2024 SK chemicals Sustainability Report

WE CARE FOR THE FUTURE.

HEALTHCARE, EARTHCARE

SK 케미칼

ABOUT THIS REPORT

Since 2010, SK chemicals Co., Ltd. has been publishing its annual sustainability report to communicate the company's performance and activities in creating economic and social value to stakeholders.
Through the 2024 Sustainability Report, SK chemicals aims to transparently disclose its ESG management strategy, goals, and performance to build a sustainable future.

In this report, the term circular recycle refers to chemical recycling, which involves chemically decomposing waste plastics and recycling them into raw material form. Recycled products refer to those made using raw materials recycled from waste PET, while bio-based product refer to contain biomass-derived feedstock. Recyclable products are those classified under Recycle Identity Code(RIC) No. 1, indicating that they can be recycled together with PET(Polyethylene Terephthalate).

Reporting Scope

This report covers the headquarters and R&D center(ECO Lab), as well as the business sites in Ulsan and Cheongju(S House) operated by SK chemicals. It also includes information on major domestic subsidiaries, SK bioscience and SK multi utility. All business activities relevant to financial reporting are included. Where the reporting scope differs, details are specified in the main text or footnotes.

Reporting Period

The primary reporting period is from January 1, 2024, to December 31, 2024, with some qualitative performance data including activities from the first half of 2025. To identify trends and changes, data from the past three years(2022~2024) is reported. Any changes from the previous report are accompanied by explanations of the items and reasons. This report was published in June 2025 and follows an annual reporting cycle.

Reporting Principles

This report has been prepared in accordance with the GRI(Global Reporting Initiative) Standards 2021. As a member of the UN Global Compact(UNGC), SK chemicals outlines its efforts to implement the 10 principles in the areas of human rights, labor, environment, and anti-corruption, as well as to contribute to the Sustainable Development Goals(SDGs). The report also considers industry-specific standards from the Sustainability Accounting Standards Board(SASB) and incorporates recommendations from the Task Force on Climate-related Financial Disclosures(TCFD). All financial data complies with the Korean International Financial Reporting Standards(K-IFRS).

Assurance

This report has been assured by the Korea Management Registrar(KMR) to enhance transparency in the communication of SK chemicals' sustainability management activities to stakeholders. The assurance was conducted in accordance with the AA1000AS standard, at a Moderate Level, Type 2. The scope of assurance includes the content in this report and the GRI Table published on the SK chemicals website. The detailed assurance statement can be found on page 188-189 of this report.

Additional Information

- SK chemicals' website
- Sustainability Report
- GRI Table

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CEO Message

SK chemicals is committed to creating a sustainable future for all stakeholders—including shareholders, customers, suppliers, and employees—based on its mission of "enhancing human health and protecting the environment."

Dear valued stakeholders,
Thank you for your continued interest and support for SK chemicals.

In 2024, global economic stagnation, heightened raw material price volatility, and escalating geopolitical risks continued to pose significant challenges to the business environment. The domestic chemical industry faced an unprecedented downturn due to supply surpluses from China. Despite these adverse conditions, SK chemicals continued to expand its portfolio of high-value-added products such as copolyester through differentiated technological capabilities. The company also delivered circular recycling solutions tailored to the needs of domestic and global brand owners, expanding its market presence. In the Pharma business, we maintained stable sales of core products while exploring new growth opportunities. As a result of these efforts, SK chemicals recorded its highest-ever standalone performance, achieving revenue of KRW 1.3405 trillion and operating profit of KRW 111.1 billion.

The year 2024 also marked a significant milestone in advancing sustainable management.

With an unpredictable business climate, increasing pressure to comply with emerging global non-financial disclosure regulations, growing demands for climate response capabilities, and heightened attention to supply chain and human rights issues, companies are now expected to actively address environmental and social challenges while strengthening risk management. To achieve sustainable growth, SK chemicals is deepening its integration of environmental, social, and governance(ESG) practices across all operations.

Following the approval of our science-based GHG reduction targets by SBTi in 2023, we are executing initiatives such as the adoption of renewable energy and expansion of low-carbon fuels. In parallel, we are enhancing transparency in human rights practices for employees, suppliers, and local communities, conducting ESG assessments and support for supply chain sustainability, and strengthening the Board's diversity and expertise in pursuit of a better future. SK chemicals' commitment to sustainable management has been recognized externally as well. We maintained an AA rating in the MSCI ESG evaluation for two consecutive years, received the highest A+ rating from the Korea ESG Standards Institute(KCGS) for the third consecutive year, and earned a leadership-level 'A' in the Climate Change and Water Security categories of the Carbon Disclosure Project(CDP). These results reaffirm our standing as a top-tier ESG performer in both domestic and international assessments.

Kim Cheol,
CEO of SK chemicals

Ahn Jae-hyun,
CEO of SK chemicals

SK chemicals will drive sustainable innovation through a Closed Loop Solution.

To contribute to carbon neutrality and address plastic waste issues, SK chemicals is building a complete resource circularity system by minimizing resource loss throughout the product life cycle and designing products for recyclability. This core strategy not only fulfills our mission but also strengthens competitiveness and creates growth opportunities. We aim to generate shared value in collaboration with various stakeholders, including customers and suppliers. Through the continued advancement of our proprietary technologies, we will reinforce our position in specialty materials and ensure business sustainability. At the same time, we will expand the long-term value of our Pharma business to support healthier lives for the public.

Through unwavering R&D and investment, SK chemicals will strengthen its fundamental competitiveness and strive to become a Sustainable Material & Solution Global Leader, driving a sustainable future

We kindly ask for your continued interest and support on our journey to protect the planet and enhance human health.

Thank you.

Company profile

About the Company

Company Overview

Since its founding in 1969 as Sunkyung Synthetic Textiles, SK chemicals has pursued the mission of "enhancing human health and protecting the environment," leading innovation and growth in Korea's chemical materials and life sciences sectors. In pursuit of harmony between people and the planet, SK chemicals is advancing toward becoming a global leader in eco-friendly materials and life sciences through its Green Chemicals business, which delivers sustainable material solutions, and its Pharma business, which provides total healthcare solutions centered on innovative pharmaceuticals.

As of December 31, 2024

Company Name	SK CHEMICALS CO., LTD
Business Description	Development, production, and sales of eco-friendly resins and pharmaceuticals
Headquarters	310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do(Sampyeong-dong)
Website	www.skchemicals.com
Sales	KRW 1.7368 trillion
Operating loss	KRW 45.2 billion
Net loss for the period	KRW 4.4 billion

* Financial results are prepared on a consolidated basis

For more details, you can visit the website.

Key Business Areas

SK chemicals plays a leading role in protecting the environment and promoting human health by offering eco-friendly materials and total healthcare solutions. Backed by world-class technology, expertise, and production facilities, the company continues to grow by expanding its business portfolio, forming strategic partnerships, and reinforcing investments and R&D capabilities.

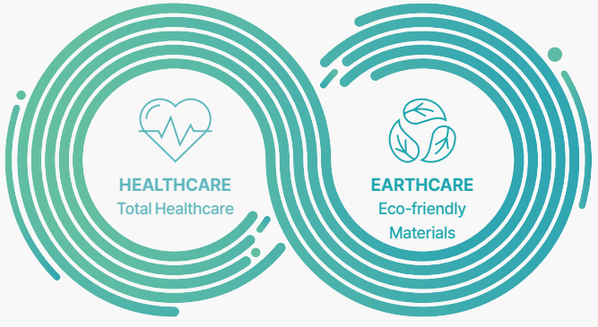
The Green Chemicals business is enhancing existing operations such as high-performance copolyesters and adhesives and coatings, while also expanding into the recycled plastic raw materials sector—including CR-Copolyester and CR-PET—based on its globally top-tier circular recycling technology. In addition, by improving the cost competitiveness of copolyesters, SK chemicals is strengthening its position in the high-value specialty materials market and actively exploring new applications through customer collaboration. The company is also expanding its portfolio of bio-based materials, such as ECOTRION(PO3G), to deliver differentiated products tailored to customer needs.

The Pharma business continues to grow by supplying high-quality natural and synthetic pharmaceuticals to domestic and global markets, supported by ongoing R&D and strengthened global partnerships. With a focus on synthetic new drugs, natural products, and biotechnology, the company is generating meaningful achievements in global markets through concentrated research and investment across these areas.

Mission and Vision

VISION

We aspire to become a global leader in eco-friendly materials and total healthcare solutions.



We enhance human health and protect the environment.

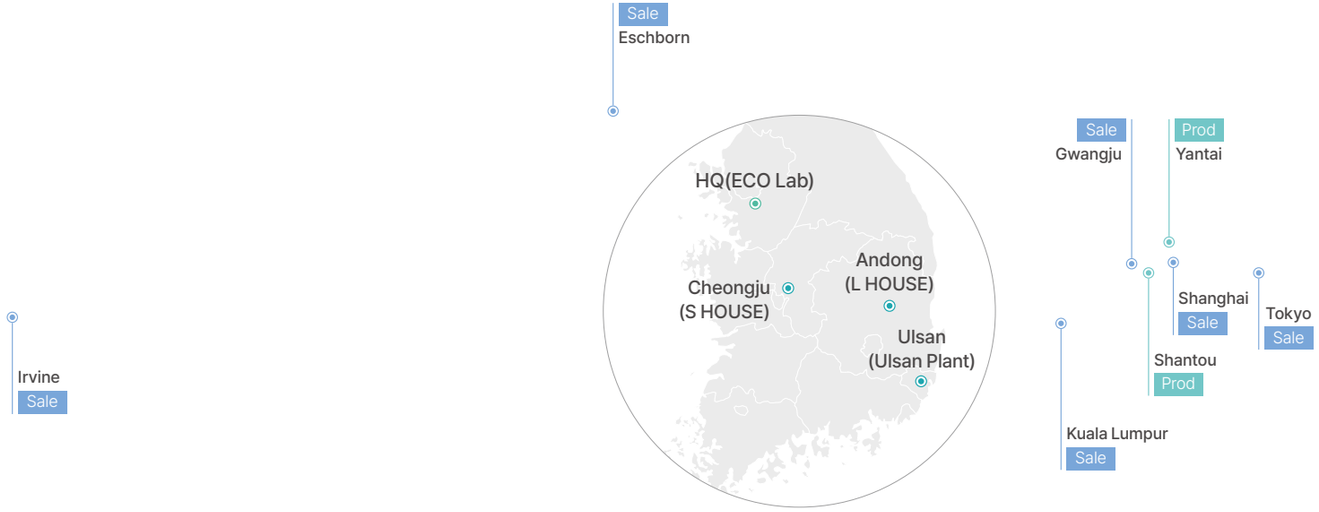
MISSION

Status of Subsidiaries and Affiliates

SK chemicals operates its Ulsan Green Chemicals Plant, Andong SK bioscience Plant, and Cheongju Pharmaceutical Plant, with its headquarters and R&D center(ECO Lab) located in Pangyo, Seongnam-si, Gyeonggi-do. The company has built a strong global network, with overseas sales subsidiaries in the United States, Germany, Shanghai(China), and Malaysia, as well as offices in Japan and Guangzhou(China), and production facilities in Yantai and Shantou(China). These operations have earned international recognition for their excellence.
As of 2024, SK chemicals has a total of 14 consolidated subsidiaries, comprising three domestic companies—SK bioscience, SK multi utility, and SK chemicals Daejung—and 11 overseas companies based in countries including the United States, Germany, and China.

Domestic Offices and Global Network

- HQ
- Domestic Plants
- Overseas Plants
- Sales Offices



Status of Subsidiaries/Investors

(As of Dec.31,2024)

Consolidated Subsidiaries

Equity interest

SK chemicals Yantai Co., Ltd. 100%
Established 2020.06.15
Yantai, China
Resin Manufacturing

Shuye-SK chemicals(Shantou)Co., Ltd. 100%
Established 2023.03.06
Shantou, China
Plastic Manufacturing

SK multi utility Co., Ltd. 100%
Established 2021.12.01
Ulsan, South Korea
Manufacturing

SK Chemicals GmbH 100%
Established 2008.06.20
Eschborn, Germany
Wholesale

SK Chemicals America 100%
Established 2002.07.19
California, USA
Wholesale

SK chemicals-Daejung Co., Ltd. 50%
Established 2020.04.01
Seongnam, South Korea
Organic Solvent Manufacturing

SK chemicals Shanghai Co., Ltd. 100%
Established 2018.11.02
Shanghai, China
Management Consulting

SK Chemicals Malaysia 100%
Established 2020.08.25
Kuala Lumpur, Malaysia
Management Consulting

SK bioscience Co., Ltd. 66%
Established 2018.07.01
Seongnam, South Korea
Pharmaceutical Manufacturing

Consolidated Companies of SK bioscience

- **SK bioscience USA, Inc.**
- **SK bioscience Germany GmbH**
  - IDT Biologika GmbH
  - IDT Biologika Corporation[1)]
  - Technik-Energie -Wasser Servicegesellschaft GmbH

1) IDT Biologika Corporation is a subsidiary of IDT Biologika GmbH acquired by SK bioscience.

Affiliated Companies

Share

JSI Co., Ltd. 40%
Resin Manufacturing Manufacturing

HDC Polyol Co., Ltd. 20%
Manufacturing

Joint Venture

ENTIS Co., Ltd. 50%
Manufacturing

Key Business Areas

Green Chemicals Business

Business Areas

Resins

High-performance Materials

Bio Materials

Business Overview

SK chemicals has established itself as a leading company in the domestic and global chemical industry by producing high-value-added chemical materials. These include highly transparent and heat-resistant copolyesters free of bisphenol derivatives(such as BPA), thermoplastic elastomers with excellent heat resistance and mechanical strength, and polyester adhesives used as base materials for adhesives and coatings across various industrial sectors. In addition, the company is advancing as a global leader by developing eco-friendly materials such as recycled plastics and bio-based plastics that contribute to environmental protection.

Key Business Performances in 2024[1)]

Revenue Share

85%

Revenue

KRW 1,473.6 billion

Operating Profit

KRW 87.1 billion

1) Data before internal transaction offsetting

Business Strategy

Competition in the global chemical industry is shifting away from traditional price-based models toward technology centered on sustainability and circular economy principles, including eco-friendly and recycling innovations. In particular, since the amended Basel Convention took effect in 2021, plastic waste has been classified as a controlled material for export and import. As a result, the ability to secure waste plastic, a key recycling feedstock, within regional markets has become a critical competitive factor.

At the same time, regulations on plastic use are expanding worldwide and becoming increasingly stringent. The European Union is introducing regulations aimed at a comprehensive reduction in plastic use that go beyond conventional recycling methods. In the United States, legislation related to recycled plastics is progressing at the state level. Major plastic-producing and consuming countries have implemented stricter regulations, including bans on the import of plastic waste, mandates on separate waste collection, and restrictions on the production and use of single-use plastics. Korea has also introduced de-plasticization policies to support a transition toward a circular economy.

In response to these evolving market conditions and in order to maintain a competitive edge, SK chemicals' Green Chemicals business is actively pursuing strategies such as the development of new products containing recycled materials, the procurement of renewable feedstock through regional hubs, and the establishment of a vertically integrated production system linking monomer and polymer. SK chemicals will continue to grow as a global leader in eco-friendly and recycled materials by leveraging its unmatched technological expertise and marketing competitiveness.

Key Product Overview

Green Materials Business

SK chemicals is leading the market by offering a Sustainable Polyester Solution based on Recycled solution(Circular Recycle) and Recyclable solution. Although competition in the copolyester market is intensifying due to the entry of Chinese companies, SK chemicals plans to maintain its competitive edge by shifting its portfolio toward high-value-added applications and advancing technologies for bio-based plastics and recycling.

SKY GREEN

SKYGREEN

SKYGREEN is a high-performance PETG product that is BPA-free and features excellent transparency, chemical resistance, and processability. Leveraging its outstanding clarity, chemical durability, and moldability, SKYGREEN is widely used across a broad range of applications, from consumer goods such as cosmetic containers to industrial materials including electronic components and construction products.

ECOZEN

ECOZEN

ECOZEN is a copolyester product that contains biomass-derived components(carbon content ranging from 1.5% to 18%) and offers enhanced heat resistance. It is free from Bisphenol A(BPA) and phthalate-based plasticizers, and meets food contact material requirements in Korea, the United States, Europe, China, and Japan. With its excellent properties, ECOZEN is used in a wide range of applications, including electronics, food containers, and baby products.

SKY PET CR

SKYPET CR

SKYPET CR, a circular recycled PET, is manufactured using depolymerization technology that breaks down waste plastic at the molecular level and returns it to raw material form. It offers the same quality and Mechanical properties as petroleum-based PET and meets the U.S. FDA standards for food contact materials. As a result, it is safe for use in contact with food and maintains its quality and functionality even after multiple recycling cycles, making it suitable for use across various applications.

ECOTRIA

ECOTRIA

ECOTRIA is a brand that encompasses SK chemicals' recycling business portfolio. It includes ECOTRIA CLARO, which replaces previously non-recyclable materials, and copolyester products that contain recycled content. ECOTRIA CLARO is a crystalline material that retains the excellent transparency and chemical resistance of copolyesters and is recyclable with PET. Among these, 11 products have been verified for recyclability through the APR Design® guidelines of the Association of Plastics Recyclers(APR) in the United States, and 10 products have been verified by the European PET Bottle Platform(EPBP). Products containing recycled content are made using recycled raw materials such as waste PET bottles. In 2021, SK chemicals began mass production of ECOTRIA CR, a circular recycled product, and is able to provide products certified under ISCC[1] Plus.
ECOTRIA delivers transparency, physical properties, and moldability comparable to conventional copolyesters, making it suitable for use in cosmetic containers, packaging materials, household goods, and various other applications.

SKY DMT

SKYDMT

SKYDMT is used as a raw material in a variety of applications, including films, fibers, engineering plastics, and adhesives. Since its first production in 1989, SK chemicals has maintained world-class quality control based on over 30 years of experience. Its superior quality has been widely recognized by both domestic and international customers.

SKY CHDM

SKYCHDM

SKYCHDM is a monomer used as a raw material in polyester polymer resins, polyurethane resins, and resins for coatings. It can be used as a substitute for, or in combination with, conventional aromatic or aliphatic raw materials. By incorporating the strengths and addressing the limitations of existing materials, SKYCHDM enhances various resin properties. Depending on the blending ratio, it can significantly improve the transparency and processability of polyester resins.

1) International Sustainability & Carbon Certification

Functional Materials

SK chemicals delivers functional value to customers through products with outstanding durability, heat resistance, and chemical resistance.

SKYBON

SKYBON is a high molecular weight polyester resin used as an adhesive and coating resin in a wide range of applications, including steel plates for home appliances and food can coatings. Its flexibility and excellent adhesion make it highly versatile. The hotmelt version, which does not use organic solvents, offers excellent wash resistance and is increasingly applied as an adhesive resin for heat transfer films in apparel. In response to the growing trend of avoiding organic solvents, SK chemicals is also expanding its portfolio of water-based polyester resins.

SKYTRA

SKYTRIA is a PET-based compound product designed for compounding applications. It offers excellent heat resistance, chemical resistance, and mechanical strength. SKYTRA 5220FR contains post-consumer recycled(PCR) PET.

SKYPEL

SKYPEL is a polyester-based thermoplastic elastomer that combines the elasticity of rubber with the moldability of engineering plastics. It is widely applied in industries, such as automotive, electronics, and film and fiber, where materials are required to withstand extreme conditions and deliver high-performance property.

SKYPURA

SKYPURA is the brand name of PCT(Poly-Cyclohexylene Dimethylene Terephthalate) produced by SK chemicals. This super engineering plastic is designed for industrial applications requiring high heat resistance, light stability, and excellent electrical properties.

Bio Materials

SK chemicals is also developing bio-based materials, in addition to recycled materials, to reduce the use of conventional petroleum-based feedstock and contribute to a more sustainable society.

ECOTRION

PO3G(polyoxytrimethylene ether glycol) is an innovative material that replaces traditional petroleum-based polyols with 100% bio-based content. As a key raw material for polyurethane, polyols are widely used in synthetic leather, apparel, coatings, adhesives, and spandex. Compared to conventional products, ECOTRION offers enhanced softness, improved elasticity and abrasion resistance, better wearing comfort, and reduced deformation.

Life Science Business

Business Overview

SK chemicals' Pharma business focuses on the manufacturing and sale of natural and synthetic pharmaceuticals. The business continues to grow steadily by generating R&D outcomes and building strategic partnerships. Based on this foundation, SK chemicals strives to enhance the quality of life by offering diverse treatment options and is committed to realizing the value of health for humanity.

Business Areas

- Synthetic New Drugs
- Natural Products
- Vaccine

Key Business Performances in 2024[1)]

Revenue Share

36%

Revenue

KRW 624.8 billion

Operating Loss

KRW 119.3 billion

1) Data before offsetting internal transactions

Business Strategy

The global healthcare market is experiencing rapidly rising demand due to accelerated population aging. In response to evolving market conditions, the Korean pharmaceutical industry is reinforcing efforts to address national health insurance policies, drug pricing regulations, and various compliance and ethical standards. As a result, companies are focusing more on expanding competitive product portfolios and advancing into domestic and international markets. Continuous R&D investment and improved operational efficiency for profitability are also expected to drive an increase in M&A activity across the industry. As part of its mid- to long-term strategy, SK chemicals' Pharma business plans to strengthen competitiveness in its core areas, secure tangible outcomes through open innovation, and rebuild the foundation for R&D-driven growth. The company also aims to expand its C(D)MO[1)] operations and explore new business opportunities.
The company is actively developing new drugs through joint research with biotech ventures and is building capabilities in AI-driven drug discovery. In addition, SK chemicals continues to strengthen R&D capabilities and expand domestic and global partnerships while actively exploring future business opportunities. The company plans to pursue both areas closely related to its existing operations and the development of new markets. By leveraging its secured pipeline, SK chemicals will actively drive new business initiatives and solidify its position as a leading pharmaceutical company in Korea.

1) Contract (Development and) Manufacturing Organization

Key Product Overview

Pharma

The Pharma business maintains a diverse pipeline supported by strong marketing capabilities and R&D achievements. It has strengths in therapeutic areas such as the musculoskeletal and circulatory systems, generating stable revenue through medications used for inflammatory pain(arthritis and rheumatism), neurological disorders(dementia and headache), and circulatory conditions(hypertension and hyperlipidemia). SK chemicals plans to continue diversifying its product portfolio to steadily expand its market share.

JOINS

JOINS is the first natural product-based new drug approved in Korea for the treatment of arthritis. It is a herbal arthritis medication that has demonstrated comparable anti-inflammatory and analgesic effects to existing non-steroidal drugs in clinical trials, while showing fewer side effects and providing protective benefits to cartilage tissue. Since its launch in 2002, its cumulative sales surpassed KRW 600 billion as of 2024. In 2023, SK chemicals obtained regulatory approval for a high-dose formulation, JOINS F 300mg, which is expected to improve dosing convenience and broaden the product line, thereby solidifying the brand's position in the osteoarthritis market.

Ginexin-F

Ginexin-F is SK chemicals' flagship brand and the market leader in the blood circulation improvement segment. As of 2024, its cumulative sales exceeded KRW 550 billion. Manufactured using patented technology that extracts active components such as ginkgolides from ginkgo biloba leaves, Ginexin-F helps lower blood viscosity and dilate blood vessels. In 2010, SK chemicals launched Renexin, a combination of Ginexin-F and the antiplatelet agent cilostazol, offering improved efficacy and reduced side effects. In 2020, the company released Renexin CR, a controlled-release formulation that improved dosing convenience and compliance, further reinforcing its leadership in the ginkgo-based pharmaceutical market.

Wondron Patch(Rivastigmine)

Wondron Patch(Rivastigmine) is Korea's first patch-type dementia treatment developed in 2010. In 2013, it became the first generic patch-type dementia treatment approved for sale in Europe, gaining recognition for its advanced technology. The product later received approval in several countries including Australia and Colombia(2016), Mexico and Jordan(2017), Canada(2018), the United States(2019), and Brazil(2021), as SK chemicals continues to expand its presence in global markets.

Feburic

Feburic is a leading febuxostat-based treatment in Korea's gout medication market. It is widely recognized as an effective treatment option for patients with gout and holds a significant position in the market. Feburic is the top-selling febuxostat formulation in Korea, and continued growth in the domestic gout therapy segment is anticipated.

Mvix-S

Mvix-S, launched in 2011, is the world's first film-type erectile dysfunction treatment. In 2012, SK chemicals introduced a high-dose film-type formulation, establishing a diverse formulation portfolio. By innovatively converting the traditional tablet into a film dosage form, Mvix-S became thin and light enough to fit in a wallet, significantly enhancing portability and ease of use. In 2014, further formulation improvements reduced the size and dissolution time, offering even greater dosing convenience.

Suvexx

Suvexx is a newly launched migraine combination treatment introduced by SK chemicals in 2024. It combines sumatriptan, which effectively alleviates migraine symptoms, with naproxen sodium, a non-steroidal anti-inflammatory drug(NSAID) that reduces inflammation and pain. Suvexx offers comprehensive treatment for migraines of various origins. By introducing a combination formulation to a market traditionally dominated by single-agent treatments, Suvexx provides a new therapeutic option and is expected to gain traction quickly due to its effectiveness and convenience.

Trast

Trast is a patch-type treatment for knee osteoarthritis and has grown as a leading brand in Korea since its launch in 1996. Designed for direct application to affected joints, the patch minimizes the side effects of oral medications and provides long-lasting therapeutic effect for 48 hours with a single application. Since receiving its first product approval in China in 2006, Trast has continued to be exported, and SK chemicals plans to further expand into global markets.

Major Subsidiaries

SK bioscience

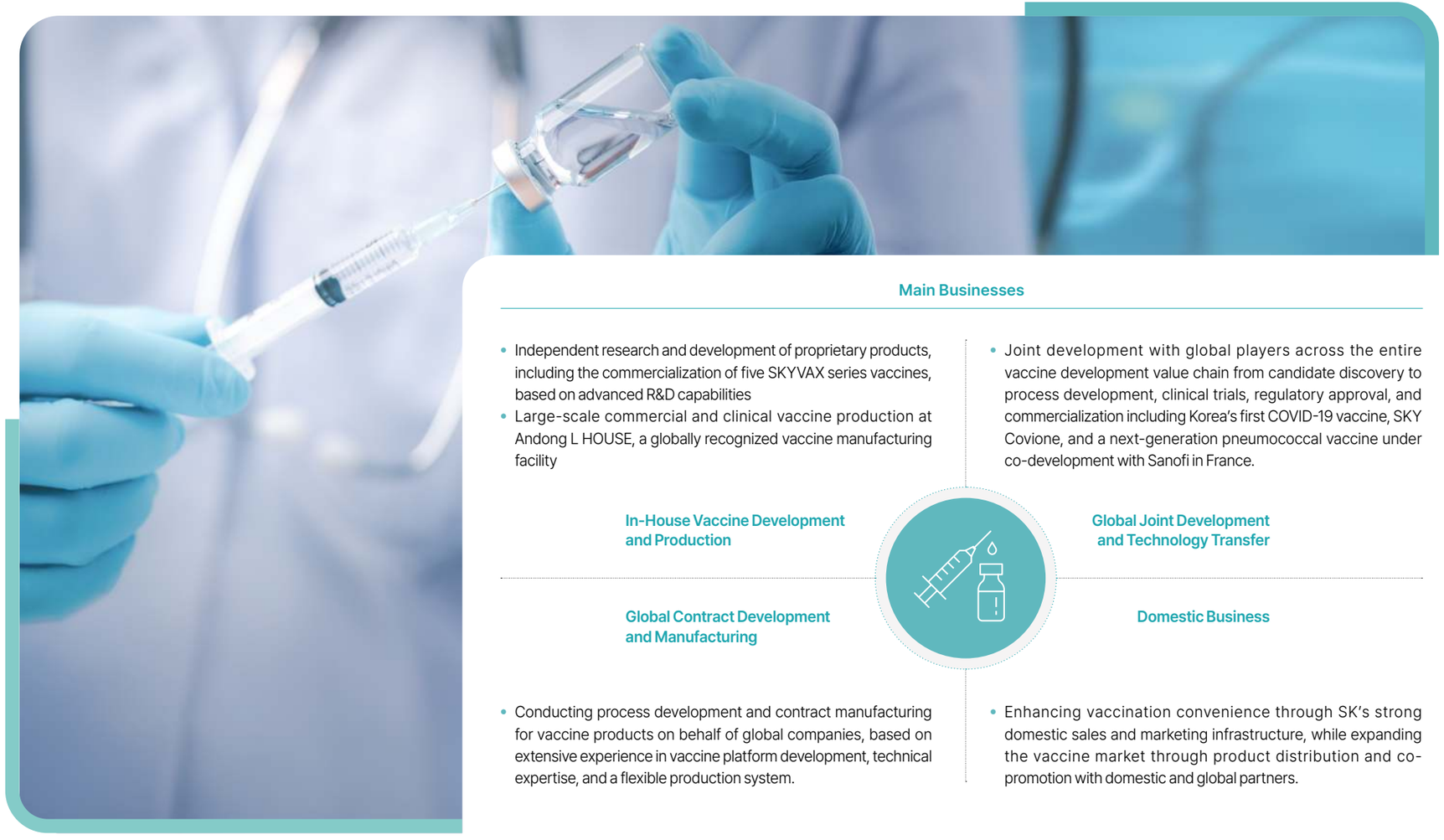
General Overview

SK bioscience was established on July 1, 2018, through a physical spin-off from SK chemicals' vaccine business unit, leveraging the capabilities accumulated over the years. With the goal of advancing human health from prevention to treatment, the company is accelerating its performance and growth. SK bioscience has built its own vaccine portfolio and continues to lead global projects. During the COVID-19 pandemic, the company successfully implemented a two-track strategy that combined global vaccine C(D)MO[1] operations with proprietary vaccine development. This enabled SK bioscience to build a high level of competence and a robust network in the vaccine sector. Based on these achievements, the company is now pursuing growth to re-emerge as a Global Top 10 Vaccine Company.

1) Contract Development and Manufacturing Organization: outsourced development and manufacturing of pharmaceutical products.

As of Dec. 31, 2024

Company Name	SK bioscience Co., Ltd.
Business Description	Research, development, production, and sales of vaccines and biopharmaceuticals
Headquarters	310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
Website	www.skbioscience.com
Sales	KRW 267.5 billion



Main Businesses

In-House Vaccine Development and Production

- Independent research and development of proprietary products, including the commercialization of five SKYVAX series vaccines, based on advanced R&D capabilities
- Large-scale commercial and clinical vaccine production at Andong L HOUSE, a globally recognized vaccine manufacturing facility

Global Joint Development and Technology Transfer

- Joint development with global players across the entire vaccine development value chain from candidate discovery to process development, clinical trials, regulatory approval, and commercialization including Korea's first COVID-19 vaccine, SKY Covione, and a next-generation pneumococcal vaccine under co-development with Sanofi in France.

Global Contract Development and Manufacturing

- Conducting process development and contract manufacturing for vaccine products on behalf of global companies, based on extensive experience in vaccine platform development, technical expertise, and a flexible production system.

Domestic Business

- Enhancing vaccination convenience through SK's strong domestic sales and marketing infrastructure, while expanding the vaccine market through product distribution and co-promotion with domestic and global partners.

ESG STORY

16
Sustainability Strategy

Sustainability Strategy

Key Business Areas and Action Strategies

SK chemicals has established its ESG strategy by considering the company's business and activities with the aim of contributing to a sustainable future. The company is actively responding to climate change by expanding low-carbon products, building a circular economy, and promoting sustainable businesses such as healthcare solutions. SK chemicals is also working to create a virtuous ecosystem with a future-oriented perspective while contributing to the improvement of human quality of life. Furthermore, to minimize negative impacts and maximize positive impacts on the environment, society, and people throughout its business operations, the company is implementing key strategies and initiatives in the areas of environment, social, and governance, and is actively practicing sustainable management.

SUSTAINABLE BUSINESS

Through recycled and Eco-freindly materials, as well as healthcare solutions, SK chemicals creates social and environmental value and drives sustainable growth.

CORE STRATEGY

CORE ACTIVITY

Climate Change Response	Circular Economy Expansion	Environmental Impact Minimization

Leading low-carbon transition	- Implementing Net Zero & RE100 - Reducing energy consumption
Activating circular economy	- Expanding sales of recycled and bio-base material products - Building a circular economy by reducing Waste and increasing recycling rates within the value chain
Strengthening environmental risk management	- Minimizing environmental pollutant emissions - Reducing water resource usage and enhancing efficiency

Strengthening Human Rights Management	Supply Chain ESG Management
Establishing Safe Business Locations	Community Contribution

Zero human rights issues	- Diagnosing and managing stakeholders' human rights risks
Strengthening supply chain ESG capabilities	- Enhancing support for supply chain ESG diagnosis and capability building
Strengthening health and safety management system	- Advancing health and safety management systems and promoting safety culture
Enhancing community engagement and cooperation	- Strengthening social contribution activities with member participation

Board of Directors-centered Management	Advancing Management Systems

Strengthening board of directors' responsibility management	- Enhancing board of directors' independency, expertise and diversity - Strengthening disclosure of board of directors' activities and performance
Strengthening ethical management and information security	- Advancing internal control systems in line with global standards

Sustainability Strategy

Status of ESG Key Task Implementation

	Topics	2024 KPI(Key Performance Indicator)	2024 Performance	KPI: 2025 Goal(or Mid-to-Long Term Goal)	KPI: Execution Organization/Responsible Leader
For sustainable **Planet**	Climate Change Response	• Establish SBTi-based Scope 3 and overseas business sites greenhouse gas reduction plan	• Build greenhouse gas inventory for overseas production business sites • Calculate SKMU Scope 3 and establish SBTi-based reduction plan including MU	• Establish company-wide consolidated Scope 1 and 2 greenhouse gas measurement inventory(including overseas sales corporations and SK chemicals Daejeong)	• ESG Progress team/ESG Progress team Leader[1)]
		• Company-wide greenhouse gas emission target:260ktCO_2eq) • Ulsan Plant energy cost reduction of KRW 1.4 billion	• Reduce company-wide greenhouse gas emissions by 8% to 240ktCO_2eq compared to target • Achieve Ulsan Plant energy cost savings target of KRW 1.4 billion	• Achieve company-wide greenhouse gas emission target(260ktCO_2eq) • Achieve Scope 1 and 2 Net Zero by 2040	• Company-wide/CEO[1)] • Ulsan Plant/Ulsan Plant Manager
		• Introduce renewable energy at Ulsan Plant	• Introduce 10MW solar power vPPA at Ulsan Plant	• Review renewable energy procurement for overseas business sites by 2025 • Achieve RE100 by 2032	• China RHQ/Head of China RHQ • ESG Progress team/ESG Progress team Leader
	Activation of Circular Economy	• Invest over 50% of Chemical Research Institute's research budget in clean technology(recycled materials/bio materials) - Develop products easy to recycle and establish circular recycling production base	• Invest over 54% of Chemical Research Institute's research budget in clean technology(recycled materials/bio materials) - Launch recyclable product(CLARO300) and develop circular recycling base technology	• Maintain clean technology research budget at 50% until 2028 at Chemical Research Institute - Develop products easy to recycle and secure competitiveness in circular recycling technology	• Chemical Research Institute/Institute Director[1)]
		• Maintain Gold grade in waste recycling certification(ZWTL)	• Maintain Gold grade in waste recycling certification(recycling rate 97%)	• Maintain Gold grade in waste recycling certification by 2025	• SHE Team/SHE Director[1)]
	Minimization of Environmental Impact	• Reduce hazardous chemical(Solvent Naphtha) usage by 60% compared to 2021	• Reduce Solvent Naphtha usage by 30% compared to 2021	• Phase out Solvent Naphtha usage by 2029	• Functional Material Business Unit/Functional Material Business Unit Leader[1)]
		• Water intake below 3.51 million tons(Target business sites: SK chemicals' Ulsan Plant, SKMU)	• Water intake of 4.48 million tons(Target business sites: SK chemicals' Ulsan Plant, SKMU) - Water usage increased due to plant expansion and production increase	• Water intake below 2.04 million tons at Ulsan Plant by 2025 • Water intake below 7.44 million tons at SKMU by 2025 - Water intake increased due to operation of new combined heat and power generation facility at SKMU	• Ulsan Plant/Ulsan Plant Manager[1)] SKMU/Power Technology Director[1)]
		• Manage emission concentration at 50% of legal emission concentration standards(Water Quality: COD/BOD/SS, Air: NOx/SOx/Dust)	• Achieve management of water and air pollutant emission concentrations at approximately 50% of legal emission concentration standards	• Achieve management of water and air pollutant emission concentrations at approximately 40% of legal emission concentration standards by 2025	• SHE Team/Head of SHE Team[1)]
For sustainable **Society**	Strengthening Human Rights Management	• Conduct Human Rights Impact Assessment(Headquarters/Ulsan Plant) and implement mitigation measures	• Conduct Human Rights Impact Assessment and implement short-term improvement tasks • Publish Human Rights Impact Report	• Expand human rights due diligence(including overseas subsidiaries) • Continuously implement improvement tasks and verify effectiveness	• ESG Progress team/ESG Progress team Leader[1)]
	Supply Chain ESG Management Establishment of	• Establish supply chain ESG policy and verify supply chain ESG assessment performance	• Establishment of Supply Chain ESG Policy • Expansion of ESG Element Coverage in Supply Chain Assessment Items	• Expansion of ESG Assessed Enterprise Coverage and Improvement of High-Risk Groups	• Finance Group/Head of Finance Group[1)]
	Safe Workplace	• Lost Time Injury rate(LTIR): 0.16	• Establishment of Safety Management System at All Business sites • Acheive Lost Time Injury rate(LTIR): 0.06	• 2025 Company-wide Lost Time Injury rate(LTIR): 0.07 • Advancing SHE and Strengthening On-site Execution Capability - Establishment of SHE Operation at Overseas Subsidiaries by 2026	• SHE Team/SHE Planning Director[1)]
		• Expansion of Members' Social Contribution Activities • Expansion of Business-linked Social Contribution Activities	• Members Participating in Social Contribution(633 persons) • Signed MOU for 'Brain Age Youth Project' with Seo-gu Office, Gwangju Metropolitan City	• Opening of Humanities Happiness Center Library for Suwon City Residents • 3% of Estimated Operating Profit Invested in Community Contribution Activities	• ESG Progress team/ESG Progress team Leader
For sustainable **Governance**	Board-centered Management	• Appointment of Female Outside Director	• Securing Board Diversity through Appointment of Female Outside Director	• Strengthening Board Management and Supervision	• BOD Secretariat/BOD Secretariat Director[1)]
	Strengthening Ethical Management/ Information Security	• Maintaining ISO 37001(Anti-Corruption Management System) and ISO 27001(Information Security Management System) Certifications	• Maintaining ISO 37001 and ISO 27001 Certifications	• Strengthening Company-wide Compliance Risk Management • Maintaining ISO 27001(Information Security) Certification by 2025	• Legal Group/Head of Legal Group[1)] • DT Group/Head of DT Group[1)]

1) Responsible Leader is evaluated with grades S, A, B, C based on achievement level against KPI goals, and evaluation results are linked to the compensation system.

ESG HIGHLIGHT

19 Domestic and Overseas Initiatives Participation

20 DBL(Double Bottom Line)

21 Double Materiality Assessment

Domestic and Overseas Initiatives Participation

Expansion of Initiative Support and Participation

To transparently disclose its ESG management goals and performance, SK chemicals is expanding the scope of ESG information disclosure in accordance with global frameworks such as SASB and TCFD. The company participates in the Carbon Disclosure Project(CDP) and has received approval for its near-term science-based targets from the Science Based Targets initiative(SBTi). As a result of these efforts, SK chemicals was included in the DJSI KOREA Index for the fourth consecutive year in 2024 and was selected as an S&P Global Sustainability Yearbook member for the second consecutive year, having received the second-highest score among global chemical companies. The company also received an AA rating from MSCI, an A rating—the highest level—in CDP evaluations for climate change and water security and maintained the highest A+ rating for three consecutive years from the Korea ESG Standards Institute(KCGS), reaffirming its excellence in evaluations by major global ESG rating agencies.

Status of Global Initiative Participation

RE 100

RE100 is a global energy transition initiative that aims to convert 100% of the electricity used by companies to renewable energy. In Korea, the foundation for this transition began through the Korea-style RE100(K-RE100), and SK chemicals joined K-RE100 in June 2022 in support of this effort.

TCFD

In July 2022, SK chemicals declared its support for the TCFD and published its first TCFD report in September.

SBTi

SK chemicals joined the Science Based Targets initiative(SBTi) in February 2023 and became a member of the 1.5°C Business Ambition Alliance. The company received approval for its GHG reduction targets in the same year.

CEPI

In 2022, SK bioscience and the Coalition for Epidemic Preparedness Innovations(CEPI) signed a funding agreement to support R&D for the development of mRNA vaccine platform technology.

International Vaccine Institute

In November 2021, to honor the contributions of the late Vice Chairman Park Mahn-hoon, who played a key role in advancing research capabilities of SK bioscience, SK bioscience and the International Vaccine Institute(IVI) established the Park Mahn-hoon Award. Each year, the award and a cash prize are presented to individuals or organizations that have contributed to the discovery, development, distribution, and advancement of global health through vaccines.

External ESG Evaluation Results

DJSI

- Included in the DJSI Korea Index for four consecutive years
- Selected as a 2024 Sustainability Yearbook Member

MSCI

AA Rating

CDP

Climate Change, Water A

KCGS

Maintained A+ for 3 consecutive years

EcoVadis

Gold Medal

DBL
Double Bottom Line

Creating and Expanding SK DBL Performance

SK Group creates social value by enhancing both economic value(EV) and social value(SV) through its business activities. By addressing social issues and pursuing employee well-being, the group contributes to society while generating shared value. Through the Double Bottom Line(DBL) approach, which manages both economic and social value, SK measures the social value of its indirect economic contributions, environmental performance, and social performance, providing clear indicators and benchmarks. SK chemicals discloses the results of this social value measurement annually alongside its economic performance.

Social Value

Under the mission of enhancing human health and protecting the environment, SK chemicals creates social value by producing and selling eco-friendly products and promoting the well-being of its stakeholders.

Economic Value

In 2024, SK chemicals recorded annual revenue of KRW 1.7368 trillion on a consolidated basis under Korean International Financial Reporting Standards(K-IFRS).

Performance of Social Value Creation

Indirect Economic Contribution Performance

Indirect economic contribution refers to the value a company generates for society through its business activities. This includes expenses such as employee wages and benefits, dividends paid to shareholders, taxes paid to the government, and welfare benefits provided to employees.

Environmental Performance

Environmental performance consists of two areas: the impact that a company's products and services have on the environment, and the degree of environmental pollution generated during the production process.

Social Performance

Social performance measures the social value created through improvements in customer quality of life, consumer protection during the purchasing process, contributions to society through fair labor practices and shared growth, and support for local communities.

Employment

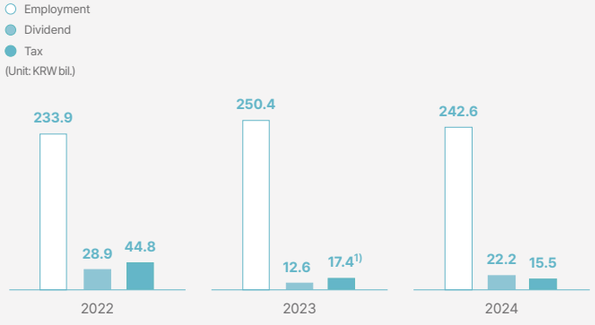
SK chemicals strives to continuously improve its performance in the area of employment by increasing employee headcount and wages.

Distribution

SK chemicals maintains a dividend payout ratio of approximately 30% of its separate net income.

Tax Payment[1)]

Due to a decline in operating profit, national and local tax payments decreased, resulting in lower performance in the area of tax contribution.

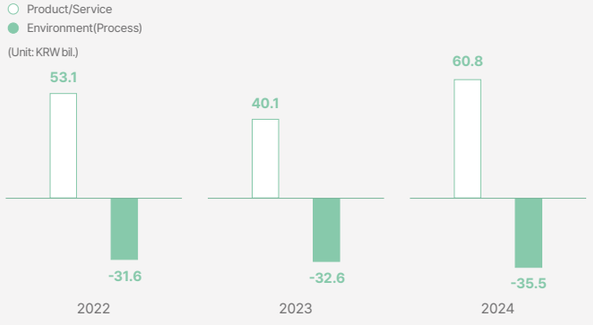


Product/Service

The performance in the products and services category improved due to increased sales of socially valuable products such as ECOZEN and ECOTRIA.

Environment(Process)[2)]

In the environmental(processing) category, which measures factors such as water usage, greenhouse gas emissions, air and water pollutants, and waste, the performance declined due to increased water consumption and GHG emissions.



Quality of Life

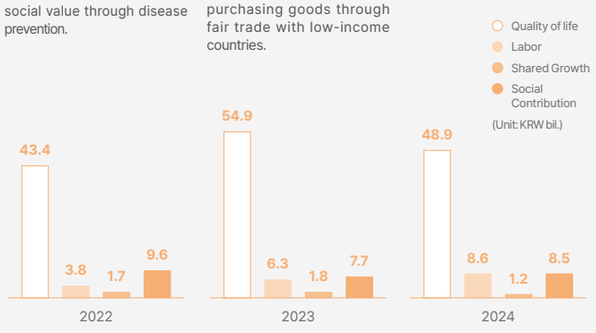
SK bioscience contributes to improving quality of life by expanding the supply of shingles vaccines. In 2024, the company supplied a total of 5.84 million doses[3)], creating meaningful social value through disease prevention.

Labor, Shared Growth

SK chemicals provides stable welfare benefits to employees through initiatives such as parental leave and vaccination support and takes the lead in consumer protection by purchasing goods through fair trade with low-income countries.

Social Contribution

SK chemicals strives to allocate 3% of its operating profit to social contribution activities.



SK chemicals' social value performance is linked to the United Nations Sustainable Development Goals (UN SDGs) for a sustainable future.

1) Data revised due to changes in social value calculation method related to tax payment 2) The scope of greenhouse gas emissions calculation within Environment(Processing) is limited to Scope 1 and 2. 3) 1 dose = a single dose of vaccination

Double Materiality Assessment

Double Materiality Assessment

SK chemicals has conducted a double materiality assessment annually since 2022 and publishes its sustainability report based on the results. The assessment involves both internal and external participation to understand stakeholders' expectations and concerns and simultaneously evaluates the impact of the company's business on the environment and society(impact materiality) as well as the influence of external ESG factors on the company's financial performance(financial materiality). To enhance the reliability of the assessment, the results are reviewed by the Board of Directors each year and managed through integration into the company-wide Enterprise Risk Management(ERM) system. Key impacts and corresponding responses to risks and opportunities identified through the assessment are incorporated into the company's strategy to reinforce business continuity. The 2024 assessment was conducted in accordance with the topic selection principles of the GRI[1] Standards 2021 and the Materiality Assessment Implementation Guidance issued by the European Financial Reporting Advisory Group(EFRAG[2]), with improvements made to the assessment process to establish a foundation for compliance with the ESRS[3]. In particular, this year, a more in-depth approach was newly introduced that goes beyond the existing topic-based ESG evaluation to identify specific impacts, risks, and opportunities related to ESG topics and assess their materiality.

Process	Detailed Process	Results

Step 1 Understanding the Business

Deriving ESG topics relevant to the company and identifying impacts, risks, and opportunities

Internal and External Environment Analysis | Analysis of business model, strategy, and benchmarking of leading companies in the same industry

Value Chain Analysis | Identifying key business activities of upstream, own operations, and downstream major suppliers

Stakeholder Identification | Selecting stakeholder groups participating in materiality assessment

ESG Topic Selection | Grouping EU ESRS disclosure topics into 15 categories to form a long-list and selecting highly relevant topics

ESG Topic Pool Long-list (15) → ESG Topic Pool Short-list (6)

Considerations when selecting important topics

- Internal company data(previous year's key issues and ESG discussion agenda)
- ESG evaluation(MSCI) and disclosure standards(SASB)
- Material issues in the same industry(analysis of 7 companies)
- Stakeholders' concerns(investor and customer questionnaires)

Step 2 Identification of Impacts, Risks and Opportunities

Identifying pathways of impacts, risks, and opportunities related to ESG topics

Based on laws/regulations, stakeholder's views, and media materials, identifying how business activities within the value chain impact environment and society, as well as how external ESG factors affect the company's financials.

Environmental and Social Impact

Business Activities	Environmental and Social Impact	Characteristic Classification
Identifying business activities within the value chain	Identifying impacts of activities on environment and society	Positive/Negative & Actual/Potential

Financial Risks and Opportunities

External Factor	Financial Risks and Opportunities	Characteristic Classification
Identifying business activities within the value chain	Identifying factors affecting the company's financials	Risk/Opportunity

ESG Topic Pool Short-list(6)

E	E	E
Climate Change and Energy	Pollution(Water/Soil)	Circular Economy
S	**S**	**G**
Human Resources	Employee Safety and Health	Ethical Management

Identification of Impacts, Risks and Opportunities

Identification of impacts related to topics

21	13
Environmental and Social Impact	Financial Risks and Opportunities

Step 3 Assessment of Impacts, Risks, and Opportunities

Conduct assessment of impact and risk·opportunity levels

- Set assessment criteria and threshold scores reflecting EU ESRS requirements
- Select assessment items for internal/external stakeholders participating in the assessment
- Conduct online survey and provide relevant information for reference during assessment

Environmental and Social Impact		Financial Risks and Opportunities
Severity (scale + scope + remediability[4]) and likelihood[5]	+	Magnitude and Likelihood

↓

Impact

Assessment of impacts, risks, and opportunities through stakeholder engagement

Category	Stakeholder		Execution Method
Online Survey	Internal	Key ESG-related departments	• Impact , risk, and opportunity assessment
	External	Suppliers, customers, government associations, Community, investors, etc.	
Round table	Internal	Business/Strategy/Research Institute/Support Department team leaders	• Share expert opinions from related departments • Collect suggestions on managing impacts, risks, and opportunities

Step 4 Selection of Material ESG Topics

Finalizing material ESG topics based on survey results

- Reporting survey results and roundtable discussions to management and the ESG Committee under the Board of Directors
- The ESG Committee conducts a final review of each impact, risk, and opportunity related to ESG evaluation topics and confirms three material topics: Climate change and energy, circular economy, and human resources.

Conducting Materiality Assessment

Selection of Material Impacts

7	5
Environmental and Social Impacts	Financial Risks and Opportunities

Finalization of Material ESG Topics

Climate Change and Energy	Circular Economy	Human Resources

1) GRI: Global Reporting Initiative 2) EFRAG: European Financial Reporting Advisory Group 3) ESRS: European Sustainability Reporting Standards 4) Assess only in case of negative impact 5) Assess only in case of potential impact

Double Materiality Assessment

Double Materiality Assessment Results

Environmental and Social Impact Assessment

SK chemicals analyzed business activities within the value chain related to ESG topics and assessed 21 impacts on the environment and society(11 environmental, 8 social, and 2 governance).

Area	Topic	Type	Description	Scopes of Impact[1]				Impact Magnitude[2]
				Business Division	Up-stream	Own Operation	Down-stream	
Environment	Climate Change and Energy	Negative/Actual	Environmental impact caused by greenhouse gas emissions during raw material manufacturing process	Green Chemicals				7.6
		Negative/Actual	Environmental impact caused by greenhouse gas emissions during product manufacturing process	Green Chemicals		●		7.5
		Positive/Actual	Contribution to greenhouse gas emission reduction by reducing fossil fuel use through renewable energy usage	Overall	●	●	●	7.6
		Negative/Actual	Environmental impact caused by greenhouse gas emissions during transportation within the value chain	Green Chemicals	●	●		6.5
		Negative/Actual	Environmental impact caused by greenhouse gas emissions throughout the pharmaceutical product manufacturing process	Pharma	●	●	●	6.8
	Pollution(Water Quality/Soil)	Negative/Actual	Environmental impact such as ecosystem disruption and spread of resistant bacteria due to environmental leakage from landfill or sewer disposal of expired pharmaceuticals	Pharma			●	7.2
	Circular Economy	Negative/Actual	Environmental pollution and release of harmful substances to human health due to improper waste treatment	Overall	●	●		6.6
		Negative/Potential	Environmental impact such as resource depletion and ecosystem destruction caused by procurement of raw materials from suppliers not practicing environmental management	Overall	●	●		6.4
		Negative/Actual	Environmental ecosystem impact caused by environmental spill after disposal of plastic	Green Chemicals			●	8.3
		Positive/Actual	R&D contribution to circular economy such as developing recyclable materials	Green Chemicals		●		9.0
		Positive/Potential	Reduction of waste generation due to increased demand for circular recycled products	Green Chemicals		●		7.9
Social	Human Resources	Positive/Actual	Enhancement of member productivity, job satisfaction, and organizational culture improvement through competency and career development programs	Overall		●		7.9
		Negative/Potential	Social impact such as hindrance to innovation and creativity and continuation of social inequality due to lack of diversity within the organization	Overall		●		6.0
		Negative/Potential	Mental and psychological damage to parties involved due to workplace harassment and assault, and deterioration of organizational culture	Overall		●		7.2
		Negative/Potential	Social impact including financial loss and rights infringement of members caused by personal information leakage, identity theft, and financial fraud due to inadequate Information Security	Overall		●		7.2
		Negative/Potential	Mental and physical issues among members caused by employment instability, leading to decreased work motivation and quality of life	Overall		●		6.9
		Negative/Potential	Decline in members' work satisfaction and quality of life due to lack of culture and systems for appropriate working hours and work-life balance	Overall		●		6.6
		Negative/Potential	Restriction of children's educational opportunities and violation of dignity due to child labor and forced labor practices within the enterprise's value chain	Overall	●	●	●	6.6
	Employee Safety and Health	Negative/Potential	Physical and mental harm to SK chemicals members and suppliers' workers caused by safety accidents including serious accidents involving suppliers	Overall	●	●		6.5
Governance	Ethical Management	Negative/Potential	Disruption of sound trade order due to corruption, bribery, collusion, rebates, and other violations of Ethical Management principles	Overall		●		6.2
		Negative/Potential	Market distortion and infringement of patients' rights caused by false pharmaceutical marketing	Pharma		●		6.8

1) Upstream: suppliers, logistics, etc., own operation: SK chemicals business locations, downstream: product purchasing customers, distribution, etc.
2) Impact was evaluated on a 10-point scale, and cases scoring 7.5 or higher in the assessment were selected as significant environmental and social impacts.

Double Materiality Assessment

Double Materiality Assessment Results

Financial Risk and Opportunity Assessment

SK chemicals assessed 13 financial impacts—comprising risks and opportunities—resulting from external factors related to ESG topics(7 environmental, 5 social, and 1 governance).

Area	Topic	Impact Characteristics	Impacts	Scopes of Impact[1]				Impact Magnitude[2]
				Business Division	Up-stream	Own Operation	Down-stream	
Environment	Climate Change and Energy	Risk	Additional cost incurred for purchasing emission allowances when greenhouse gas emissions exceed allocated carbon emission quotas	Overall		●		5.6
		Risk	Increased CapEx for new facilities related to emissions reduction due to strengthened greenhouse gas emission reduction obligations	Overall		●		6.5
		Risk	Decreased sales of petroleum-based products due to strengthened packaging regulations	Green Chemicals		●		6.2
		Risk	Increased production costs due to transition to renewable energy and low-carbon fuels	Overall	●	●		6.3
	Circular Economy	Risk	Recall costs and inventory write-off losses caused by recovery and disposal of pharmaceuticals due to safety and efficacy issues	Pharma		●		5.8
		Risk	Plastic recycling R&D and facility investment costs incurred	Green Chemicals		●		7.0
		Opportunity	Increase in sales resulting from growing demand for eco-friendly products and sustainable packaging in response to strengthened packaging regulations	Green Chemicals		●		6.7
Social	Human Resources	Risk	Inadequate human resource management causes employee turnover and competency decline, leading to costs for new recruitment and training to maintain adequate staffing levels	Overall		●		5.8
		Risk	Legal liability costs such as fines and penalties incurred from violations of the Labor Standards Act in case of incidents	Overall		●		4.2
		Risk	Legal liability costs such as fines and penalties from information security regulation violations due to data protection failures and employee personal information leaks	Overall		●		4.5
		Risk	Increased company operating costs due to decreased work productivity and higher turnover rates caused by excessive working hours	Overall		●		5.1
	Employee Safety and Health	Risk	Legal liability costs such as fines and penalties incurred from violations of the Occupational Safety and Health Act and Serious Accident Punishment Act in case of safety accidents	Overall		●		5.2
Governance	Ethical Management	Risk	Legal liability costs such as fines and penalties incurred from violations of fair competition regulations during unfair trade practices	Overall		●		5.4

1) Upstream: suppliers, logistics, etc., own operation: SK chemicals business sites, downstream: product purchasing customers, distribution, etc.
2) Impact was evaluated on a 10-point scale, and cases scoring 6.2 or higher in the assessment were selected as material risks and opportunities

Double Materiality Assessment

Double Materiality Assessment Results

Double Materiality Assessment Results

SK chemicals designated an ESG topic as material if a specific impact, risk, or opportunity related to that topic was determined to be significant during the materiality assessment.

Material Impacts, Risks and Opportunities → **Material Topic Mapping** → **Material ESG Topics**

: Materiality Assessment Ranking

Environmental and Social Impact

1. R&D contribution to circular economy such as developing recyclable materials
2. Environmental ecosystem impact caused by environmental spill after disposal of plastic
3. Reduction of waste generation due to increased demand for circular recycling products
4. Enhancement of member productivity, job satisfaction, and organizational culture improvement through competency and career development programs
5. Environmental impact caused by greenhouse gas emissions during raw material manufacturing process
6. Contribution to greenhouse gas emission reduction by reducing fossil fuel use through renewable energy use
7. Environmental impact caused by greenhouse gas emissions during product manufacturing process

→ 1 Circular Economy; 2 Human Resources; 3 Climate Change and Energy

Financial Risks & Opportunities

1. Plastic recycling R&D and facility investment costs incurred
2. Increase in sales resulting from growing demand for eco-friendly products and sustainable packaging in response to strengthened packaging regulations
3. Increased CapEx for new facilities related to emissions reduction due to strengthened greenhouse gas emission reduction obligations
4. Decreased sales of petroleum-based products due to strengthened packaging regulations
5. Increased production costs due to transition to renewable energy and low-carbon fuels

→ 1 Circular Economy; 3 Climate Change and Energy

Double Materiality Matrix

1) Topics determined to be of low relevance to the company in Step 1 of the double materiality assessment procedure(Air pollution, biodiversity and ecosystem protection, substances of concern, water resources, waste, supply chain ESG management, community, information security and protection, consumer rights)

Double Materiality Assessment

Stakeholder Feedback on Double Materiality Assessment Results

Summary of Roundtable Discussion

On February 5, 2025, SK chemicals held a stakeholder roundtable to share and discuss the results of the double materiality assessment. The session was attended by team leaders from various departments including business, strategy, research, and support functions that are directly involved in ESG topics subject to materiality assessment. After reviewing the results, participants shared their level of alignment with the findings and engaged in in-depth discussion on topics where internal and external stakeholder assessments differed. Drawing from their work experience, participants exchanged views on impacts, risks, and opportunities, and provided input on areas that require leadership-level attention and strategic support. SK chemicals plans to report these insights to the ESG Committee and actively reflect the recommendations and findings from the roundtable in its management practices, with the aim of refining its ESG strategy and continuously strengthening its capacity to meet stakeholder expectations.

1 Climate Change and Energy

- SK chemicals is actively pursuing greenhouse gas reduction, but emissions across the entire value chain are also recognized as a significant environmental impact factor.
- While there is high interest in managing downstream emissions, emissions from upstream sources such as waste PET supply tend to receive relatively less attention.
- To maximize the reduction effect, it is essential to collaborate with suppliers and customers to reduce emissions throughout the value chain.

- Investors are paying attention not only to greenhouse gas reduction but also to the economic value of the recycling business, which is one of the company's key climate response strategies.
- In response to increasing customer demand for eco-friendly practices, it is necessary to strengthen both the company's climate strategy and its eco-friendly product portfolio.
- A strategy is needed to assess the environmental impact of products through LCA and to clearly communicate product carbon footprints to customers.

2 Circular Economy

- The recycling business is seen as an important opportunity to improve the negative perception of plastic and expand positive environmental and social impacts.
- As a new growth engine for the company, the recycling business also holds financial significance, and SK chemicals is actively investing in R&D and facilities to expand the business.

- In global markets such as Europe, regulations on non-recyclable products are tightening, but some of our company's products are difficult to recycle.
- It is necessary to closely monitor environmental regulatory trends and strengthen the company's response system.

- Internal members recognize the importance of the recycling business and rate its related resource circularity impacts, risks, and opportunities highly.
- To build consensus with customers and stakeholders on the significance of the recycling business, communication and information sharing should be strengthened.

3 Human Resources

- Although the company currently operates various capability development programs and employees benefit from them, it is necessary to explore ways to improve the content and format of existing programs to enhance employee satisfaction and their impact on organizational culture.

- While external stakeholders view capability development as having a significant impact on job satisfaction and organizational culture, it is noteworthy that internal members rated this impact relatively lower.

Double Materiality Assessment

Material Issues

Material Issues Affecting External Stakeholders

SK chemicals identifies the stages and timing within the value chain at which significant impacts on the environment or society may occur(six environmental and one social). To manage these impacts, the company establishes output and impact indicators and monitors performance accordingly.

Area	Topic	Impacts(External Stakeholders Relevance and Materiality)	Types	Scopes of Impact[1]			Time Horizon	External Stakeholders / Impact Assessment Area	Output Indicators	Impact Assessments
				Up-stream	Own Operations	Down-stream				
Environment	Climate Change and Energy	Environmental impact caused by greenhouse gas emissions during raw material manufacturing process	Negative/ Actual	●			Short-term	• Environment	Scope 3 Category 1(Purchased Goods and Services) Emissions	Environmental cost occurrence/ avoidance
		Environmental impact caused by greenhouse gas emissions during product manufacturing process	Negative/ Actual		●		Short-term	• Environment	Company-wide greenhouse gas emission reduction(Scope 1, 2) compared to base year	Environmental cost occurrence/ avoidance
		Contribution to greenhouse gas emission reduction by reducing fossil fuel use through renewable energy usage	Positive/ Actual	●	●	●	Short-term	• Environment • Social • Consumers/end users • Suppliers	Renewable energy usage ratio	Environmental cost occurrence/ avoidance
	Resource Circularity	Reduction of waste generation due to increased demand for circular recycling products	Positive/ Potential		●		Long-term	• Environment • Social • Consumers/end users • Suppliers	Sales volume of products produced from recycled raw materials	Environmental cost occurrence/ avoidance
		Environmental ecosystem impact caused by environmental spill after disposal of plastic	Negative/ Actual			●	Short-term	• Environment • Consumers/end users	Sales volume of recycled and bio-material products	Environmental cost occurrence/ avoidance
		R&D contribution to circular economy such as developing recyclable materials	Positive/ Actual			●	Long-term	• Environment • Social • Consumers/end users • Suppliers	R&D expenses for recyclable materials	Providing access to products with positive impact
Society	Human Resources	Enhancement of member productivity, job satisfaction, and organizational culture improvement through competency and career development programs	Positive/ Actual		●		Short-term	• Social	Member training expenses	Occurrence/ Avoidance of Social Costs

1) Upstream: suppliers, logistics, etc., Own Operation: SK chemicals business sites, Downstream: product purchasing customers, distribution, etc. 2) The monetary effect of impact indicators is based on SK Group's Social Value(SV) measurement methodology.

Impact Indicator Results[2]

❷ Company-wide greenhouse gas emissions(Scope1, 2) reduction compared to base year(2021)

Approximately KRW 3.6 billion

❹ Reduction in plastic waste disposal costs and raw material usage due to expansion of recycled material use

Approximately KRW 1.6 billion

❼ Improvement in members' quality of life through education

Approximately KRW 5.5 billion

Double Materiality Assessment

Material Issues

Material Issues for Corporate Value Creation

SK chemicals identifies the stages and timing within the value chain where material risks and opportunities(five environmental) may affect corporate value creation and business activities. The company establishes business strategies to minimize risks and maximize opportunities and sets goals and indicators to implement these strategies systematically and monitor performance on an ongoing basis.

Area	Topic	Type	Financial Impact	Scope of Impact[1]			Time Horizon	Business Cases	Business Impact	Business Strategy	Progress Status	Targets/Metrics	Target Year	Executive Compensation
				Up-stream	Own Operations	Down-stream								
Environment	Climate Change and Energy	Risk	Increased CapEx for new facilities related to emissions reduction due to strengthened greenhouse gas emission reduction obligations		●		Short-term	Environmental regulation compliance cost increase	Cost	• Developing strategies to promote the reduction of energy consumption and carbon emissions and securing long-term ROI.	Reducing Scope 1 & 2 emissions by implementing energy/ carbon reduction initiatives	Achieving Scope 1 & 2 Net Zero greenhouse gas emissions	Scope 1&2 Net Zero by 2040	Total greenhouse gas emissions
		Risk	Decreased sales of petroleum-based products due to strengthened packaging regulations		●		Mid-term	Petroleum-based product sales expansion	Sales	• Transitioning the business portfolio to focus on recycled and bio-based materials.	Developing markets for recycled and bio-based materials	Increasing the proportion of sales from recycled and bio-based materials	80% by 2030, 90% by 2040	Sales volume of products based on circular recycling/bio-material
		Risk	Increased production costs due to transition to renewable energy and low-carbon fuels		●	●	Short-term	Production cost increase	Cost	• Minimizing the impact of electricity price volatility through solar self-generation and PPA contracts and securing renewable energy sources.	Gradually expanding self-generation and purchase of renewable energy(10MW renewable energy introduction in Ulsan by 2024)	Supplying renewable energy	RE100 by 2032	Adoption of renewable energy
	Circular Economy	Opportunity	Increase in sales resulting from growing demand for eco-friendly products and sustainable packaging in response to strengthened packaging regulations		●		Short-term	Recycle and bio-based product sales increase	Sales	• Expand marketing and investment in production facilities for recycled products and strengthen customer support for market expansion.	Expanding the market for recycled products	Increasing the proportion of sales from recycled and bio-based materials	80% by 2030, 90% by 2040	Sales volume of circular recycling copolyester
		Risk	Plastic recycling R&D and facility investment costs incurred		●		Short-term	Operation cost increase	Cost	• Develop recycling-related technologies and form strategic alliances and investments with equipment companies.	Securing infrastructure for recycling business	Proportion of clean technology R&D investment in the Chemical Research Institute's budget	50% by 2028	Performance in launching recycled products

1) Upstream: suppliers, logistics, etc., Own Operation: SK chemicals business sites, Downstream: product purchasing customers, distribution, etc.

SPECIAL SECTION

29
Climate Change Response

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Circular Economy

CLIMATE CHANGE STRATEGY

Key Achievements in 2024

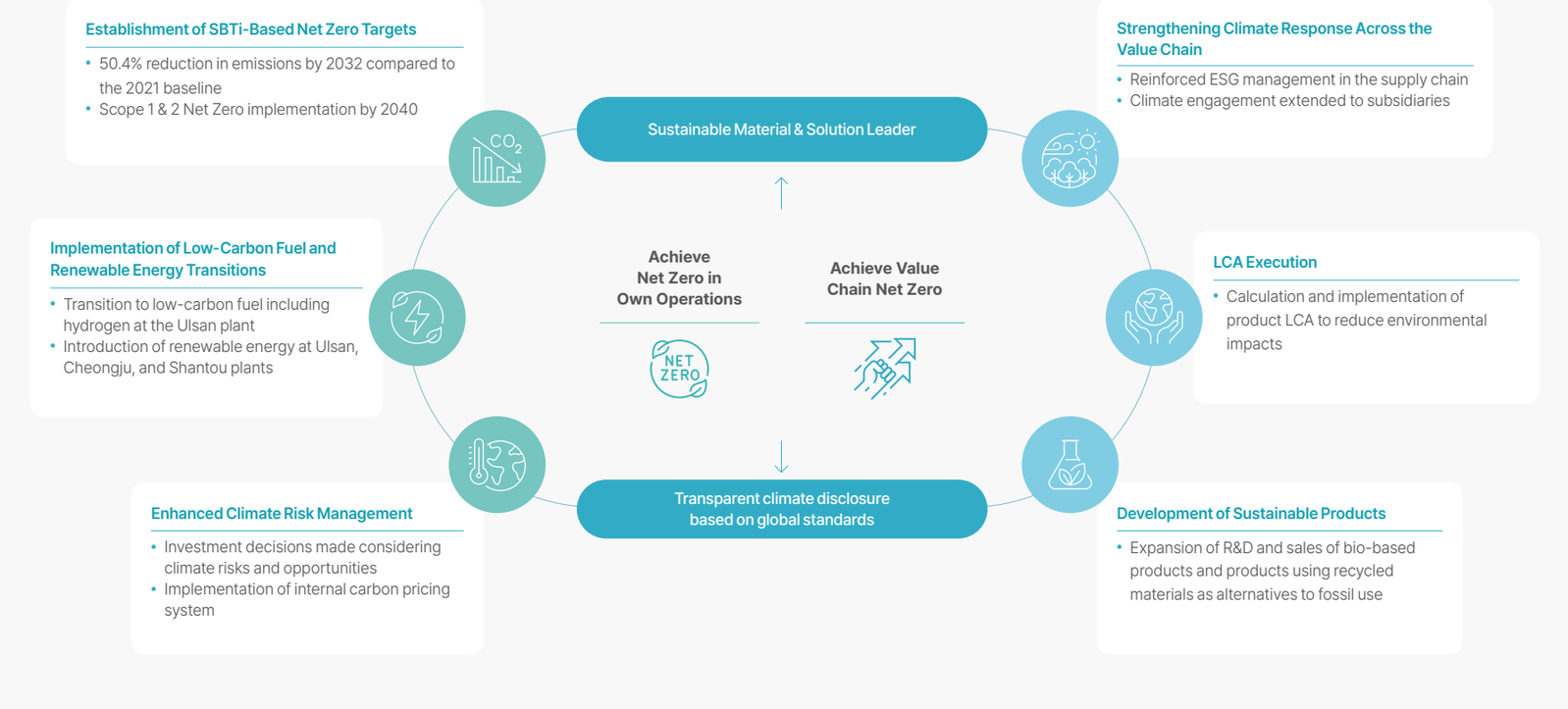
1. Scope 1, 2 GHG emissions reduction in 2024 : 25ktCO_2eq
2. Began procuring 10MW of solar power through a virtual PPA at the Ulsan Plant
3. Completed the Scope 1, 2 inventory, including third-party verification for overseas manufacturing and sales subsidiaries
4. Implemented a various emissions reduction initiatives, including expansion of solar power facilities at the Cheongju Plant and CHDM off-gas recovery systems

Mid- to Long-term Plan

1. Achieve 100% renewable energy use by 2032, reduction of GHG emissions by more than 50% by 2032 compared to the base year 2021.
2. Achieve Scope 1, 2 Net Zero by 2040
3. Achieve Scope 3 Net Zero by 2050

Approach to Climate Change Strategy

Responding to climate change is no longer merely a social or environmental responsibility for companies but a critical issue directly linked to sustainability. Physical risks caused by climate-related events such as extreme weather, along with transition risks such as regulatory tightening and shifting market demands, have a direct impact on financial performance. At the same time, various stakeholders are demanding responsible action and concrete implementation from companies regarding climate change. In response, SK chemicals is proactively participating in climate action by establishing a structured governance system and following the approval of its science-based targets(SBTi) in December 2023, is implementing them through a phased execution. The company aims to achieve Net Zero at its business sites by 2040 and reach full value chain carbon neutrality by 2050 through LCA-based environmental impact assessments, the development of sustainable products, and engagement across the entire value chain, including subsidiaries.



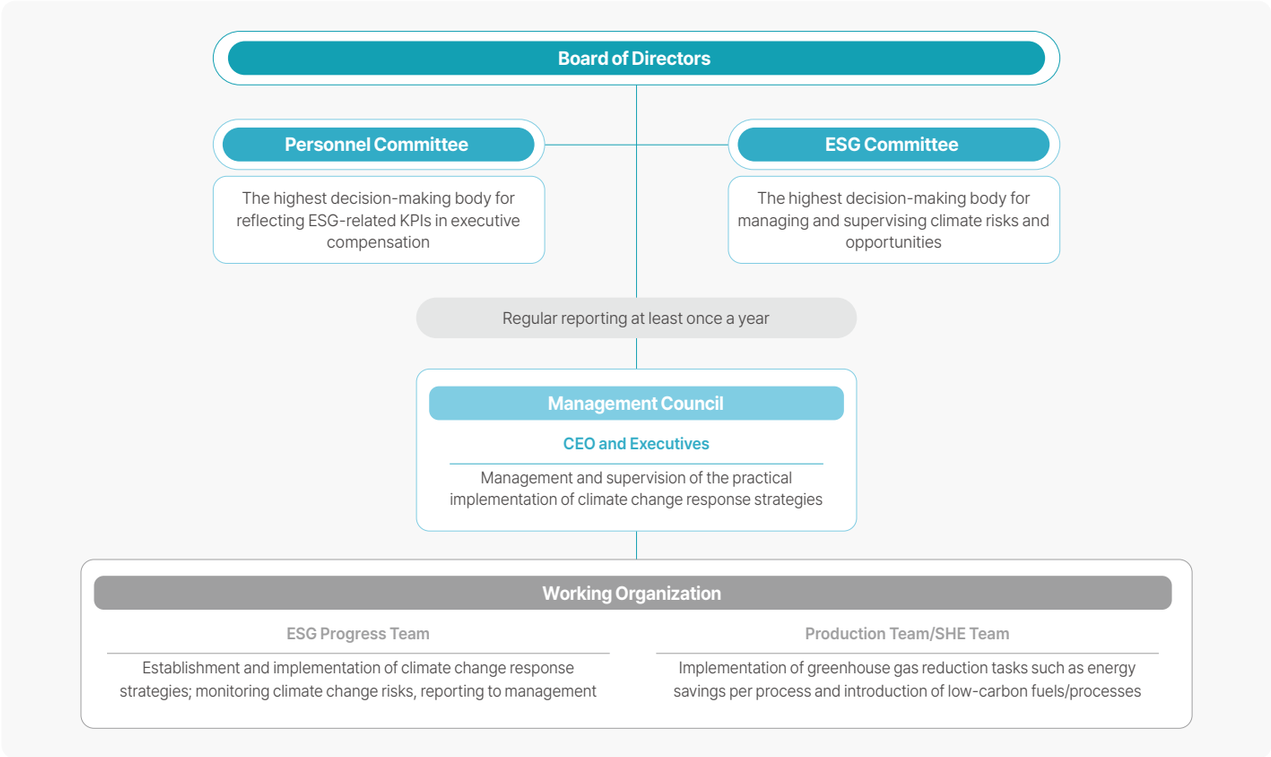
Climate Change Response

SPECIAL SECTION

Climate Change Governance

Climate Change Response Governance Structure

To oversee the company's comprehensive climate response and set its strategic direction, the decision-making Board of Directors has established subcommittees to enhance operational efficiency and expertise in addressing climate-related issues. The executive committee is responsible for the practical implementation of climate response strategies and consists of the CEO, the Head of Management Support Division, the Ulsan Plant Manager, the Cheongju Plant Manager, the Yantai Plant Manager, the Shantou Plant Manager, the Head of Finance, and the Head of SHE. Additionally, the ESG Progress Team is responsible for risk management, by implementing climate change response strategies and managing financial and non-financial enterprise-wide risks that may arise during the implementation of investment and management strategy tasks, including climate risks.



Climate Change Response Policy

SK chemicals discloses its key climate response initiatives and management system through its environmental management policy. The core climate response tasks include reducing greenhouse gas emissions and expanding the use of renewable energy. To manage these tasks systematically, the company assigns responsible departments and establishes environmental targets, monitoring progress toward implementation.

Key Contents of Environmental Management Policy

1. Purpose of climate change management and associated roles and responsibilities
2. Commitment to reducing greenhouse gas emissions and ceasing financial support for anti-climate activities
3. Targets for reducing greenhouse gas emissions and expanding the use of renewable energy
4. Operation of a management system for raw materials, products, and waste, and compliance with climate-related regulations
5. Measures to raise awareness among internal and external stakeholders, including employees and business partners
6. Green procurement policy at the raw and subsidiary material sourcing stage

Environmental Policy

Climate Change Response

SPECIAL SECTION

Board of Directors

Roles and Responsibilities

ESG Committee

- The ESG Committee reviews and approves climate change response targets and strategies as part of its oversight of key ESG matters across overall management. At the end of each year, the committee reviews ESG performance reports to supervise the setting of climate-related targets and the progress made during the reporting period.
- The ESG Committee also regularly receives reports on the identification and assessment of climate risks and opportunities, as well as their impacts on the business model. These insights are reflected in business strategy and financial planning decisions. The ESG Committee's oversight responsibility regarding climate risks and opportunities is stipulated in the Corporate Governance Charter and the ESG Committee regulations

Personnel Committee

- The Personnel Committee reviews the evaluation and compensation appropriateness of internal directors, including the CEO, and key executives, taking into account sustainable management and the achievement of ESG strategies and targets. The processes for performance evaluation and compensation deliberation and resolution follow the Personnel Committee regulations.

Strengthening Expertise and Capability Development

Date	Training	Content	Number of Participants
2024. 11.26	"In the era of climate crisis, Challenges and Opportunities for enterprises"	Trends in environmental regulations and expected financial impacts on Chemicals	7 participants[1)]

1) All internal and external directors attended: Kim Cheol, Ahn Jae-hyun, Moon Sung-hwan, Cho Hong-hee, Kim Sunmee Choi, Park Jeong-su, Jeon Kwang-hyun

Climate Change 2024 Board Agenda

Committee Name	Date Held	Agenda	Approval Status
ESG Committee	2024.04.09	Analysis of ESG evaluation results and derivation of improvement tasks	Report
		Report on 2023 Materiality Assessment results	Report
	2024.12.18	2024 ESG performance and 2025 plan	Report
Personnel Committee	2024.02.21	Review of 2024 CEO KPI	Deliberation
	2024.07.23	Review of 2024 CEO mid-year KPI review	Deliberation
	2024.12.04	Review of 2024 CEO evaluation	Deliberation
		Report on 2024 Key executive evaluations	Report

Executive Committees

Roles and Responsibilities

- The CEO oversees the implementation of environmental management strategies, including climate-related initiatives, and supervises all corporate activities related to climate action. The CEO sets climate-related targets and regularly reviews whether business structures, policies, and procedures effectively support the achievement of those targets. This includes monitoring climate risks and opportunities. The CEO also establishes a dedicated working-level organization for climate change response, appoints qualified personnel, and ensures appropriate responsibilities and authority are assigned to those in charge of implementation.
- The executive committee reviews and approves company-wide climate change strategies and greenhouse gas reduction tasks, leads investment and exploration in Eco Transition businesses, and facilitates collaboration across relevant departments.

Strengthening Expertise and Capability Development

Training Date	Training Content	Participants
2024.02.16	Understanding the necessity and guidelines for mandatory KSSB disclosure	Head of Management Support Division
2024.05.07	ESG regulatory trends and responses	All executives, Team leaders, PLs
2024.05.20	Understanding greenhouse gases, Net Zero strategy, Global carbon regulations	CEO and Key Executives

Linking Climate Performance to Compensation

To effectively manage and improve climate-related performance, SK chemicals has designated "Net Zero" as a key KPI for the CEO and executives responsible for production. The CEO's KPIs include company-wide GHG emissions as a core evaluation metric, and the results of KPI evaluations are linked to the compensation system and reflected in the determination of executive remuneration. Additionally, for the Head of Production Infrastructure at the Ulsan plant, one of the company's key sites, GHG emissions are also included as an evaluation metric. KPI results are evaluated at year-end and rated using an internal grading scale from S (highest) to C (lowest). These ratings are linked to the compensation system and reflected in individual remuneration. ESG-related KPIs for the executive committee include GHG emissions and environmental efficiency indicators, which are also reflected in team-level KPIs and connected to performance-based rewards.

Target	Key Performance Evaluation Tasks	Compensation Ratio
CEO	Net Zero goal achievement	Max 10%
Head of Production Infrastructure Division	Net Zero goal achievement	5%
Head of Engineering Group	Renewable energy introduction	5%
Head of Business Development Division/Head of SK Shantou Production	Shantou greenhouse gas Scope 1, 2 inventory establishment	5%
Head of Recycle Process Research Lab	Recycle technology development	10%
Head of Recycle Business Group	New acquisition of recycle raw materials	10%
Head of Application Development Group	Recycle product LCA calculation	10%

Working-Level Organization

Roles and Responsibilities

- The working-level organization is centered on the ESG Progress team and operates in collaboration with relevant departments, including production and SHE teams, to carry out detailed tasks.
- ESG Progress team establishes the company-wide Net Zero target and strategy for climate change response and either leads or supports the implementation and monitoring of related tasks by the relevant departments. It is also responsible for measuring greenhouse gas emissions from each business site, responding to relevant regulations, and managing the company's engagement with global initiatives such as CDP, TCFD, and SBTi.
- As the organization in charge of risk management, the ESG Progress team oversees both financial and non-financial risks that may arise during the execution of climate-related investments and business strategy tasks. It discusses and reviews key issues with implementing departments and reports regularly—at least once a year—to the executive committee and the ESG Committee.

Climate Change Response

SPECIAL SECTION

Decision-Making Process Reflecting Climate Risks and Opportunities

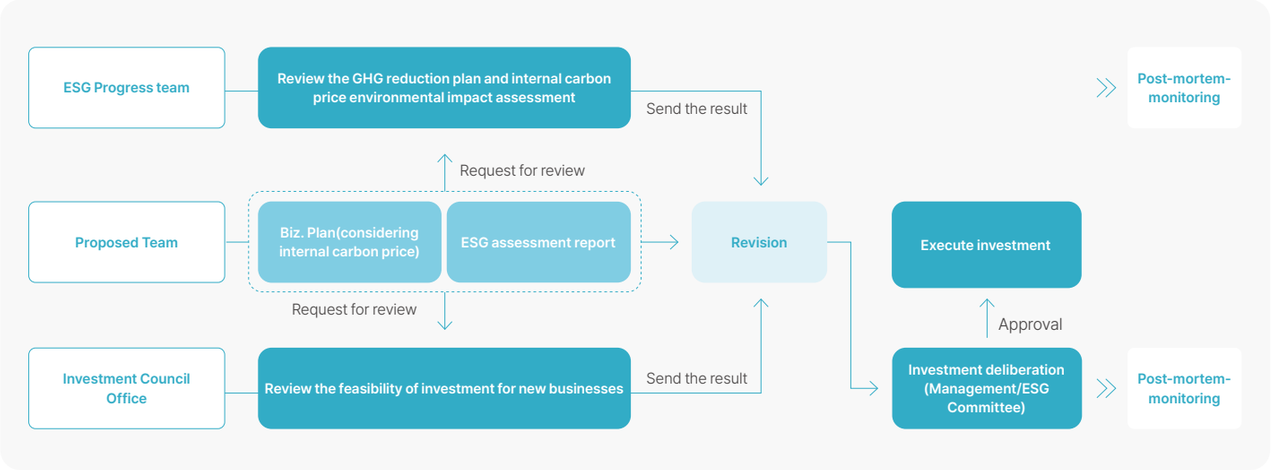
Framework for New Investment Proposals

To proactively address environmental and social issues related to climate change, SK chemicals rigorously reviews ESG factors during the investment decision-making process. Since 2023, the company has implemented internal investment review procedures that require evaluation of ESG Review Reports, with a particular focus on potential risks related to climate change. This ensures that during the review phase, environmental and social impacts are minimized, and that after investment approval, mitigation measures are monitored to support sustainable management. In fact, for all investment proposals reviewed in 2024, compliance with relevant criteria was confirmed. The company continues to monitor whether environmental mitigation measures outlined in ESG assessment reports are being properly implemented. Through this structured, ESG-centered approach to investment screening and decision-making, SK chemicals seeks to promote sustainable development aligned with its climate response goals.

Investment Decision-Making Process

SK chemicals reaches final investment decisions through a structured proposal and review process. At the proposal stage, the initiating business unit submits a business plan along with an ESG assessment report. These documents are reviewed by both the ESG Progress team and Investment Council Office Secretariat. If no revisions are required, they are submitted to the Investment Council Office, which evaluates both the financial and non-financial feasibility of the investment. For investments exceeding KRW 2 billion, the ESG Committee separately assesses ESG-related risks, and the proposal is subject to final approval by the Board of Directors. Even after approval, the ESG Committee continues to monitor the implementation of risk mitigation measures to ensure potential environmental and social impacts are minimized.

Investment Decision-Making Process



Climate Change Response

SPECIAL SECTION

Decision-Making Process Reflecting Climate Risks and Opportunities

Considerations in Investment Decision-Making

Internal Carbon Pricing

SK chemicals has institutionalized the reflection of carbon-related costs in business planning and investment decision-making processes to manage potential carbon cost risks in advance and ensure that future carbon costs are taken into account in executive investment decisions. At the proposal stage, the initiating business unit estimates the expected Scope 1 and 2 emissions resulting from the investment and applies projected annual carbon prices to calculate investment returns. These economic analysis results are included in the business plan. The Investment Review Committee and the ESG Committee evaluate the investment proposal by reviewing the economic feasibility based on the carbon pricing analysis. As a result, the potential vulnerability of high-emission investments is actively reviewed, and the transition toward a low-carbon business portfolio is expected to accelerate.

ESG Review Report

In its investment decision-making process, SK chemicals uses the ESG Review Report to assess potential climate-related risks associated with investments. During the proposal stage, the ESG Progress team reviews whether the proposed activity meets the criteria of the Korean Green Taxonomy(K-Taxonomy), including activity, eligibility, exclusion, and safeguard criteria. It also examines whether the proposal falls under projects excluded by Financial Society screening standards. Based on this review, the ESG Review Report is prepared. The Investment Review Committee then evaluates the overall feasibility of the investment, considering both financial and non-financial aspects, including environmental, social, and governance risks, to determine whether to approve the proposal.

Details of Internal Carbon Pricing

Type of Application
- Applied as a Shadow Price to reflect investment costs in strategic decision-making(e.g., expansion investments, equity investments)

Scope of Application
- Applies expected Scope 1 & 2 emissions(Scope 3 information provided only if necessary)

Utilization
- Applied to strategic and investment decisions such as CapEX
  - Preparedness for future carbon price increases/volatility
  - Used for prioritization to expand low-carbon portfolio
  - Internal carbon price system not applied for safety-related mandatory investments and minor equity investments

Applied Carbon Price
- NGFS GCAM 1.5°C Scenario

Category		2025	2030	2040
Carbon Price	USD	69.7	104.0	183.0

2024 Investment Proposals and Review Results

Proposal Name	Review Date	ESG Review Report Considerations	Review Result
CP-2 ECOZEN Installation of Dedicated Equipment	2024. 06. 24	• Corresponds to green taxonomy: Industry - Establishment and operation of greenhouse gas reduction facilities; Circular economy - Recycling / Upcycling of waste resources; • Verified greenhouse gas reduction effect; • Reviewed exclusion criteria such as water conservation/pollution prevention permits.	• Approved by Investment Review Committee Reported during management council decision-making process (Not subject to ESG Committee submission criteria and review)
Depolymerization Pilot Infrastructure Investment	2024. 10. 22	• Corresponds to green taxonomy: Circular economy - Recycling / Upcycling of waste resources - Estimation of greenhouse gas emissions and establishment of reduction strategies • Reviewed exclusion criteria such as water conservation/pollution prevention permits.	• Approved by Investment Review Committee Reported during management council decision-making process (Not subject to ESG Committee submission criteria and review)

Climate Change Response

SPECIAL SECTION

Climate Materiality Assessment

Identification of Climate Risks and Opportunities

Climate Risk and Opportunity Management Process

SK chemicals categorizes climate management areas in accordance with the TCFD(Task Force on Climate-related Financial Disclosure) framework. Risks are classified into physical risks(acute and chronic) and transition risks arising from the move toward a low-carbon society(policy and regulatory, technological, market, and reputational). Opportunities are categorized into five areas: resource efficiency, energy source, product and services, and market. Based on this framework, SK chemicals constructed a pool of climate-related risks and opportunities by taking into account its business types and value chain, including subsidiaries. As a result, in 2024, the company identified a pool comprising 8 physical risks, 13 transition risks, and 5 opportunity factors, totaling 26 climate risks and opportunities.

: Material risks and opportunities

Category		NO.[1]	Risks and Opportunities	Business Model[2]			Scopes of Impact			Impact of Risks and Opportunities on Business
				Chemicals	Bio/ Pharma-ceuticals	Power Generation	Up-stream	Own Operations	Down-stream	
Transition risks	Policy and legal	T1	Carbon tax, carbon border adjustment mechanism	●			●	●	●	Increased costs due to carbon tax and Carbon Border Adjustment Mechanism
	Policy and legal	T2	Strengthening of emissions trading system	●	●	●		●		Burden of purchasing emissions allowances due to exceeding allocation limits
	Policy and legal	T3	Strengthening of greenhouse gas emissions reporting obligations	●	●	●		●		Increased costs for greenhouse gas management(human capital, systems, etc.)
	Policy and legal	T4	Strengthening of environmental regulations	●				●	●	Decline in product competitiveness due to strengthened plastic regulations, and fines or penalties for non-compliance with laws
	Policy and legal	T5	Exposure to litigation risk(greenwashing)	●		●		●	●	Costs incurred from legal proceedings and damages if losing lawsuits
	Technology	T6	Failure of new technology investment	●	●	●	●	●		Loss of competitiveness if failing to develop low-carbon products and services
	Technology	T7	Increased need for low-carbon technology investments	●		●	●	●	●	Expenditures related to the development of new technologies and facilities, and the transition to low-carbon energy
	Market	T8	Decreased demand for products petroleum based products	●		●		●	●	Weakening business stability due to lack of demand for low-carbon products and services
	Market	T9	Market uncertainty	●		●		●	●	Weakened business resilience due to lack of demand for low-carbon products and services
	Market	T10	Increase in raw material costs	●	●	●	●	●		Sharp rise in raw material prices due to procurement of low-carbon raw materials
	Market	T11	Increase in electricity rates	●	●	●	●	●		Increase in operating costs due to rise in electricity rates following the national energy master plan restructuring
	Reputation	T12	Prejudice against business sector	●				●	●	Decrease in sales and investments, stock price decline due to perception that the chemical industry negatively impacts climate
	Reputation	T13	Increase in concerns/negative views from stakeholders	●	●	●		●	●	Increase in negative views from stakeholders due to lack of credibility in climate goals and activities
Physical risks	Acute	P1	Flooding	●	●	●		●		Increased recovery costs due to asset damage and operational disruptions caused by flooding
	Acute	P2	Fluvial flooding	●				●		Flood-related expenses for site restoration and cleanup
	Acute	P3	Pluvial flooding	●	●	●		●		Flood-induced supply chain disruptions leading to higher transportation costs and additional restoration and cleanup expenses in surrounding areas
	Acute	P4	Typhoon	●	●	●		●		Increased recovery and operational costs due to equipment damage and production disruptions caused by strong winds and heavy rainfall
	Acute	P5	Wildfire	●	●			●		Increased recovery costs due to damage to facilities and equipment, production stoppages, and supply chain disruptions
	Acute	P6	Drought	●	●	●		●		Operational disruptions and increased costs due to water shortages affecting production processes
	Chronic	P7	Temperature extreme	●	●	●	●	●	●	Increased operating costs, including cooling and air conditioning expenses, due to abnormal temperature fluctuations at the facility
	Chronic	P8	Water resource pollution	●				●		Increased operational costs for treating and reusing contaminated water
Opportunities	Resource efficiency	O1	Use of highly efficient production and logistics systems	●	●	●		●		Reduction of energy consumption and greenhouse gas emissions through process optimization
	Energy Source	O2	Use of low-carbon energy	●	●	●	●	●		Expansion of capital procurement capacity through utilization of country-specific renewable energy policy support incentives(such as tax reductions)
	Energy Source	O3	Renewable energy policy incentives			●		●		Enhanced capital raising capacity through utilization of country-specific renewable energy policy incentives including tax exemptions)
	Product/Service	O4	Increase in customer demand for alternatives to petroleum-based products	●		●		●	●	Sales increase due to growing customer demand for recycled, bio-based products
	Market	O5	Increased accessibility to next markets	●		●		●		Expansion into new markets arising from climate change, such as recycled and bio-based materials

1) T: transition risk, P: physical risk, O: opportunity 2) Chemicals: SK chemicals' Green Chemicals division, Bio & Pharmaceuticals: SK chemicals' Life Science division and SK bioscience, Power Generation: SK multi utility

Climate Change Response

SPECIAL SECTION

Climate Materiality Assessment

Assessment of Climate Risks and Opportunities

SK chemicals conducted an assessment of scale(the magnitude of financial impact from risks and opportunities) and likelihood(the estimated time of occurrence) by considering business strategy, market trends, and competitiveness. Based on this assessment, the company has established response measures and strategies aligned with its Eco Transition business model, growth strategy, and stakeholder expectations. For the key risks and opportunities identified through the climate materiality assessment, SK chemicals analyzed their financial impact during the current year as well as anticipated impacts over the short, medium, and long term. By disclosing detailed response strategies for these key risks and opportunities, the company aims to enhance transparency in its sustainability management and build stakeholder trust. Moving forward, SK chemicals will establish and manage key performance indicators(KPIs) to monitor climate action performance systematically, thereby minimizing risks from the low-carbon transition and proactively identifying new business opportunities.

	NO.	Key Risks and Opportunities	Rationale for Key Risks and Opportunities
Technology	T7	Increased need for low-carbon technology investments	As demand for low-carbon technology increases, significant investment in facilities for low-carbon processes and energy transitions is required. This may have substantial financial impacts. In fact, some processes have already begun transitioning to low-carbon energy sources such as hydrogen, and related costs are being incurred.
Market	T8	Decreased demand for petroleum based products	Given the scale of revenue from virgin petroleum-based products, even a partial decline in demand may result in significant financial impact. Especially with regulations such as mandatory plastic recycling expected by 2030, sales of petroleum-based virgin plastics are expected to decrease over the next five years.
Market	T11	Increase in electricity rates	Increases in industrial electricity rates, considering the company's existing expenditures, could have material financial consequences. Korea Electric Power Corporation announced that, starting October 24, 2024, industrial power usage rates will increase by an average of 9.7%. As this is already confirmed, the scale and likelihood of financial impact from electricity cost increases are both high, making it a key climate risk.
Chronic	P7	Temperature extreme	Using the S&P Global Climanomics physical risk analysis tool, the company assessed the scale and likelihood of risks from abnormal weather.
Energy Source	O2	Use of low-carbon energy	The use of low-carbon energy can reduce fossil fuel purchase costs and GHG emissions, which lowers emissions-related costs(operating expenses). This presents a meaningful opportunity. SK chemicals has already generated non-operating income from surplus emission credit sales driven by its low-carbon energy transition, and this benefit is expected to expand due to growing climate policy demands such as NDC targets.
Product/ Service	O4	Increase in customer demand for alternatives to petroleum-based products	As customer demand for alternatives to petroleum-based products continues to rise, SK chemicals is already generating revenue from commercialized products based on recycled and bio-based feedstock. With expanding global regulations such as mandatory plastic recycling, the scale and likelihood of this demand growth make it a significant climate-related opportunity.

Climate Change Response

SPECIAL SECTION

Analysis of Financial Impacts from Key Climate Risks and Opportunities

The financial impact analysis of climate-related risks and opportunities has been conducted based on currently available data and methodologies, within a reasonably estimable scope. However, the results inherently involve uncertainties due to the long-term nature of climate change, evolving policy and regulatory landscapes, trends in the global energy market, the pace of low-carbon technology development, and shifts in consumer behavior. These factors also present limitations related to data variability. Accordingly, the analysis results are intended for reference purposes only, and SK chemicals does not assume responsibility for any costs, losses, or damages arising from changes in the underlying information. Going forward, SK chemicals will continue to reduce uncertainties in its estimates by improving data accuracy and refining analytical methodologies.

NO.	Category	Key Financial Impact Pathway	Business	Account	Financial Impact[1]	
T7	Increased need for low-carbon technology investments	Increased cost of sales due to introduction of low-carbon fuels	SK chemicals	Cost of Sales	• Current financial impact: KRW 5.6 bil. • Average annual expected financial impact[2] (Unit: KRW bil.) Short-term 6 Mid-term 13 Long-term 24	SK chemicals has a plan to transition from high-carbon-emission fuels such as coal and propane to lower-emission alternatives like hydrogen. As part of this transition, we have identified a potential increase in cost of goods sold (COGS) due to higher fuel procurement volumes. This analysis reflects our projected use of low-carbon fuels based on the company's Net Zero roadmap and is considered part of our mid- to long-term emission reduction strategy.However, uncertainties remain due to external factors such as the actual timeline and availability of hydrogen infrastructure, which may affect fuel procurement costs and serve as a source of variability in the estimates.
			SK multi utility	Cost of Sales	• Average annual expected financial impact (Unit: KRW bil.) Long-term 140	The gas turbine of the SK multi utility combined heat and power(CHP) plant has been designed to enable co-firing of LNG and hydrogen. However, considering the timeline for hydrogen infrastructure development in the Ulsan region, actual hydrogen co-firing is targeted for 2035. Accordingly, the associated financial impact has been identified as a long-term projection.
		Increased depreciation resulting from the transition to low-carbon production processes	SK chemicals	Depreciation Expense	• Current financial impact: KRW 0.3 bil. • Average annual expected financial impact[2] (Unit: KRW bil.) Short-term 0.3 Mid-term 0.6	SK chemicals identified the financial impact for the current fiscal year resulting from capital investments such as the replacement of DMT boiler burners for hydrogen co-firing and piping work to utilize CHDM off-gas as process fuel. Based on this, future investment amounts were estimated in line with the company's Net Zero Roadmap. However, certain long-term investments, such as full hydrogen combustion, involve a high degree of uncertainty at this stage and were therefore excluded from quantitative disclosures.
			SK multi utility	Depreciation Expense	• Average annual expected financial impact (Unit: KRW bil.) Short-term 25 Mid-term 25	SK Multi utility has made a large-scale capital investment to transition to combined heat and power(CHP) generation by 2025. As of the first half of the year, the facility is in the commissioning phase, with full-scale commercial operation targeted for the second half. Based on this, we have analyzed the expected financial impacts in the mid- to long-term.
T8	Decreased demand for petroleum-based products	Decreased sales due to reduced demand for petroleum-based products	SK chemicals	Sales	• Average annual expected financial impact : Quantitative information not disclosed	SK chemicals has identified declining demand for petroleum-based products as one of the transition risks related to climate change, recognizing its potential impact on revenue. However, the decrease in sales of petroleum-based products may result from a combination of various factors, such as economic downturns and intensified market competition, making it difficult to accurately quantify the impact attributable solely to climate-related risks.
T11	Increase in electricity rates	Increased operating costs from renewable energy procurement	SK chemicals	Operating Expense	• Current financial impact: KRW 0.4 bil. • Average annual expected financial impact : Quantitative information not disclosed	SK chemicals is continuing its efforts to procure renewable energy through initiatives such as on-site solar power generation at the Cheongju plant and a 10MW solar VPPA at the Ulsan plant. To achieve its RE100 target by 2032, the company plans to gradually expand renewable energy procurement through additional PPA agreements and the purchase of Renewable Energy Certificates (RECs). However, due to significant uncertainties such as future market price fluctuations and changes in policy environments, quantitative disclosure of the projected financial impact has been excluded.
			SK Bioscience	Operating Expense	• Average annual expected financial impact (Unit: KRW bil.) Mid-term 2	SK bioscience signed a PPA(Power Purchase Agreement) in 2024 to procure renewable energy from 2027 to 2046. Based on the terms of the agreement, the company analyzed the expected financial impact in the mid-term.

1) Current period : 2024, short-term : 2025, mid-term: 2026~2029, long-term: 2030~2050
2) The costs associated with low-carbon processes and fuel transition in China were excluded from the scope of financial impact analysis due to significant variability related to the timing of infrastructure development and fuel market prices, as well as the high level of uncertainty in estimation.

Climate Change Response

SPECIAL SECTION

NO.	Category	Key Financial Impact Pathway	Business	Account	Financial Impact[1]	
P7	Temperature extreme	Increase in tangible assets due to the installation of cooling systems, air conditioning facilities, and energy storage systems	SK chemicals	Operating Expense	• Average annual expected financial impact : Quantitative information not disclosed	The chronic rise in temperatures is leading to financial impacts from the implementation of cooling equipment, air conditioning systems, and energy storage systems. However, it is challenging to clearly distinguish between investments resulting directly from abnormal temperatures and those made for general facility improvements. Therefore, it is difficult to separately identify the portion of the total investment that specifically addresses climate change adaptation. Additionally, due to the low quantitative significance of these investment amounts, we have excluded quantitative disclosures.
O2	Use of low-carbon energy	Reduction in carbon credit expenses (operating costs) due to the implementation of the Net Zero achievement strategy	SK chemicals	Operating Expense	• Current financial impact: KRW 0.2 bil. • Average annual expected financial impact (Unit: KRW bil.) Short-term 0.6 Mid-term 3 Long-term 22	SK chemicals and SK Multi utility are subject to the domestic emissions trading system, and must incur operating expenses for purchasing additional allowances if there is a shortfall based on their annual greenhouse gas emissions. During the third compliance period(2021-2025), the proportion of free allocations for the industrial and conversion sectors has been relatively high, enabling us to maintain a surplus of allowances through existing reduction activities. However, with the expected strengthening of policies to meet the national greenhouse gas reduction targets(NDC), it is anticipated that the proportion of allowances requiring purchase will gradually increase, leading to an additional burden for allowance acquisition. The company is actively reducing greenhouse gas emissions by expanding the use of low-carbon energy sources. Taking into account the trend of increasing paid allocations and domestic carbon credit prices, we have analyzed the financial impact of potential cost savings from purchasing fewer allowances.
			SK multi utility	Operating Expense	• Average annual expected financial impact (Unit: KRW bil.) Long-term 41	
		Reduction in purchase costs for traditional fossil fuels (cost of goods sold) due to the transition to low-carbon processes	SK chemicals	Cost of Sales	• Current financial impact: KRW 4.7 bil. • Average annual expected financial impact (Unit: KRW bil.) Short-term 4 Mid-term 9 Long-term 31	With the transition from traditional fossil fuels to hydrogen fuel, we have identified a cost of goods sold reduction resulting from decreased purchases of fuels such as coal, propane, and LNG, corresponding to the replaced energy amounts. As greenhouse gas emission regulations become more stringent, the procurement costs for traditional fossil fuels are expected to continue rising. Consequently, we have identified the anticipated financial impact of increasingly reduced fossil fuel purchase costs.
			SK multi utility	Cost of Sales	• Average annual expected financial impact (Unit: KRW bil.) Long-term 190	
O4	Increase in customer demand for alternative petroleum-based products	Increase in gross profit of recycled and bio-based material products (circular recycling, ECOTRION product line)	SK chemicals	Gross Profit	• Current financial impact: KRW -5.1 bil. • Average annual expected financial impact (Unit: KRW bil.) Short-term 12 Mid-term 110	In response to the commitment fulfillment of global corporations and strengthened environmental regulations, the demand for recycled and bio-based plastics is expected to continue increasing. SK chemicals has developed a business plan for these related products through 2030 and has completed the establishment of mass production systems to meet the growing customer demand. We have identified the anticipated financial impact based on this business plan. However, there are uncertainties in the financial outcomes due to potential changes in stakeholder demands related to regulations, fluctuations in the prices of key raw materials, and other factors.
		Increase in research and development expenses related to recycling and bio-based products	SK chemicals	R&D Expense	• Current financial impact: KRW 12 bil. • Average annual expected financial impact : Quantitative information not disclosed	SK chemicals is continuously investing in research and development for purposes such as enhancing quality, developing manufacturing technologies like continuous processing, optimizing production, and expanding recycling capabilities. However, estimating the anticipated financial impact of these R&D expenses requires multiple assumptions, so we have disclosed the financial impact for the current period.

1) Current period : 2024, short-term : 2025, mid-term: 2026~2029, long-term: 2030~2050

Climate Change Response

SPECIAL SECTION

Risk and Opportunity Response Strategy

To respond proactively to the global climate crisis, SK chemicals closely analyzes climate-related risks and opportunities and manages them strategically. For the major risks and opportunities identified, the company has designated them as core management priorities, considering their strategic importance and business impact. Other risks are continuously monitored and addressed based on internal prioritization. Through this management framework, SK chemicals aims to transform climate challenges into opportunities for new value creation and provide innovative solutions that contribute to carbon neutrality and climate resilience.

: Key Risks and Opportunities

Category	Risk and Opportunity		Management Approach		Detail Page	Shortcut Link
Policy and legal	T3	Strengthening greenhouse gas emissions reporting obligation	SK chemicals has not identified the enhanced reporting obligations for greenhouse gas emissions as a material risk at present. However, in anticipation of future regulatory tightening, the company is internally managing this issue through proactive measures such as the development of the ESG Data Hub.	• Development and implementation of ESG data hub	45	Click
Technology	T7	Increased need for low-carbon technology investments	In response to the growing need for investment in low-carbon technologies, SK chemicals is taking a multifaceted approach. Specifically, the company is improving production efficiency through off-gas utilization and DMT process optimization, while actively transitioning to low-carbon fuels such as hydrogen. These investments in low-carbon technology infrastructure are becoming a core strategic approach for sustainable growth.	• Production process efficiency improvement and eco-friendly fuel conversion • Expansion of renewable energy deployment	39-40	Click
Market	T8	Decreased demand for petroleum-based products	To address the risk of declining demand for petroleum-based products, SK chemicals is prioritizing the development of sustainable alternatives. The company is expanding research into recycled and bio-based materials and conducting Life Cycle Assessments(LCA) across all product categories to reduce carbon footprints. Furthermore, by increasing the use of renewable raw materials, SK chemicals is strengthening the competitiveness of its product portfolio and converting risks into business opportunities.	• Sustainable product development • Expansion of use renewable raw materials use[1)]	43-44 58	Click Click
Market	T11	Increase in electricity rates	SK chemicals is proactively responding to the risk of rising electricity prices driven by revisions to the national energy master plan by employing a diverse set of renewable energy procurement strategies. These include virtual power purchase agreements(v.PPA), procurement of renewable energy certificates(RECs), direct power purchase agreements(PPAs), and on-site solar power generation through panel installations. Through these approaches, the company is effectively managing energy cost volatility.	• Expansion of renewable energy deployment	40	Click
Reputation	T13	Increase in concerns/negative views from stakeholders	Taking into account the potential impact on corporate reputation and investor confidence, SK chemicals is managing its climate-related disclosures internally by participating in CDP and enhancing information transparency.	• Participation in global initiatives	45	Click
Resource efficiency	O1	Use of highly efficient production and logistics systems	SK chemicals recognizes that improvements in production and logistics system efficiency are key to achieving its 2040 Net Zero target and reducing energy costs. Accordingly, the company operates a structured process to identify and implement energy reduction initiatives, which are linked to executive KPIs to ensure ongoing improvement.	• Energy efficient use	45	Click
Energy source	O2	Use of low-carbon energy	By advancing an integrated strategy that includes low-carbon equipment and renewable energy procurement, SK chemicals aims to transform potential risks into business opportunities. This strategic approach forms a sustainable management framework that delivers both environmental and economic value.	• Promotion of carbon utilization reduction projects	40	Click
Product/Service	O4	Increasing customer demand for alternatives to petroleum-based products	In response to growing customer demand for alternatives to petroleum-based products, SK chemicals is strengthening the development of sustainable products based on bio-based and recycled materials. The company is also capturing market expansion opportunities driven by tightening global regulations and voluntary environmental commitments by corporations. To this end, SK chemicals is actively engaging in promotional efforts, including participation in domestic and international exhibitions and hosting technical seminars.	• Sustainable product development • Expansion of circular economy business market[1)]	43-44 58	Click Click
Chronic	P7	Temperature extreme	To address the risks associated with abnormal weather conditions, SK chemicals has established a comprehensive strategy. Key initiatives include improving the efficiency of facilities and equipment, enhancing energy management systems, and operating programs focused on employee health and safety. Through this multifaceted approach, the company seeks to minimize operational disruptions caused by extreme weather, ensuring production stability and supporting long-term sustainable growth.	• Physical risk response strategy	48	Click

1) The strategy is described in more detail in <Special Section 2. Circular Economy>

Climate Change Response

SPECIAL SECTION

Response Strategy for Key Transition Risks and Opportunities

Process Efficiency and Transition to Eco-Friendly Fuels

In light of the global climate crisis and the growing momentum behind carbon neutrality policies, the chemical industry faces the significant challenge of transitioning to low-carbon production systems. As greenhouse gas reduction becomes a shared global priority, major companies worldwide are expanding investments in infrastructure and technologies aimed at cutting carbon emissions. SK chemicals views these changes in the business environment as both a risk and an opportunity. The company is responding actively to the increasing market demand for low-carbon technologies by investing in process optimization, fuel conversion, and green mobility solutions. Through these efforts, SK chemicals is enhancing its market competitiveness while building a foundation for sustainable future growth.

Utilization of CHDM Off-Gas

T7 | Carbon Reduction Task 2

In 2022, SK chemicals identified that off-gas generated during the CHDM reaction process contains a high concentration of hydrogen. The company subsequently upgraded its facilities to reuse this gas by injecting it into boilers as a fuel source. As of 2024, off-gas reuse replaced 493,000 Nm^3 of LNG and 106,000 kg of propane annually, leading to a reduction of approximately 1,040 tCO_2eq in greenhouse gas emissions.

DMT Process Improvement

T7 | Carbon Reduction Task 1

In the DMT reaction process, the PX oxidation process was a major source of GHG emissions. This process was fully converted to QTA, a cleaner method, resulting in an annual reduction of approximately 11,000 tons of GHG emissions. The transition to 100% QTA was completed in October 2022 following stabilization, after reaching 70% in 2021.

Eco-Friendly Company Vehicles

T7 | Carbon Reduction Task 4

Since 2022, SK chemicals has participated in the government's eco-friendly vehicle procurement program, aiming for over 22% of newly purchased or leased vehicles to be hybrids, electric vehicles, or hydrogen vehicles. The company is expanding its use of eco-friendly vehicles to reduce Scope 1 emissions from mobile sources. EV charging stations installed on company premises are also accessible to employees and customers. SK chemicals has set a target of achieving 100% eco-friendly vehicles by 2030 and continues to pursue low-carbon mobility options.

Fuel Conversion in Ulsan Plant Production Processes

T7 | Carbon Reduction Task 2

The Ulsan plant is actively pursuing GHG reduction through fuel conversion in production processes. The long-term goal is to fully replace fossil fuels such as propane and LNG with hydrogen. In 2023, hydrogen co-firing began in the DMT process boiler. In 2024, this initiative replaced 1.877 million Nm^3 of LNG and 2.355 million kg of propane. In 2024, the emission reduction achieved through the hydrogen fuel conversion project—verified using the CDM methodology(AMS-III.AH) for internal reduction—amounted to 9,122 tCO_2eq.

CHP Electricity Generation and Use

T7 | Carbon Reduction Task 2

SK multi utility, a subsidiary of SK chemicals, is carrying out a project to convert coal and heavy oil boilers into combined heat and power(CHP) systems based on LNG and hydrogen. This initiative responds to national carbon neutrality policies and rising customer expectations for climate action. The LNG-based CHP plant is scheduled for completion in 2025 and is expected to reduce air pollutants such as SOx and NOx, as well as greenhouse gas emissions, thereby lowering environmental impact.

Climate Change Response

SPECIAL SECTION

Response Strategy for Key Transition Risks and Opportunities

Expansion of Renewable Energy Adoption

As the global climate crisis intensifies and uncertainty in the energy market increases, it is becoming increasingly important to establish strategies in response to the need for low-carbon technology investments and changes in the business environment caused by rising electricity rates. To address these environmental shifts, SK chemicals is actively promoting the diversification of its energy portfolio through the adoption of renewable energy. In order to achieve both greenhouse gas reduction and energy cost savings, the company is building a sustainable energy system by expanding on-site power generation facilities and entering into renewable energy purchase agreements.

Solar Energy Generation

T7, T11 | Carbon Reduction Task 4

To reduce greenhouse gas emissions and energy costs, SK chemicals has installed solar power generation systems at its sites. Since 2023, the Cheongju site has installed 1.1 MW of solar panels on its parking lots and rooftops, generating 1,381 MWh in 2024. At its Pangyo ECO Lab headquarters, solar panels were installed on the building's exterior at the time of construction and are used to generate renewable energy.

PPA and REC Procurement

T11 | Carbon Reduction Task 4

To meet its RE100 target by 2032, SK chemicals is executing concrete actions such as entering into PPA(Power Purchase Agreement) contracts and purchasing REC(Renewable Energy Certificates). Beginning in July 2024, the Ulsan site started sourcing 10 MW of solar power through a VPPA, supplying 4,745 MWh of renewable energy annually. This will be expanded to 13,140 MWh annually from 2025. At its Shantou plant in China, a 2 MW on-site rooftop PPA has been signed, supplying 1,846 MWh of renewable energy in 2024. SK chemicals plans to progressively expand its PPA agreements and cover any remaining energy demand through REC purchases to achieve RE100 by 2032.

External Carbon Reduction Projects

Cookstove CDM(Clean Development Mechanism) Project

O2

SK chemicals is implementing a cookstove distribution project targeting residents in central and northern Myanmar. This project aims to replace traditional cooking methods with high-efficiency cookstoves[1] reducing fuel consumption and harmful indoor air pollutants. It contributes to both greenhouse gas reduction and improvements in indoor air quality and cooking conditions. Verified carbon reduction credits from this project can later be converted into offset credits aligned with the company's climate strategy. To improve energy access and quality of life for vulnerable populations in Myanmar, the company plans to distribute approximately 18,000 additional cookstoves.

1) Cookstoves are cooking devices made of metal, cement, or clay that improve thermal efficiency, reduce cooking time, and lower firewood use, contributing to GHG reductions.

Climate Change Response

SPECIAL SECTION

Response Strategy for Key Transition Risks and Opportunities

To achieve its 2040 Scope 1 and 2 Net Zero targets, SK chemicals has identified four core carbon reduction tasks: transition to low-carbon processes, switch to eco-friendly fuels, shift mobile combustion sources, and introduce renewable energy. The company has established annual reduction plans through 2040 and offset strategies for residual emissions.

Scope 1 Net Zero Strategy & Plan

To reduce Scope 1 emissions, SK chemicals has prioritized the conversion of production processes to low-carbon operations and the transition to low-emission fuels. For example, the Ulsan plant, which has a high energy demand and is emission-intensive, has converted certain processes to lower-emission alternatives. In some cases, by-product gases(containing hydrogen) generated during processes are captured and reused as an energy source, helping to reduce greenhouse gas emissions. In 2023, the DMT process boiler was modified to allow hydrogen co-firing, thereby replacing the use of conventional fossil fuels. Detailed information about process and fuel conversion results can be found on pages 39 and 40. SK chemicals plans to expand the use of hydrogen fuels across more production sites and processes over time and aims to transition 100% of mobile combustion sources to hydrogen and electric vehicles by 2030.

Scope 2 Net Zero Strategy & Plan

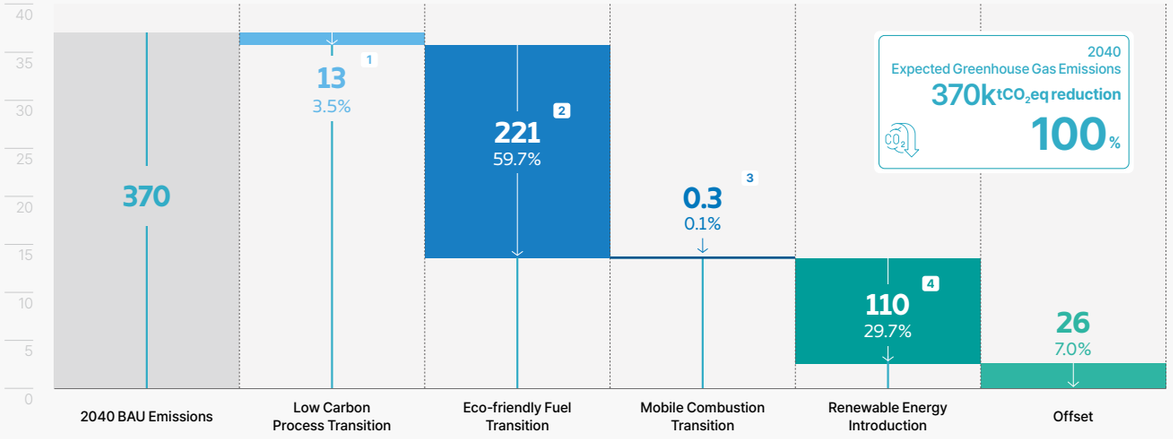
Scope 2 emissions reduction is addressed through strategies targeting electricity and steam. In the electricity domain, the company has set an RE100 goal to switch all operations to renewable energy by 2032. To this end, solar self-generation facilities were installed at the Cheongju site in 2023, and the Ulsan site signed a PPA(Power Purchase Agreement). SK chemicals plans to expand the use of solar and wind energy in phases. By 2032, it aims to adopt a second large-scale wind PPA and secure additional Renewable Energy Certificates(RECs) for remaining energy usage to fully achieve RE100. For steam, SK chemicals plans to use steam produced from low-carbon fuels such as hydrogen as an energy source at its production sites. Based on the planned steam purchasing strategy, approximately 61ktCO_2eq of greenhouse gas emissions are expected to be reduced by 2026, with a cumulative reduction of about 143ktCO_2eq by 2040. This equates to a more than 90% reduction compared to BAU levels. The company is closely collaborating with its utility affiliate, SK multi utility, to implement this plan.

Carbon Reduction Tasks

	1 Low Carbon Process Transition	2 Eco-friendly Fuel Transition	3 Mobile Combustion Transition	4 Renewable Energy Introduction
Reduction measures	• DMT process transitioned to low-carbon	• Hydrogen fuel introduced across all processes at Ulsan Plant including DMT, CHDM, Copolyester; • Use of steam produced from LNG and hydrogen fuels	• Headquarters and Ulsan Plant business vehicles transitioned to eco-friendly vehicles	• PPA, REC, on-site solar power generation
Reduction Scope	Scope 1, 2	Scope 1, 2	Scope 1	Scope 2

Greenhouse Gas Reduction Amounts by Carbon Reduction Task[1)]

Unit: ktCO_2eq



1) This goal was established assuming hydrogen infrastructure development, low-carbon technology development such as hydrogen combustion, and expansion of the renewable energy power generation market in the region where the business sites are situated. The actual greenhouse gas reduction implementation path may change depending on technology development and market conditions.

Climate Change Response

SPECIAL SECTION

Response Strategy for Key Transition Risks and Opportunities

To achieve Net Zero across the full value chain, including Scope 3, by 2050, SK chemicals has developed and is executing a strategy focused on establishing a circular economy system and engaging subsidiaries in target-setting. The company will fulfill its responsibilities to future generations and the environment by reducing operational waste and supporting supplier-level greenhouse gas reduction efforts.

Scope 3 Net Zero Strategy & Plan

Category 1(Purchased Goods and Services) and Category 12(End-of-Life Treatment) Reduction Strategy: Circular Economy System

Through a circular economy system, SK chemicals is building a sustainable economic model. Unlike linear economy models that rely on continuous extraction of raw materials, circular economy systems reuse resources repeatedly in the production cycle, minimizing environmental impact and waste. In 2023, SK chemicals became the world's first to commercialize polyester chemical recycling raw materials and production facilities, which serve as the foundation of a closed-loop recycling system. Ongoing product research and process development continue to expand this system.

Category 5(Waste) Reduction Strategy: Operational Waste Reduction

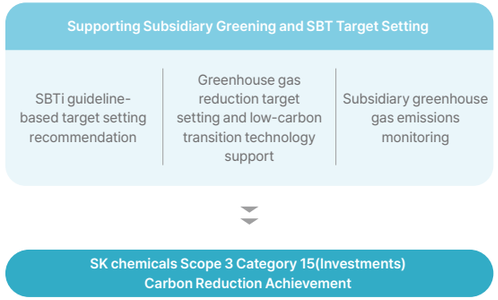
In line with national policies and goals, SK chemicals is reducing operational waste from its facilities to decrease Scope 3 emissions. In 2024, the Ulsan site implemented waste reduction measures such as process sludge minimization, achieving a 97% recycling rate and earning the Gold grade in the Zero Waste to Landfill(ZWTL) certification. The company aims to maintain this performance and extend waste management across its subsidiaries to further reduce related greenhouse gas emissions.

Category 10(Processing of Sold Products) Reduction Strategy: Net Zero Support for Processing Suppliers

In the chemical industry, processes such as injection molding and extrusion require energy, leading to Scope 3 emissions post-shipment. SK chemicals is providing active support, including information sharing, to encourage participation from key processing partners in climate action, aiming to reduce downstream emissions.

Category 15(Investments) Reduction Strategy: Engagement for Subsidiary Target Setting

To achieve Scope 3 Net Zero, SK chemicals has established an engagement strategy in accordance with SBTi guidelines to reduce emissions in Category 15(Investments).
Based on the GHG Protocol, six of the company's subsidiaries and affiliates are classified under Scope 3 Category 15 emissions, accounting for approximately 20% of SK chemicals' total Scope 3 emissions as of 2024. The company promotes and supports the establishment and approval of SBTi-aligned targets at its investees, thereby proactively managing climate-related risks. This approach is aimed not only at making declarations of Net Zero, but also at accelerating implementation and strengthening execution. SK chemicals is pursuing close cooperation with its investees to achieve these engagement goals.



Climate Change Response

SPECIAL SECTION

Response Strategy for Key Transition Risks and Opportunities

Development of Sustainable Products

As awareness of the need to address climate change continues to grow, there is a declining preference for carbon-intensive products that emit significant greenhouse gases during the production process, while demand is rising for products with lower environmental impacts. SK chemicals is responding to these trends by developing sustainable products based on recycled and bio-based materials. Through these efforts, the company addresses key climate-related risks such as the decreased demand for petroleum-based products(T8) and the increasing customer demand for alternatives to petroleum-based products(O4), thereby enhancing its competitiveness in the chemical materials market.

Expansion of Bio-Based Product Research

T8 O4

SK chemicals established a production system for 5,000 tons of the bio-based polyol PO3G(branded as ECOTRION) after years of R&D and began full-scale commercial production in 2022. This is the first such commercialization in Korea and the second globally. ECOTRION is a 100% plant-based polyol derived from fermented industrial starch and is used as a raw material in polyurethane elastomers, spandex, and synthetic leather. It has gained attention from companies in the global textile and sports goods industries.

The bio-based PO3G made from plant-derived industrial starch has obtained 100% bio-content certification[1] from relevant U.S. and European agencies. To strengthen bio-material development capabilities, SK chemicals is collaborating with suppliers, sharing PO3G market trends with Chinese chemical firms, and initiating joint R&D projects to improve product performance. These efforts are expected to enhance the company's competitiveness in the bio-material market. The company plans to expand these collaborations further.

1) Certified by the USDA's BioPreferred Program and TÜV Austria cert GmbH's OK BIOBASED

SK chemicals has started supplying its ECOTRION product to Hyosung TNC(a spandex specialist) and Carbon, a global 3D printing company. Hyosung TNC became the first in the world to launch bio-based spandex using ECOTRION. In 3D printing, ECOTRION has been applied to liquid resins for sports products that require shock absorption and support, supplying to major global sports brands. For promotional efforts, SK chemicals showcased ECOTRION at the NW Materials Show, a leading footwear trade show in the western U.S., receiving positive feedback. In 2024, ECOTRION was applied to the outer cover of Dunlop Sports' Srixon golf balls, where it helped reduce energy loss upon impact while increasing driving distance. It is marketed as offering both performance and carbon reduction benefits due to its 100% bio-based content. The company plans to continue expanding applications based on customer demand.

Ecotrion Vegan Leather Brand 'Nakes'

Ecotrion Bio Spandex Apparel

For detailed information on(T8) decreased demand for petroleum-based products, please refer to <Special Section Circular Economy –(CR2) Response Strategy> for Decrease in demand for petroleum-based products <Expansion of Renewable Raw Material Use>. Link

Other response strategies related to(O4) increased customer demand for alternatives to petroleum-based products are detailed in <Special Section Circular Economy>. Link

Golf Balls Applying Ecotrion

Climate Change Response

SPECIAL SECTION

Response Strategy for Key Transition Risks and Opportunities

Product LCA Execution and Carbon Footprint Reduction

T8 O4

As the role of companies in preventing the acceleration of climate change becomes increasingly emphasized, a growing number of customers and investors are giving greater importance to the environmental impact of products in their purchasing and investment decisions. Consequently, the ability to identify and manage environmental impacts throughout the entire product life cycle—from raw material extraction, transportation, and production to distribution, use, and disposal—has become a key element of corporate competitiveness.

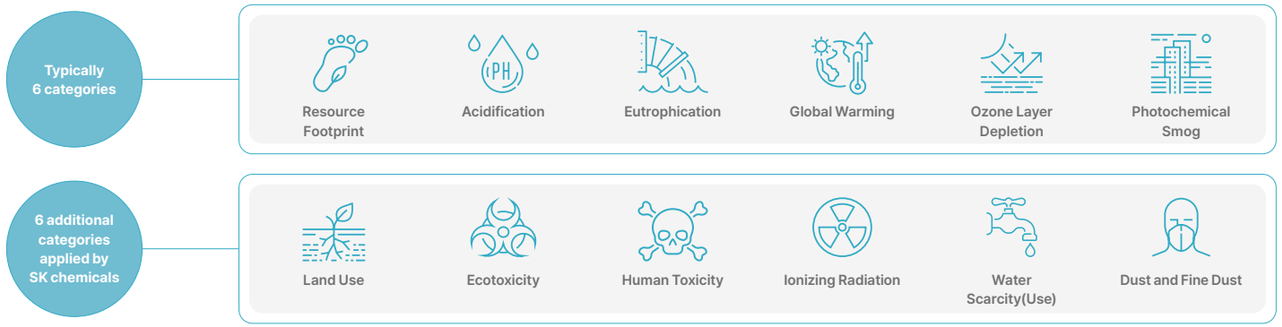
SK chemicals conducts Life Cycle Assessment(LCA)[1] to comprehensively analyze the environmental impacts of its products across 12 categories, including global warming and ozone depletion. With the goal of completing LCAs for all Green Chemicals products by 2025, the company conducted assessments in 2022 for 19 types of copolyester, one engineering plastic product group(SKYPURA-PCT), and raw materials such as SKYDMT and SKYCHDM, which are used in various polymer resins.

In 2024, LCAs were also performed for functional materials SKYBON and SKYPEL, covering 99% of Green Chemicals product sales, which corresponds to 73% of the company's total revenue including the Pharma business. SK chemicals has established an enterprise-wide LCA system, formed a dedicated LCA team to oversee product assessments and customer support, and integrated LCA-related tasks into executive KPIs to ensure that performance is reflected in compensation. The company is also updating LCA data for the copolyester product group in response to changing business conditions and the latest process data, with plans to complete LCAs for all Green Chemicals products.

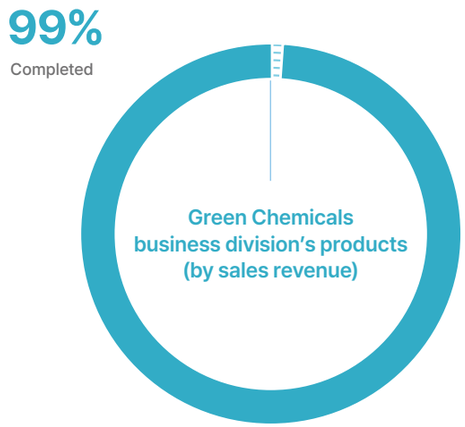
Furthermore, SK chemicals uses LCA data to evaluate and reduce key environmental impacts such as greenhouse gas emissions. In particular, it uses carbon footprint[2] results to identify high-emission processes and develop appropriate reduction measures. Through active collaboration with suppliers, the company continuously updates LCA data and is committed to delivering low-carbon products. SK chemicals remains focused on minimizing environmental impacts throughout the production process and on leading in the production of environmentally responsible products.

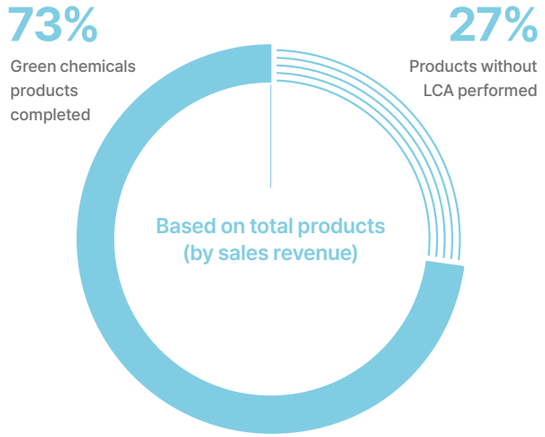
1) Life Cycle Assessment(LCA): a method for evaluating environmental impacts across a product's life cycle
2) Carbon footprint: the total greenhouse gas emissions generated throughout the product life cycle, from raw material extraction to final product delivery

SK chemicals' Impact Categories(12 types)



Cumulative LCA performance in 2024





* Figures are based on SK Chemicals (standalone basis)

Climate Change Response

SPECIAL SECTION

Response Strategy for Key Transition Risks and Opportunities

Climate Change Disclosure

SK chemicals systematically manages climate-related information through an internal ESG data management system and ensures transparent disclosure. This approach addresses (T3) the increasingly stringent greenhouse gas reporting obligations and (T13) stakeholder concerns regarding reliable disclosure of climate targets and activities.

Development and Implementation of ESG Data Hub

T3

To meet strengthened GHG reporting requirements, SK chemicals has developed and implemented ESG Data Hub, an internal ESG data management system. This enables accurate and efficient management of ESG data, including GHG emissions, in alignment with evolving reporting standards. To manage rising costs such as human capital and system establishment, the company completed the construction of Scope 3 data functionality in 2024, established internal policies and processes for total GHG data management, and introduced internal control functions.

Participation in Global Initiatives

T13

To address stakeholder concerns and mitigate skepticism regarding climate targets and actions, SK chemicals continues to strengthen disclosure. Since 2021, the company has disclosed carbon emissions and reduction targets through the Carbon Disclosure Project(CDP), building trust among global investors and stakeholders. In recognition of its efforts, SK chemicals received an A rating in CDP's 2024 evaluations for both climate change and water security. By actively disclosing climate-related information, the company aims to reduce Reputational risks stemming from stakeholder concerns.

Energy-Efficient Use

Identification and Implementation of Energy-Saving Initiatives

O1

SK chemicals identifies and implements energy-saving initiatives in three stages: auditing, analysis and planning, and project execution. During audits, monthly utility energy consumption and cost trends are reviewed. In the analysis and planning phase, current energy use is analyzed to minimize costs, including the identification of inefficiencies. Internally generated examples of energy savings are used to develop optimization measures. At the implementation stage, each production unit executes its own projects. Progress and outcomes are monitored annually and reported to management. Energy-saving targets are incorporated into executive KPIs and linked to performance evaluation and compensation.

Audit
- Monthly analysis of energy usage and cost trends by utility

Analysis and Discussion
- Issue analysis and identification of energy reduction projects

Project Execution
- Promotion and monitoring of energy reduction projects by production departments
- Linked to management(plant manager) KPI tasks

A representative example of energy-saving initiatives is the achievement by SK chemicals' Ulsan Plant in 2024, where five initiatives resulted in approximately KRW 1.4 billion in cost savings. The Ulsan Plant sets an annual target of reducing energy costs by at least 2% compared to the previous year as part of its business planning. This target is reflected in the KPI of the production executive in charge of the plant and is promoted as a key project. SK chemicals will continue to enhance the energy efficiency of its production and logistics systems, aiming to optimize processes and reduce both energy consumption and greenhouse gas emissions.

Ulsan Plant 2024 Energy Saving Key Tasks

Energy Audit

Utility usage analysis and derivation of efficiency improvement measures

Execution of Energy Saving Tasks

Optimization of cooling tower operation

Electricity 675 MWh

Optimization of production process operation

Electricity 1,796 MWh

Fuel(LPG/LNG) 18 TJ

Steam 9,469 ton

KRW 1.4 billion Savings Effect

Climate Change Response

SPECIAL SECTION

Climate Scenario Analysis

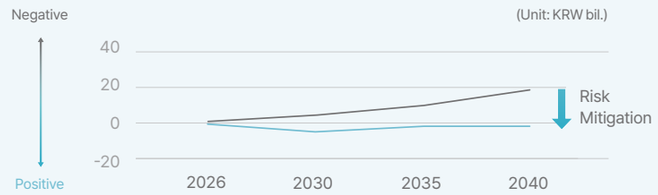
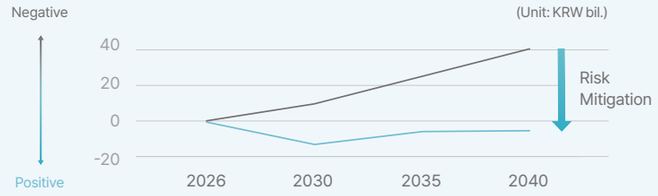
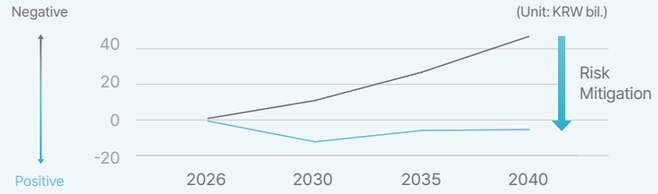
Transition Risk and Resilience Assessment

In accordance with TCFD recommendations, SK chemicals analyzed the financial impact of potential climate-related risks to develop proactive responses. The analysis focused on transition risks under Korea's carbon pricing regime, including potential costs associated with strengthened emissions trading schemes. To assess the financial impact of transition risks, the company applied three IEA scenarios—STEPS(Stated Policies), APS(Announced Pledges), and NZE(Net Zero by 2050)—to compare cost implications under different carbon pricing trajectories.

Overview of Transition Risk Scenario Analysis[1)]

Scenario	Assumption	Carbon Price in 2040[2)]
STEPS(Stated Policy Scenarios) • Scenario reflecting only policies currently implemented or firmly underway • Approximately 2.5~2.7°C	• Reflects only previously announced policy measures and goals, without assuming additional strengthened policies or accelerated technological innovation, based on the current pace of technology diffusion.	Approximately KRW 100,000
APS(Announced Pledges Scenario) • Scenario where all officially announced reduction targets(pledges, NDCs, etc.) by countries are fulfilled • Approximately 1.7~2.1°C	• Assumes fulfillment not only of announced greenhouse gas reduction targets(NDCs, long-term strategies, etc.) but also of pledges not yet legislated as of now. • Assumes commercialization of technologies necessary for pledge fulfillment within the specified timeframe.	Approximately KRW 240,000
NZE 2050(Net Zero Emission by 2050 Scenario) • An ideal high-intensity reduction scenario to limit the global average temperature rise to below 1.5°C in line with the Paris Agreement goals. • Approximately below 1.5°C	• Assumes achievement of approximately 70~80% or more renewable energy share, cessation of internal combustion engine vehicle sales limited to developed countries, commercialization and rapid diffusion of renewable energy and carbon reduction technologies such as CCUS, hydrogen transition, and solar power, leading to international-level reductions and attainment of 2050 Net Zero. • Assumes simultaneous, strong policy implementation by all countries and enhanced global cooperation.	Approximately KRW 280,000

Results of Transition Risk Scenario Analysis

Analysis of domestic carbon emission allowance costs from 2026 to 2040	Amounts based on 2040 values	
	BAU	Emission allowance purchase cost KRW 16.2 billion
	Net Zero implementation	Emission allowance sales revenue KRW 1.9 billion
	BAU	Emission allowance purchase cost KRW 38.8 billion
	Net Zero implementation	Emission allowance purchase cost KRW 4.5 billion
	BAU	Emission allowance purchase cost KRW 45.4 billion
	Net Zero implementation	Emission allowance sales revenue KRW 5.3 billion

1) Emission allowance price projections by scenario were analyzed based on the national GHG reduction target for 2030 and the carbon neutrality scenario for 2050.
2) The cost was calculated using the average 2024 KAU24 price based on the Emissions Trading Market Information Platform.

Climate Change Response

SPECIAL SECTION

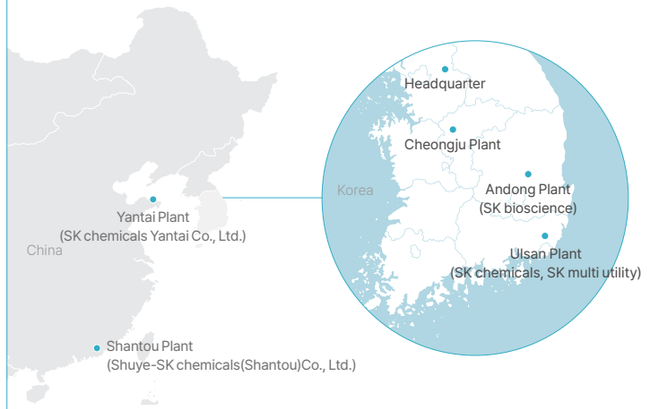
Climate Scenario Analysis

Physical Risk Scenario Analysis Overview

SK chemicals also conducted scenario analysis of physical risks based on TCFD guidance. Using the S&P Global Climanomics tool, the company assessed the impact of climate hazards across eight risk types, including extreme heat, river and urban flooding, coastal flooding, typhoons, wildfires, drought, and water stress. The analysis incorporated four IPCC-defined Shared Socioeconomic Pathways(SSPs) from the Sixth Assessment Report. The study included SK chemicals' major domestic and overseas sites, as well as key operations of its subsidiaries SK multi utility and SK bioscience, to ensure an integrated risk perspective. Based on the results, the company plans to establish site-specific response strategies and enhance risk management systems.

Physical Risk Analysis Scope

SK chemicals included its newly acquired Shuye-SK chemicals(Shantou)Co., Ltd. in 2023, as well as major subsidiaries SK multi utility's Ulsan plant and SK bioscience's Andong plant, in the scope of physical risk analysis. The company took an integrated approach to assessing climate risks across its core subsidiaries, identifying risk factors spanning different business areas and enhancing response strategies accordingly.



Physical Risk Scenario Analysis

For the scenario analysis of physical risks, SK chemicals applied four SSP(Shared Socioeconomic Pathways) scenarios outlined in the IPCC Sixth Assessment Report. For conservative risk estimation, the analysis focused primarily on SSP5-8.5, a high-emission scenario with the most severe projected climate impacts. In parallel, a low-emission scenario(SSP1-2.6) was also analyzed to evaluate impacts across a wide range of climate change pathways. The results from this analysis are being used to understand the scope of climate impacts and will inform the company's site-level climate risk response strategies and long-term risk management planning.

Scenario	Assumption and Description
SSP 1-2.6	• Sustainable development path based on renewable energy technology advancement and international cooperation • Average temperature expected to rise by 1.8°C and sea level to rise by 30-60cm by 2100.
SSP 2-4.5	• Intermediate path maintaining current development trends with partial climate policy adoption. • Average temperature projected to rise by 2.7°C and sea level by 40-70cm by 2100.
SSP 3-7.0	• Path vulnerable to climate change due to passive mitigation policies and delayed technology development • Average temperature expected to rise by 3.6°C and sea level by 50-90cm by 2100.
SSP 5-8.5	• Fossil fuel-dependent development path prioritizing economic growth • Greenhouse gas emissions rapidly increase throughout the 21st century, doubling emissions by 2050 compared to current levels. • Average temperature expected to rise above 4.4°C and sea level by 60-110cm by 2100.

Analyzed Hazards and Results

To conduct a detailed analysis of physical risks, SK chemicals utilized the S&P Climanomics tool to assess eight types of climate-related hazards: extreme heat, flooding(river, urban, coastal), typhoons, wildfires, drought, and water stress. The analysis was conducted in 10-year increments from the 2020s through the 2050s. The results are expressed as Modeled Average Annual Loss(MAAL), which represents the modeled average annual financial loss(e.g., asset damage, operational cost) over each 10-year period, derived from each hazard's impact pathways.

Category	Disaster	Financial Impact Pathway
Acute	Flooding (fluvial, pluvial, coastal)	• Repair and restoration costs due to flooding • Opportunity costs from operational downtime
	Typhoon	• Repair and restoration costs due to typhoons • Opportunity costs from operational downtime
	Wildfire	• Opportunity costs from operational downtime • Reduced labor productivity • Physical damage costs to facilities/equipment
	Drought	• Water costs due to drought • Building foundation repair costs • Opportunity costs from operational downtime
Chronic	Extreme temperature	• Electricity costs for responding to rising average temperatures • Maintenance costs for cooling and air conditioning systems • Reduced labor productivity
	Water stress	• Water costs due to worsening water stress • Opportunity costs from operational downtime

Climate Change Response

SPECIAL SECTION

Climate Scenario Analysis

Physical Risk Scenario Analysis Results

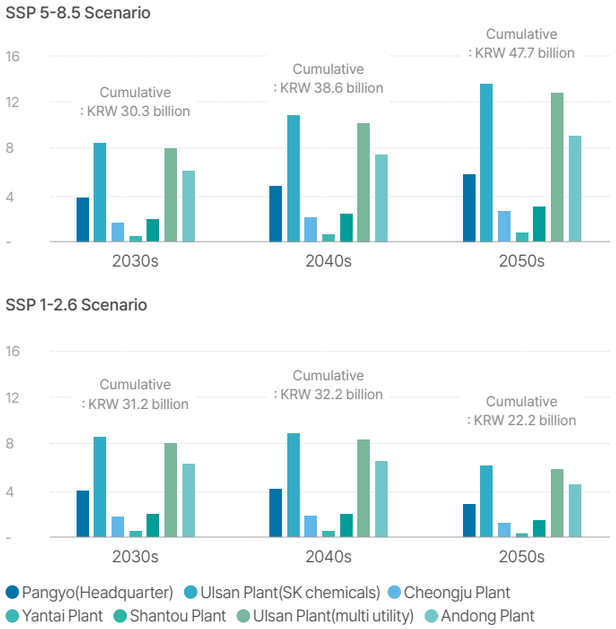
The results indicated that SK chemicals' Ulsan and Andong plants are most financially exposed to physical climate risks. Although the highest asset loss rate is projected for Pangyo HQ(4.2% by 2050), the greatest financial impact is expected at Ulsan and Andong, where most fixed assets are located. The main risk identified was extreme heat, attributed to a combination of urban heat island effects and foehn winds in industrial zones. Urban flooding, typhoons, and drought were found to affect all sites, though their quantitative impacts were relatively minor. Additional risks identified include river flooding near Shantou and Andong plants, and wildfire exposure at Yantai, Shantou, and Andong. Overall, the projected annual loss rate is trending upward, reinforcing the need for enhanced risk response strategies tailored to each site.

Physical Risk Response Strategy

To minimize the financial impact of acute physical risks such as floods, typhoons, wildfires, and droughts, SK chemicals is actively investing in structural improvements to enhance resilience. The company also analyzes site-specific characteristics related to chronic risks like extreme temperatures and water stress and is establishing long-term monitoring plans. Since all SK chemicals sites have been identified as highly vulnerable to extreme heat, targeted response strategies have been strengthened. The company is transitioning to high-efficiency cooling systems and installing energy storage systems for better energy distribution and usage. It has also introduced insurance coverage for asset loss and is adopting eco-friendly architectural design. In addition to facility-level actions, SK chemicals implements protective measures for employee health and safety, including heat illness prevention programs and heat-sensitive facility classifications. During heatwaves, working hours are adjusted to reduce physical strain, ensuring both productivity and safety. Through this comprehensive strategy, the company aims to actively mitigate physical climate risks and establish a sustainable management environment that supports long-term growth and stability.

Cumulative Asset Loss by Business Location

Unit: KRW bil.



SSP 5-8.5 Scenario Average Annual Asset Loss Rate(%) by Disaster Type at Each Business Site

Disaster	Temperature extreme				Pluvial flood				Typhoon				Drought				Wildfire				Fluvial flood				Water stress			
Year	2020s	2030s	2040s	2050s	2020s	2030s	2040s	2050s	2020s	2030s	2040s	2050s	2020s	2030s	2040s	2050s	2020s	2030s	2040s	2050s	2020s	2030s	2040s	2050s	2020s	2030s	2040s	2050s
Pangyo(Headquarters)	1-2%	2%	2%	2%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0%	0%	1-2%	1-2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Ulsan Plant	0-1%	1-2%	1-2%	1-2%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cheongju Plant	1-2%	1-2%	1-2%	2%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0%	0-1%	0-1%	0-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Yantai Plant	0-1%	1-2%	1-2%	2%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0%	0%	0%	0%	0%	0%	0%	0%
Shantou Plant	0-1%	0-1%	1-2%	1-2%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0%	0%	0%
SKMU(Ulsan Plant)	0-1%	1-2%	1-2%	1-2%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
SKBS(Andong Plant)	2%	2%	2%	2%	0-1%	0-1%	0-1%	1-2%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0-1%	0%	0%	0%	0%

Modeled Average Annual (MAAL, Modeled Average Annual Loss)
- 0%
- 0-1%
- 1-2%
- 2%

Climate Change Response

SPECIAL SECTION

Climate Risk and Opportunity Management

Climate Risk and Opportunity Management Process

SK chemicals systematically identifies and assesses climate risks and opportunities on a regular basis. This process helps identify material risks and opportunities and evaluate their financial impacts on the company's financial status, performance, and cash flow. Based on this assessment, climate risk and opportunity management plans are established. A dedicated risk management team monitors the implementation and effectiveness of these plans, updating or modifying strategies as needed in response to emerging risks or changes in risk magnitude. The ESG Task Force reflects the results of these reviews in reports submitted annually to the ESG Committee.

Integration With Enterprise Risk Management

SK chemicals has established an enterprise-level integrated risk management framework that incorporates both financial and non-financial risks. Climate risks are managed as part of this enterprise risk management process. The Risk Management Committee oversees financial, ethical/compliance, SHE, human rights, and climate risks. The CRO(Chief Risk Officer) who leads the committee, reports significant climate-related risks to the CEO and Board of Directors quarterly. In 2024, climate and ESG performance were reported to the ESG Committee, and any material risk events are escalated to the Board for deliberation at the highest level.

Enterprise Risk Management Process

Climate Risk and Opportunity Management Process

	Physical Risk	Transition Risk/Opportunity
Identification of climate risks/ opportunities	• Selection of physical risk analysis tools and scenarios • Selection of assets for analysis • Identification of physical risk Pool based on whether financial loss is derived from scenario analysis.	• Consideration of global initiative requirements such as TCFD and CDP when composing the Pool • Analysis of peer industry and consideration of relevant SASB topics and industry characteristics • Specification reflecting internal and external factors such as business status, domestic and international laws, and environmental regulations.
Materiality assessment of climate risks/ opportunities	• Assessment of quantitative materiality[1] of financial loss for analyzed assets • Identification as significant physical risk if it exceeds 25% of the quantitative materiality amount.	• Assessment of the magnitude[1] and likelihood[2] of transition risks and opportunities by internal stakeholders • Review of assessment results through collection of external stakeholders' opinions • Determination of risk factors and identification of significant transition risks and opportunities exceeding the threshold.
Financial impact analysis of climate risks/opportunities	• Evaluation of financial impact caused by significant risks and opportunities identified through materiality assessment • Calculation of the impact of climate risks and opportunities on the current financial position, financial performance, and cash flows • Estimation of expected impacts on the company's financial position, financial performance, and cash flows over the short, medium, and long term.	
Establishment, implementation, and monitoring of response strategies	• Setting goals and management plans considering actual and potential impacts of material issues • Monitoring progress of key enterprise risk tasks by the dedicated risk management organization • Identification of new risks through monitoring and establishment/promotion of feasible response strategies.	
Reporting results	• Reporting risk response status by the dedicated risk management organization to CRO/CEO(ongoing) • Reporting management status of key risks and opportunities to the Board of Directors through the Risk Management Committee; • Determining alignment with SK chemicals' sustainability management system through Board reporting to shape overall corporate strategy and policy direction.	

1) Setting materiality amount based on the company's assets and sales(applying Financial Supervisory Service's quantitative criteria elements)
2) Short-term: within 1 year, Medium-term: over 1 year up to 5 years, Long-term: over 5 years.

Climate Change Response

SPECIAL SECTION

Climate Targets

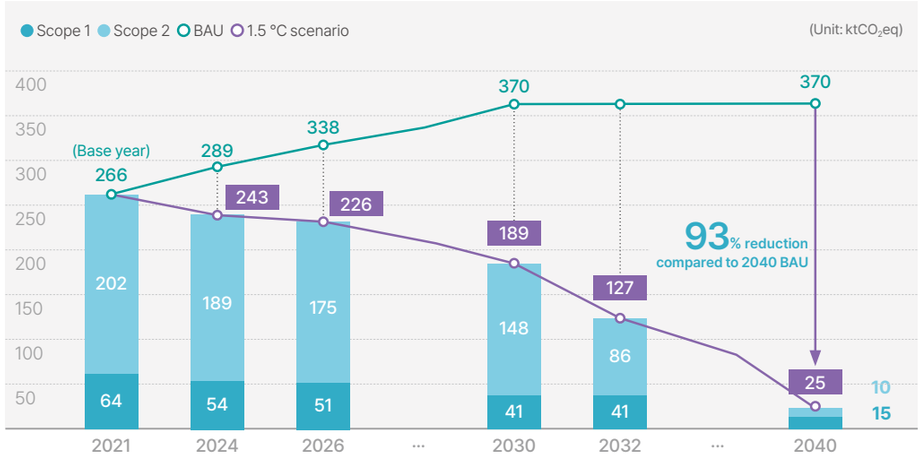
2040 Net Zero

Recognizing GHG reduction as a critical responsibility, SK chemicals has committed to achieving Scope 1 and 2 Net Zero by 2040 in alignment with global carbon neutrality efforts. For Scope 3 emissions, which encompass the full value chain, the company has also established phased reduction targets through 2050. The Scope 1, 2, 3 near-term targets were established in accordance with the Science Based Targets initiative(SBTi) guidelines, and in December 2023, SK chemicals received approval for its near-term targets from the SBTi .SK chemicals monitors its performance against these targets and will continue to refine its approach in line with changes in the business environment.

Net Zero Achievement Roadmap by Scope[1)]

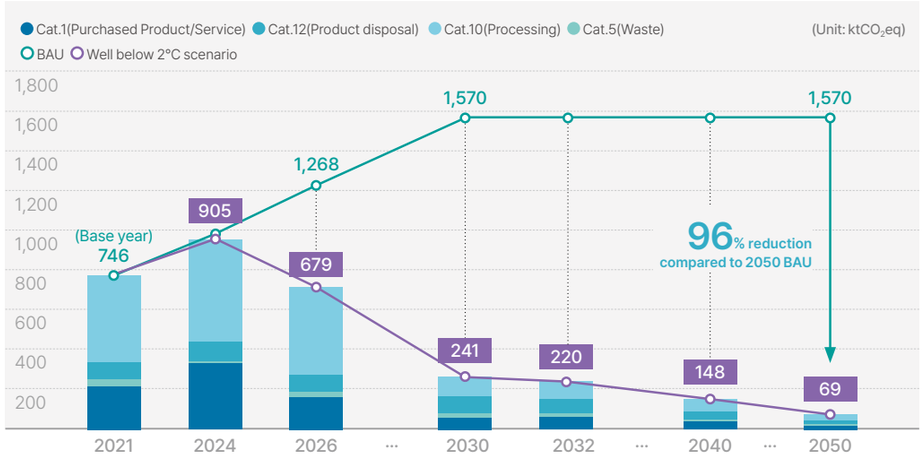
Scope 1 and 2 Net Zero Roadmap

To reduce Scope 1 emissions, SK chemicals is improving process efficiency and transitioning to low-emission fuels at its Ulsan site. Hydrogen fuel is gradually being applied across all processes, including DMT and CHDM, to achieve an 81% reduction in emissions from the 2040 BAU baseline. For Scope 2 emissions, the company has committed to RE100 by 2032 for electricity and is switching to steam generated from LNG and hydrogen from 2026 at the Ulsan site. This strategy is expected to achieve a 94% reduction in Scope 2 steam emissions by 2040 compared to BAU. The remaining emissions are expected to be offset.



Scope 3 Net Zero Roadmap

Since 2021, SK chemicals has been building a Scope 3 inventory and calculating emissions. The company has identified major categories accounting for 69%(746ktCO_2eq) of total Scope 3 emissions. It plans to reduce emissions by 96% from BAU and 91% from the base year by 2050 using absolute reduction methods. Through the promotion of recycling and bio-based materials and the development of a sustainable circular economy ecosystem, emissions from Category 1(Purchased Goods and Services) and Category 12(End-of-Life Treatment) are expected to decrease by 484ktCO_2eq by 2030 from the base year.



1) These targets were established based on assumptions including hydrogen infrastructure development in the regions where business sites are situated, development of hydrogen combustion technology, and expansion of the renewable energy generation market. The actual greenhouse gas reduction implementation path may change depending on technology development and market conditions.

Climate Change Response

SPECIAL SECTION

Climate Change Metrics

Key Metrics for Measurement and Management

Achieving Net Zero at Business Sites

SK chemicals is working toward achieving Net Zero by 2040 through efforts to reduce direct and indirect greenhouse gas emissions at its business sites. The company has established core metrics to support systematic implementation of Net Zero and regularly measures progress to inform management.

Quantitative Indicator Link

Scope 1, 2 greenhouse gas emissions	Total energy usage at business sites	Renewable energy usage at business sites	Eco-friendly vehicle transition rate

Climate Change Mitigation Measures Across the Value Chain

SK chemicals aims to mitigate climate change not only at the site level but across the entire value chain. Since 2021, the company has calculated greenhouse gas emissions from Scope 3 and is implementing reduction strategies based on those results. To address the negative climate impacts of incinerated business waste and excessive fossil fuel use, additional metrics have been established and are being managed, including waste emissions at operation sites and the volume of renewable raw materials used.

Quantitative Indicator Link

Scope 3 greenhouse gas emissions	Waste emissions generated at business sites	Renewable raw material usage	Clean tech research and development expenses

Implementation Performance by Task for Achieving Net Zero at Business Sites

To achieve Net Zero, SK chemicals has designated key tasks such as transitioning to low-carbon processes, switching to low-emission fuels, procuring renewable energy, and adopting eco-friendly vehicles. The company is increasing the implementation rate of each task annually in accordance with the established roadmap. When new tasks arise, such as securing additional renewable energy sources, they are incorporated into the KPIs of relevant executives to ensure they are reflected in evaluation and performance-based compensation. SK chemicals is committed to pursuing sincere and continuous efforts to reduce greenhouse gas emissions and ultimately achieve Net Zero at its business sites.

	Low-carbon Process Transition	Low-carbon Fuel Transition	Renewable Energy Procurement	Eco-friendly Vehicle Transition
Management Target	Reduction of 13ktCO_2eq of greenhouse gas emissions through low-carbon process transition	221ktCO_2eq of greenhouse gas reduction through fuel transition	Achieve 100% renewable energy procurement(RE100)	100% transition of all domestic vehicles to hybrid, electric, or hydrogen by 2030
2024 Performance	13ktCO_2eq reduction	10ktCO_2eq reduction	Used 7,980 MWh of renewable energy	11 eco-friendly vehicles out of 46 Total vehicles
Goal Achievement Rate	100%	5%	5%	24%

CIRCULAR ECONOMY

Key Achievements in 2024

1. Invest 54% of Chemical Research Institute's research budget in clean technology(recycled materials / bio materials)
2. Ulsan Plant maintains zero waste to landfill(ZWTL) Gold certification

Mid- to Long-term Plan

1. Maintain 50% of the research budget for clean technology in the chemical research institute until 2028
2. Expand sales ratio of recycled/bio-based product
3. Maintain ZWTL Gold certification at Ulsan Plant.

Approach to Circular Economy

SK chemicals' Green Chemicals business division creates social and environmental value through plastic recycle, making it a core driver of sustainable growth. We are building a portfolio of circular recycling and bio-based products, establishing a circular economy system that reduces resource waste throughout the product lifecycle from production to use and disposal as a Recycle Solution Provider. Additionally, we have established the 'Recycle Innovation Center,' which conducts one-stop operations from research to raw material development and material production, accelerating the establishment of a complete circular economy system.

Waste Collection

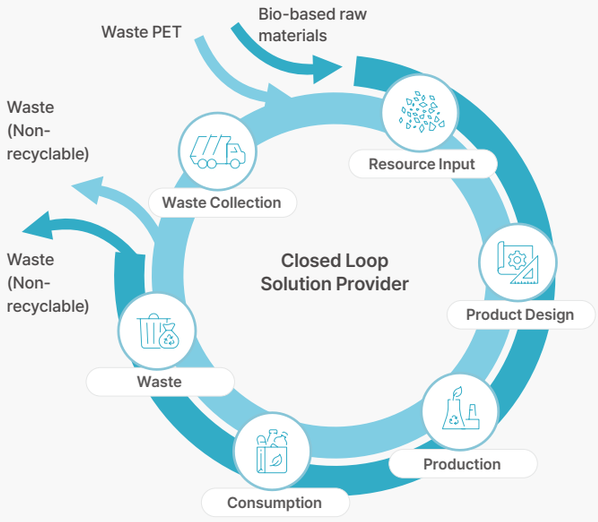
Strengthening Waste Securing and Circular Recycling Cooperation System

- Converting PET fibers and films that are difficult to mechanically recycle into circular recycling raw materials
- Securing waste raw materials in cooperation with brand owners/local governments and implementing closed loop using circular recycling

Consumption

Expanding Market for Environmentally Impact-Reducing Products

- Changing consumer perception and expanding demand through increased application of bio/recycled-based products



Resource Input

Expansion of Renewable Raw Material Use

- Reducing petroleum-based raw material use through supply of bio-based products
- Reducing petroleum-based raw material use and increasing waste-derived raw material use through supply of recycled products

Product Design

Material/Process Research to Reduce Environmental Impact

- Improving post-use recyclability through R&D of PET and recyclable products

Production

Expansion of Recycle Production Infrastructure

- Enabling expansion of supply for circular recycling product-based products by recycling waste PET

Strengthening Waste Management at Business Sites

- Increasing industrial waste recycling rate and reducing waste at business sites

Circular Economy

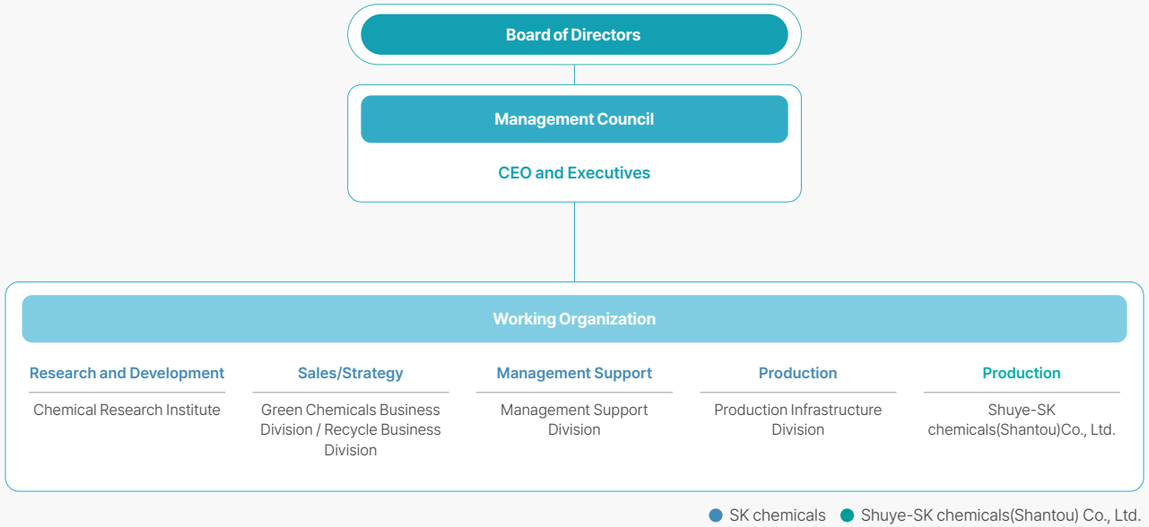
SPECIAL SECTION

Circular Economy Governance

Circular Economy Response Organizational System, Structure

SK chemicals' Green Chemicals business has reorganized its organizational system to promote eco-friendly business while transitioning to a resource circulation-centered business portfolio. Resource circulation and the circular economy are key pillars of new growth engines, with related business investment decisions and status discussed at the Board of Directors. The management council, including the CEO, reviews and manages KPIs and implementation status established by each working organization to achieve common circular recycling goals. Each working organization is classified according to operational characteristics into research and development, sales/strategy, management support, and production. Within each organization, divisions establish and implement resource circulation strategies for each business considering company-wide mid- to long-term growth strategies and targets.

Circular Economy Response Organization



Circular Economy Policy

SK chemicals discloses core tasks and management systems for resource circulation response through its Environmental Management Policy. Core tasks include expanding the sales revenue proportion of products based on recycled and bio-based materials that replace the use of petroleum-based feedstock, and increasing the recycling rate of waste for resource circulation. To this end, the 'Green Purchasing Principles' are applied company-wide to expand the use of renewable raw materials, while environmental assessments and management are conducted during corporate purchasing contracts and supply chain control stages.

Key Contents of Environmental Management Policy

1. Roles and responsibilities of environmental management organization
2. Commitment to continuous innovation for providing eco-friendly products and services
3. Commitment to the operation of raw material, product, and waste management systems
4. Key initiatives for resource circulation
   - Expansion of waste recycling rate and increase in sales proportion of eco-friendly products
5. Measures to raise awareness among internal and external stakeholders, including employees and partners
6. Waste management policy and green purchasing policy

SK chemicals Environnemental Management Policy

Circular Economy

SPECIAL SECTION

Resource Circulation Governance

Board of Directors

Roles and Responsibilities

- The Board of Directors, which reviews important matters across management, reviews and approves goals and strategies of the Eco Transition strategy based on circular economy.
- The Board regularly reviews at least once a year the progress status of Eco Transition business promotion along with detailed implementation plans, promotion strategies, and performance related to circular economy and environmental management.

Expertise Enhancement and Capacity Development

SK chemicals conducts training to strengthen the expertise of the Board of Directors in decision-making related to circular economy.

Date	Training	Content	Participants
2024. 04.23	Visit to Chinaplas exhibition	Visited booths of global companies and peers, understood trends in the recycle business, etc.	5 persons[1)]
2024. 04.24	China business dynamics	Political/economic situation and industrial policies in China and the company's business direction	5 persons[1)]

1) Ahn Jae-hyun, Moon Seong-hwan, Cho Hong-hee, Park Jung-soo, Kim Sunmee Choi

Circular Economy 2024 Board of Directors Agenda

SK chemicals reports circular economy-related agenda items to the Board of Directors.

Date of Meeting	Agenda	Approval Status
Aug. 8th	Progress report after Shuye-SK chemicals (Shantou)Co., Ltd. acquisition	Reported
Jun. 26th	Report on investment in CP-2 ECOZEN dedicated facility	Reported
Aug. 24th	Recycle business progress report	Reported
Oct. 30th	Provision of payment guarantee for overseas subsidiary Shuye-SK chemicals(Shantou)Co., Ltd.	Approved
	• Bio-polyol(POG3) business report	Reported

Management Council

Roles and Responsibilities

- The management council, including the CEO, continuously reviews the implementation of environmental strategies, including the circular economy, and oversees related corporate activities.
- Additionally, it sets and discloses circular economy goals, monitors related risks and opportunities, and periodically reviews the effectiveness of business structures, policies, and procedures. The management council establishes response teams, manages personnel, and assigns appropriate responsibilities and authority.
- The management council reviews and approves company-wide circular economy response strategies and tasks, leads Eco Transition business investments and discoveries, and promotes cooperation among related departments.

Linking Circular Economy Performance to Rewards

SK chemicals effectively manages and improves the performance of circular economy and recycling businesses by setting them as core KPI tasks for the CEO and executives. The KPIs for the CEO and executives in production, research, and marketing include evaluation indicators for expanding the recycling business. KPI evaluation results are linked to the reward system and reflected in compensation calculations. Additionally, each organizational unit establishes and executes key action tasks linked to the executives' KPIs. The KPIs are evaluated at year-end based on goal achievement levels(S, A, B, C) and are connected to the reward system for employee compensation.

Working Organization

Roles and Responsibilities

- The working organization performs roles centered on circular recycling and bio-materials businesses including research, production, sales, and strategic support.
- The Chemical Research Institute consists of R&D and regulatory/certification parts; the R&D part conducts product design, circular recycling process and technology development, and w-PET raw material research. The regulatory/response part handles eco-friendly certification responses and new sanctions responses.
- The Green Materials Business Division and Recycle Business Division operate sales/marketing and business strategy parts. The sales/marketing part implements detailed tasks and expands sales of circular recycling and bio products, while the business strategy part undertakes roles such as building closed loops, entering and promoting circular recycling businesses, and securing circular recycling raw materials.
- The Ulsan Plant's Production Infrastructure Headquarters operates production and environment parts. The production part is responsible for producing circular recycling products and bio-based products, while the environment part is responsible for waste management and improving recycling rates.
- Shuye-SK chemicals(Shantou)Co., Ltd. has production and purchasing parts; the production part is responsible for producing circular recycling products(CR-PET, r-BHET), and the purchasing part handles w-PET raw material procurement.

Key Tasks and Performance Indicators for Performance Evaluation by Target

Target	Key Tasks and Performance Indicators for Performance	Performance Indicators	Compensation Ratio
CEO	BM transition	Recycle business infra establishment, circular recycling strategy development and execution	30%
Head of Green Materials Business Division	Expansion of sales of recycle and bio-based raw material products	Sales volume of recycle and bio-based raw material products	20%
Head of Business Development Division	Advancing circular recycling	Expansion of recycle business recycle business infra establishment, circular recycling strategy development and execution	45%
Head of Production Infrastructure Division	Circular recycling product production technology	Production volume of circular recycling products	10%
Director of Chemical Research Institute	Development of recyclable products	Launch of new recyclable product	10%

Circular Economy

SPECIAL SECTION

Identification and assessment of circular economy risks and opportunities

SK chemicals has established a pool of circular economy risks and opportunities that may arise in the Green Chemicals Biz and Pharma Biz areas through trend analysis, stakeholder consultations, and literature review. Using the ESRS E5 resource use and circular economy subtopic classification, risks and opportunities were categorized. A materiality assessment of circular economy was conducted based on scale(the financial impact of risks and opportunities) and likelihood(the expected timing of occurrence) to identify key circular economy risks and opportunities. By establishing response strategies for each risk and opportunity, the commitment to circular economy transition was concretized, and circular economy performance is measured and systematically managed through related performance indicators and target setting.

Circular Economy Risk and Opportunity Management Process

: Key Risks and Opportunities

Category	NO.[1]	Risks and Opportunities	Business Division[2]	Scopes of Impact			Impact of Risks and Opportunities on Business	Scale[3]	Likelihood[4]
				Up-stream	Own Operation	Down-stream			
Risk	CR1	Increased need for investments in recycling production infrastructure development and material development	GC	●	●	●	Increased R&D and facility investments to reduce energy consumption and resource waste and to manufacture recyclable plastics	●	●
Risk	CR2	Decrease in demand for petroleum-based products	GC		●	●	Sales decline of existing petroleum-based products due to increased demand for products using renewable raw materials and recycled materials	●	●
Risk	CR3	Increased need to change product design due to strengthened packaging-related regulations	GC		●	●	Sales decline and reduced sales of non-recyclable products due to strengthened packaging-related regulations	●	●
Risk	CR4	Increased price volatility of recycled raw materials	GC	●	●		Increased production costs due to price volatility caused by rising demand and supply shortages of recycled raw materials	●	●
Risk	CR5	Increased need to obtain recycling certification	GC		●		Increased management costs such as obtaining certifications	●	●
Risk	CR6	Inadequate product quality control	Pharma		●	●	Recall costs and inventory disposal losses due to the recall and disposal of pharmaceuticals with safety and efficacy issues	●	●
Risk	CR7	Inadequate waste disposal process	Overall		●		Legal liability costs such as fines/penalties arising from violations of related regulations like the Waste Management Act if hazardous waste is not properly disposed of.	●	●
Risk	CR8	Introduction of new waste-related regulations	GC		●		Operational and capital expenditures arising from new regulations related to hazardous waste treatment, transportation, storage, disposal, and registration.	●	●
Opportunity	CO1	Strengthening of plastic-related regulations	GC		●	●	Increased sales of related products due to strengthened regulations on plastics, leading to higher demand for sustainable packaging.	●	●
Opportunity	CO2	Research and development of low-carbon products and improvement of existing systems	GC		●		Reduction of circular recycling product manufacturing costs through expanded R&D on HTR(Hard to Recycle) raw material research and process efficiency	●	●
Opportunity	CO3	Expansion of waste recycling at business site	Overall		●		Reduction of waste disposal costs by increasing waste recycling rates at business sites	●	●

1) CR: Circular Economy Risk, CO: Circular Economy Opportunity
2) GC: SK chemicals' Green Chemicals business division, Pharma: SK chemicals' Pharmaceuticals business division
3) Scale measure ● Very low: KRW 0 ~ 600 million, ● Low: KRW 600 million ~ 2.4 billion, ● Mid: KRW 2.4 billion ~ 12 billion, ● High: Over KRW 12 billion
4) Likelihood ● Low: Not expected to occur within 5 years, ● Medium: Likely to occur within 1–5 years, ● High: Likely to occur within 1 year

Circular Economy

SPECIAL SECTION

Circular Economy Risk and Opportunity Response Strategy

SK chemicals systematically identifies and manages risks and opportunities related to circular economy for sustainable growth. Key risks and opportunities previously identified have been selected as core management targets based on their strategic importance and business impact, while other risks are continuously monitored and addressed according to internal priorities. SK chemicals aims to transform circular economy challenges into opportunities for new value creation and provide solutions for a sustainable future.

: Key Risks and Opportunities

Category	Risks and Opportunities		RO Assessment Basis	Management Approach	Detail Page	Shortcut Link
Risk	CR1	Increased need for investments in recycling production infrastructure development and material development	SK chemicals has set the recycle business as a mid- to long-term growth strategy and is continuously making facility and R&D investments to build recycling production infrastructure to expand this business. The transition to a circular economy requires substantial investments in recycling production infrastructure and new material development. This can have a significant financial impact, which is already materializing as investments and related costs are being incurred in chemical recycling technology and bio-material development. Considering the strengthening of domestic and international circular economy policies and the increasing market demand for products that avoid plastic regulations, this investment necessity is assessed as a key risk due to its high likelihood and significant financial impact.	• Strategic alliances and investment acquisitions with recycling technology developers and equipment manufacturers • Securing proprietary technology through clean technology R&D	57	Click
Risk	CR2	Decrease in demand for petroleum-based products	Considering the sales revenue scale of petroleum-based virgin products, even a partial decrease in existing demand can have a significant financial impact. In particular, with the introduction of regulations such as the 2030 mandatory use of recycled plastics, a decline in sales of petroleum-based virgin plastics is expected within the next five years. Given these regulatory changes and market trends, this risk is assessed as significant due to its considerable impact and high likelihood.	• Substitution of petroleum-based products through development and expanded sales of products using recycled raw materials	58	Click
Risk	CR3	Increased need to change product design due to strengthened packaging regulations	Regulations on plastics are being strengthend on a global level to reduce environmental pollution caused by plastic waste after use, and policies restricting the use of non-recyclable products are expanding. As a result, consumer goods companies are shifting product design towards recyclability and reusability from the design stage. Considering SK chemicals' current product portfolio, the financial impact of these changes is expected to be significant.	• Expansion of recyclable products in the PET recycle stream • Establishment of closed loop solutions	58-59	Click
Risk	CR4	Increased price volatility of recycled raw materials	If policies to expand the use of recycled plastics are strengthened in the future, demand for recycled raw materials may increase, intensifying competition for securing these materials and causing high price volatility. This could negatively affect product profitability. Although the likelihood of occurrence in the short term is low and it is not classified as a major risk, internal continuous monitoring is conducted considering the importance of raw material supply stability and its significant impact.	• Collaboration with recycled material suppliers to ensure stable sourcing of raw materials	61	Click
Opportunity	CO1	Strengthening of plastic-related regulations	Considering the scale of sales subject to recycling(such as CR PET), this is assessed as an important opportunity factor. Bio-based products like Ecozen and PO3G are already commercialized and generating sales, and chemical recycling products have also been commercialized since 2023 with sales occurring. Given the current market situation and sales performance, increased customer demand for products that avoid plastic regulations is evaluated as a major opportunity with large scale and high likelihood.	• Expansion of customer support and marketing to grow the recycle product market	60-61	Click
Opportunity	CO3	Expansion of waste recycling within business site	Expanding recycling of waste generated in production processes can serve as an opportunity by reducing waste disposal costs and increasing resource efficiency. This holds importance in strengthening internal capabilities and fulfilling environmental responsibility during the transition to a circular economy. Although the financial impact from expanding waste recycling within business sites is not high enough to be classified as a major risk, it is managed as an internal execution task within the sustainable management strategy, recognizing its importance for capability enhancement and environmental responsibility.	• Strengthening waste management and expanding recycling	62	Click

Circular Economy

SPECIAL SECTION

Key Risk and Opportunity Response Strategy

Expansion of Recycling Production Infrastructure

CR1

With the strengthening of global climate crisis response and carbon neutrality policies, the chemical industry is facing a critical turning point toward transitioning to an eco-friendly production system. As environmental pollution caused by plastic waste emerges as a global issue, most countries are reinforcing policies and regulations to establish circular economy ecosystems, while consumer awareness is also changing. These changes in the business environment represent both risks and new opportunities for SK chemicals. Through investments in production infrastructure to build an Eco Transition business portfolio, we aim to transform these risks into future growth engines.

SK chemicals has been pursuing strategic investments to expand recycling production infrastructure. In 2021, we invested in shares of Shuye, a Chinese PET circular recycling company, and signed a raw material sourcing contract. In 2023, we invested KRW 130 billion to acquire a depolymerization plant that chemically breaks down waste plastics to produce circular recycling raw material 'r-BHET' and a 'CR-PET' production facility that uses r-BHET from the depolymerization plant to produce recycled PET. Subsequently, we established Shuye-SK chemicals(Shantou)Co., Ltd. in Shantou, China, equipping commercialized circular recycling raw material and product production facilities, thereby strengthening our capabilities to supply recycled materials in the global market.

Furthermore, by 2025, SK chemicals plans to build a Recycle Innovation Center(RIC) within the Ulsan Plant site and install a depolymerization pilot facility to establish a circular economy system. This facility is expected to verify commercialization technologies for low-quality waste plastics and expand the possibilities of circular economy. Consequently, we will have a system organically capable of conducting all processes from technology verification, research and development, polymerization, to mass production at a single site in the Ulsan Plant.

Through these investments in recycling plastic production infrastructure and the establishment of a circular economy system, SK chemicals will leap forward as a global materials enterprise leading a sustainable future, establishing a virtuous business model that simultaneously realizes environmental value and economic growth.

Clean Technology Development Investment

CR1

As greenhouse gas emissions from plastic production and disposal processes continue to increase, the importance of establishing a circular economy system and developing recycled materials is emphasized more than ever. In this context, SK chemicals aims to contribute to reducing plastic waste and build a sustainable business model through the development of recycled material technologies. Based on stable profits from existing high value-added products, SK chemicals is making strategic investments to expand circular recycling and bio-materials in response to changing markets. Through this, we realize the 'Eco Transition' management strategy centered on recycled and bio-material businesses and aim to achieve the goal of becoming a 'Global Leader in Recycled and Bio-Materials.' To concretize this vision, we are expanding investments in clean technologies represented by plastic circular recycling technology and bio-material development.

Circular recycling materials refer to materials recycled by chemically breaking down waste PET, while bio-materials are products using plant-derived industrial starch as raw materials. SK chemicals' Chemical Research Institute is expanding clean technology R&D from basic research on circular recycling to process technology development and product development. We are strengthening research on waste PET raw material processing and recycling through chemical recycling technology to effectively recycle 'Hard to Recycle' materials such as colored PET, films, and fibers that were difficult to process by conventional mechanical recycling methods. In the bio-material field, we are participating in building a sustainable society through de-composition by expanding development of automotive interior materials and fashion products using plant-derived raw materials that emit less greenhouse gases compared to conventional petroleum-based materials. To accelerate clean technology development, SK chemicals has set a goal to expand clean technology research expenses up to 50% of total R&D expenses by 2028. Through continuous research and development of high value-added recycled and bio-based raw material-based materials, we aim to establish ourselves as a company leading sustainability in the global materials market.

- Expansion of copolyester production facilities and RIC construction
- Securing r-BHET production facilities
- Securing PET recycling raw material

- Eco-friendly portfolio development
- Recycled raw material research and development

Circular Economy

SPECIAL SECTION

Key Risk and Opportunity Response Strategy

Expansion of Renewable Raw Material Use CR2

As demand for petroleum-based products declines and the importance of using renewable raw materials grows, SK chemicals is focusing on developing products using bio-based and waste plastic raw materials, expanding the use of sustainable materials.
"Ecozen" and "Ecotrion" use raw materials derived from plant-based starch, helping to reduce the use of petroleum-based resources. Additionally, SK Chemicals strengthens resource circularity by utilizing "Ecotria," a material made from recycled substances used by consumers. "Ecotria R," which applies mechanical recycling technology, and "Ecotria CR," which uses chemical recycling technology, both include recycled PET (PCR) content. These materials incorporate certified recycled feedstocks that have received either the GRS (Global Recycled Standard) certification or the ISCC (International Sustainability & Carbon Certification) PLUS certification.
Furthermore, SK chemicals is expanding the use of renewable raw materials throughout the entire supply process by revising its supply chain ESG management policy in the second half of 2024 and newly establishing green procurement standards. Through green procurement, environmental assessments are conducted at the procurement stage for raw and subsidiary materials, thereby strengthening purchasing contracts and supply chain management.

Green Procurement Standards

1. Eco-labeled products certified under the "Environmental Technology and Environmental Industry Support Act"
2. Excellent recycled products certified under the "Act on Promotion of Saving and Recycling of Resources"
3. "Act on the promotion of purchase of green products"
4. U.S. Department of Agriculture(USDA) 100% Bio-based(plant-based) or BioPreferred certified products
5. ISCC Plus certified products(Circular and Bio-based)
6. Global Recycled Standard(GRS) certified products
7. Products certified by the EU Directorate-General for Health and Food Safety(DG SANTE) as food contact safe recycled materials
8. Renewable raw materials that can contribute to reducing environmental impact and building a circular economy beyond the above

ECOTRIA Claro 300

Development of Recyclable Products CR3

Global plastic regulations are rapidly strengthening around Extended Producer Responsibility(EPR). As regulations such as the EU ESPR[1] and PPWR[2] spread, domestic expansions of EPR target items and increases in recycling obligation rates are underway. Accordingly, consumer goods companies are shifting towards product designs that facilitate recycling and reuse from the design stage, such as single-material use, colorless designs, and improved label removability. SK chemicals is leveraging these strengthened packaging regulations as an opportunity to expand its product portfolio. SK chemicals develops products that are easy to recycle by considering the entire lifecycle from product design to post-use disposal. Alongside developing products using recycled raw materials, it is expanding a product portfolio that facilitates PET recycling after consumer use. Notably, SKYPET CR, which applies chemical recycling technology, maintains the same physical properties as virgin PET while enabling repeated recycling; it successfully entered the market in 2024 through collaborations with major food and beverage companies. Additionally, the high-performance copolyester material 'ECOTRIA Claro' offers excellent transparency and recyclability simultaneously, with its lineup expanded to include a chemically recycled version(Claro CR). ECOTRIA CLARO 300, launched in 2024, enhances molding versatility and strengthens competitiveness in large-capacity water bottles and beverage packaging markets. Meanwhile, SK chemicals' technological capabilities and product competitiveness have been internationally recognized. 11 PET and recyclable products have been verified for recyclability by the Association of Plastic Recyclers (APR) in the United States, while 10 products have been validated by the European PET Bottle Platform (EPBP).
In the future, regulations on non-recyclable materials are expected to strengthen, leading to a continuous increase in demand for recyclable materials. SK chemicals will proactively respond to these changes by building a sustainable portfolio and creating new growth opportunities.

1) ESPR: Ecodesign for Sustainable Products Regulation
2) PPWR: Packaging and Packaging Waste Regulation

Circular Economy

SPECIAL SECTION

Key Risk and Opportunity Response Strategy

Establishment of Closed Loop Solution

CR3

SK chemicals is advancing beyond developing products that are easy to recycle in response to increasingly stringent packaging regulations by establishing a Closed Loop Solution. Through the Closed Loop Solution, a circular structure is built that returns waste generated during the product manufacturing process and post-consumer waste back into raw materials for product manufacturing. Based on a deep understanding of the distinct business characteristics of each industry and the needs of brand owners, SK chemicals is currently expanding collaboration on Closed Loop Solutions with various stakeholders in the circular economy ecosystem, including diverse brand owners, local governments, private organizations, and social ventures. Leveraging this foundation, SK chemicals is promoting its leap forward as an eco-friendly solution provider capable of implementing carbon reduction together with stakeholders.

Hyundai Motor Company and Kia EV3 Study Car Project

Materials Applied to Kia EV3 Study Car

CR-PET
- Circular recycling materials can be infinitely recycled without any degradation in quality.
- It is possible to achieve the same level of quality as new products in terms of color, impact resistance, and other attributes.

FLEXIA
- A soft polyester material that can serve as an alternative to PVC and is capable of circular recycling.

SK chemicals applied six types of automotive parts made from circular recycled and bio-materials to Kia's EV3 Study Car. Polyester circular recycling technology was introduced to automotive parts previously composed of various heterogeneous materials, applying SK chemicals' recycle solutions to five major parts including the headliner and seats. Additionally, SK chemicals' new polyester soft material FLEXIA was applied to the floor mats to enhance recyclability. SK chemicals collaborated with Hyundai Motor Company and Kia for 14 months to apply these materials to automotive components requiring high durability and physical properties that were difficult to achieve with conventional mechanical recycling products. Through this collaboration with the automotive industry, SK chemicals has laid the foundation for establishing a Car-to-Car Closed Loop, the ultimate goal for sustainable automobiles, and plans to strengthen cooperation with automakers as well as parts and material companies, expanding the application of circular recycling technology beyond packaging to industries such as apparel and electronics.

Signed MOU with the Ministry of the Interior and Safety and Local Governments for Waste Banner Recycling

To reduce the annual generation of 6,000 tons of waste banners, SK chemicals launched a Circular Recycling Project for Banner Waste in 2024, in collaboration with the city of Gunsan and Revelop. Through this initiative, waste banners collected in Gunsan were recycled into PET fibers. In 2025, the project is being expanded under the supervision of the Ministry of the Interior and Safety through a memorandum of understanding(MOU) signed with five local governments(Sejong, Gangneung, Cheongju, Naju, and Changwon) and corporate partners(Revelop, Sejin Plus, and Kakao). Currently, waste banners are difficult to recycle and do not decompose easily in landfills, resulting in most being incinerated. Some are upcycled into items such as shopping bags, garbage collection sacks, or eco-bags. In contrast, SK chemicals circular recycling solution enables waste banners to be processed back into PET fibers, which can then be used to produce new banners building a sustainable resource circulation system. SK chemicals is taking the lead in establishing a Textile-to-Textile recycling framework that supports repeated recycling and aims to accelerate and expand the circular ecosystem through collaboration between government agencies and private companies

Circular Economy

SPECIAL SECTION

Key Risk and Opportunity Response Strategy

Expansion of Circular Recycling Business Market

CO1

As plastic usage regulations strengthen mainly in the EU and the United States, enterprises' responsibility has expanded to cover the entire process from product manufacturing to disposal. In response to these regulatory changes, FMCG(Fast Moving Consumer Goods) enterprises are establishing sustainable management strategies through voluntary environmental commitments, which is leading to increased demand for recycled materials. The combination of stricter regulations and voluntary corporate participation is continuously expanding market opportunities for circular recycled products.
SK chemicals actively participates not only in plastic exhibitions held in the United States, China, and Europe but also in exhibitions across various industries with needs for circular recycled materials such as cosmetics and medical supplies, promoting its products and hosting technical seminars to resolve customers' technical issues.

United States I SK chemicals participated in 'NPE,' the largest plastics exhibition in the Americas, introducing chemical recycling technology-based products such as 'ECOTRIA' and 'ECOTRIA CLARO.' Additionally, at the 'Medical Design & Manufacturing West 2024(MD&M)' medical supplies exhibition, SK chemicals showcased medical materials including SKYGREEN S2008, ECOZEN, and SKYPEL, focusing on applications in medical devices and packaging. Notably, through recyclable materials like CLARO and recycled material-based ECOTRIA, SK chemicals plans to expand its presence in the medical market.

Asia I At the 'China Beauty Expo 2024,' SK chemicals participated under the slogan 'Redefining Sustainable Future Beauty Packaging,' showcasing sustainable plastic materials that include recycled raw materials(Circular recycle) or are recyclable into PET after use(CLARO). A separate session was also held for global cosmetics brand representatives to introduce materials optimized for eco-friendly cosmetic containers, providing solutions for sustainable packaging transitions within China's cosmetics industry.

Europe I At 'LUXEPACK Monaco 2024,' SK chemicals collaborated with global cosmetic container company TOLY to present containers using ECOTRIA CLARO CR-70, a recyclable material containing 70% recycled content, applied to compact cases that traditionally used non-recyclable materials. Additionally, at the 'Plastic & Environment Summit 2024' in France, SK chemicals participated as a presenter alongside partner Albis to introduce the excellence of its chemical recycling technology.

U.S. NPE Booth

China Beauty Expo Booth

Compact Case Presented at LUXEPACK Monaco 2024

Business Cases of Circular Recycled Products Application in 2024

Application of circular recycled PET material in Coldplay's 10th studio album

- Collaboration with Global Record Manufacturer Sonopress
- Use of recycled material equivalent to nine recycled PET bottles per LP record
- Introduction of circular recycled PET replacing polyvinyl chloride(PVC), reducing energy consumption during processing by 85%

100% chemically recycled plastic containers applied to all 13 products of Pulmuone's 'I'm Real' line

- The first case of using 100% recycled plastic containers applying chemical recycling technology for beverage products
- Through this, Pulmuone expects to reduce annual use of virgin plastic by 259 tons

Development of packaging and products for traditional liquor applying circular recycled PET(CR-PET)

- MOU signed with Kooksoondang for development of alcoholic beverage containers based on circular recycled materials
- Supply of 'SKYPET CR' material to Kooksoondang
- Provision of various technical support based on expertise in polyester materials

Circular Economy

SPECIAL SECTION

Key Risk and Opportunity Response Strategy

Expansion of Circular Recycling Business Market

CO1

SK chemicals is actively developing customers and markets based on its circular recycling product portfolio. SK chemicals strives to provide new materials and technological solutions to customers who have experienced technical limitations with existing mechanical recycling materials. By strengthening its collaborative network with customers and brand owners, SK chemicals develops and commercializes products tailored to customer needs. Based on this expanded portfolio of circular recycling and bio-materials, the company plans to increase the related sales proportion of these materials to 80% by 2030. To achieve this, SK chemicals will focus on active marketing, new product development, and expansion of production infrastructure to stably supply products across various domestic and international industries.

Other Risk and Opportunity Response Strategy

Waste Business Cooperation System for Stable Raw Material Supply

CR4

SK chemicals focuses on the chemical recycling of PET, considering the stability of waste-PET supply—through collection, sorting, and raw material processing—as a core element of the recycling business. To this end, SK chemicals is building its own value chain to establish a Closed-Loop system. To secure stable raw materials and maintain price competitiveness, it is introducing recycling cluster construction and digital solution development. Starting with cooperation with domestic local governments for the 'Textile to Textile' concept to gain competitiveness in the textile industry, SK chemicals plans to expand this across the entire industry.

1) Textile to Textile: Textile → Textile circular model

Achievements in Building Green Material Portfolio

October 2019

Utilization of mechanical recycling technology

Launch of 'ECOTRIA R' product using 30% recycled raw material PCR

Acquisition of Global Recycle Standard(GRS) Certification

May 2021

Secured purchase rights for circular recycling raw materials

Secured purchase rights for 20,000 tons of circular recycling raw materials through equity investment in a Chinese company possessing technology and facilities for chemical decomposition of waste PET

October 2021

Application of circular recycling technology 1

Launch of 'ECOTRIA CR' applying circular recycling technology

Established diverse eco-friendly packaging material lineup

January 2022

Application of circular recycling technology 2

Established mass production system for 'SKYPET-CR', the first PET applying circular recycling technology in Korea

Built copolyester and PET lineup in the circular recycling field

May 2022

Started operation of 5,000 ton scale PO3G mass production facility

Full-Scale supply of 'ECOTRION' a high-performance polyol made from plant-based bio-materials as a sustainable alternative for various applications including automotive synthetic leather and footwear

March 2023

Secured production capacity for circular recycling raw materials and products

Secured both feedstock and production facilities for circular recycled polyester through the acquisition of assets from a leading Chinese green materials company

2023

Acquired recycling certification

Completed verification by International Recycling Association for recyclable products

- Verified by US APR(Association of Plastic Recyclers)
- 10 products verified by European EPBP(European PET Bottle Platform)

Expanded ISCC Plus certification items for recycled raw material certification

October 2024

Expansion of ECOTRIA CLARO products

Launched Claro300 with expanded recyclability and molding process diversity

Circular Economy

SPECIAL SECTION

Strengthening Waste Management

CO3

SK chemicals has adopted a transformative approach that redefines waste not merely as a disposal target but as a potential resource, in response to the increasing importance of efficient resource utilization and growing environmental responsibility demands from consumers and investors. Accordingly, SK chemicals has established a strategy to strengthen waste management and increase recycling rates. Through annual reduction targets, systematic management system establishment, waste audits and monitoring, and the introduction of innovative recycling methods, the company generates benefits such as reduced waste disposal costs and improved raw material usage efficiency. Additionally, by acquiring global waste-related certifications, SK chemicals enhances its capability to respond to environmental regulations.

Waste Management Policy

SK chemicals sets a specific annual target to reduce waste generation by 5% compared to the previous year. To maximize the value of generated waste, recyclable waste is systematically sorted, and various recycling partners are continuously identified to effectively improve recycling rates. As a key initiative for waste reduction, SK chemicals is currently replacing the aging boilers at the Ulsan Plant, which used coal and waste wood as fuel, with an LNG boiler system. This transition project, nearing completion, is expected to reduce annual waste generation including coal ash and incineration ash, representing a significant achievement in SK chemicals' efforts to reduce environmental impact.

Waste Management System

SK chemicals monitors waste generation and treatment volumes by type through the Ministry of Environment's 'Allbaro' system for systematic waste management. Waste is legally processed through contracts with licensed waste treatment specialists via incineration, landfill, recycling, and other methods. The company focuses on minimizing environmental burden by reducing landfill and incineration while increasing recycling rates. To this end, SK chemicals continuously identifies and implements new initiatives based on organic cooperation between the Production and SHE teams. SK chemicals classifies waste into General Waste, Designated Waste, and Recyclable Waste according to source and characteristics, thoroughly analyzing the flow from generation to final treatment. Furthermore, it manages the entire process integrally from source management, separate storage, transportation and treatment, to monitoring.

Waste Audit

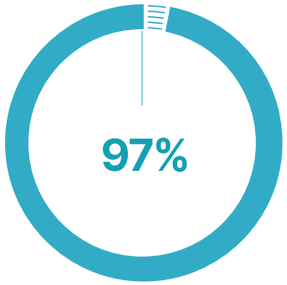
SK chemicals defines all unnecessary substances not classified as products as waste and manages them systematically as waste even if sold for a fee. Waste is managed by categorizing into General and Designated Waste. When expanding new processes, the expected amount and characteristics of generated waste are reviewed in advance and reflected in decision-making. The recyclability of waste generated from new processes is assessed in two stages: first, preliminary evaluation through sample analysis at the research institute; second, before formal emissions occur, final confirmation of recyclability by recycling partners is obtained before applying the process.
Waste generation status is monitored monthly by type. To improve recycling rates, SK chemicals strengthens cooperation with existing recycling partners while actively seeking competitive new recycling partners. The Production team also continuously identifies and implements process improvement projects to reduce waste generation itself.

Waste Recycling Rate

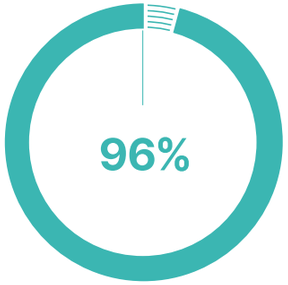
SK chemicals continuously collaborates with treatment partners to promote recycling measures aimed at maximizing recycling of waste generated at business sites. Partnerships are established with treatment companies to develop recycling methods suited to the characteristics of the waste.
Since achieving a 75% recycling rate in 2016, the Ulsan Plant has steadily developed tailored strategies to improve recycling according to waste characteristics. From 2021, by identifying additional partners capable of utilizing waste from wood-fired boilers as flooring material, landfill waste volume was drastically reduced. Process optimization also reduced DMT(Dimethyl Terephthalate) mixture waste by over 50%. Furthermore, a partner capable of 100% recycling MFB(Methyl Paraphenyl Benzoate), a byproduct previously discarded during DMT production, was discovered, improving recycling rates. Through discovering new recycling partners and pursuing process waste reduction projects, waste recycling performance continues to improve.

ZWTL[1] Certification Acquisition

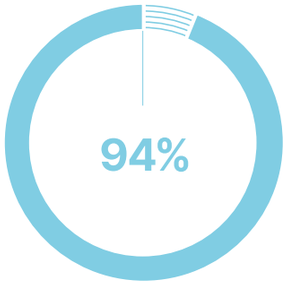
Ulsan Plant Waste Recycling Rate



2024
Maintained
ZWTL Gold Grade



2023
Obtained
ZWTL Gold Grade



2022
Obtained
ZWTL Silver Grade

1) ZWTL: Zero Waste to Landfill

Circular Economy

SPECIAL SECTION

Circular Economy Risk and Opportunity Management

Circular Economy Risk Management Process

SK chemicals identifies and assesses circular economy-related risks and opportunities from 2024 to recognize factors that may impact the company's financial performance and to promote sustainable resource management. For identified factors, relevant operational organizations establish strategies to mitigate risks and pursue opportunities.

Integration with Enterprise Risk Management Process

SK chemicals manages circular economy risks primarily through the Risk Management Committee. The risk management dedicated organization, independent from the circular economy business units and affiliated with the Risk Management Committee, reviews the adequacy ofcircular economy risk response strategies and supplements existing strategies or establishes new ones as needed. The dedicated risk management organization continuously reports the status of circular economy risk identification and responses to the CRO and CEO, and annually reviews changes in the level of circular economy risk exposure.
The CRO, as the chief officer of the Risk Management Committee, provides quarterly reports to the CEO and Board of Directors on the progress of major circular economy risk response tasks. In 2024, reports were made to the Board regarding investments in CP-2 ECOZEN dedicated equipment installation, progress in the Recycle business, and progress in the Bio-Polyol business. Additionally, annual risk management performance is regularly reported to the Board to facilitate deliberation and management of key risks at the Board level.

Enterprise Risk Management Process

Risk Management Based on Environmental Management System(ISO 14001)

SK chemicals has established an environmental management system based on ISO 14001, the International Organization for Standardization's environmental management certification system, and applies it to circular economy risk management at business sites. By promoting efficient use of resources, strengthening circular use, and reducing waste generation, it proactively prevents risks related to resource circulation.

Circular Economy Risk Management Process

Identification of Risks and Opportunities

- Establishing a pool of circular economy risks and opportunities based on analysis of laws/regulations trends, collection of stakeholders opinions, and media research
- Classification of risks and opportunity factors(applying ESRS E5 resource use and circular economy subopic[1] classification)

Assessment of Risks and Opportunities

- Establishment of materiality assessment criteria for risks and opportunities
  - Scale: The magnitude of impact that risks and opportunities have on SK chemicals' financials
  - Likelihood: The expected timing when risks and opportunities may occur
- Collection of opinions related to risks and opportunities through roundtable discussions with internal stakeholders
- Identification of material risks and opportunity factors based on roundtable discussion results

Establishment, Implementation, and Monitoring of Response Strategies

- Establishment and implementation of response strategies/tasks for each circular economy risk and opportunity
- Strategy review and risk exposure monitoring by the dedicated risk management organization within the Risk Management Committee

Result Reporting

- Reporting of risk response status by the dedicated risk management organization to CRO/CEO(ongoing)
- Quarterly reporting by CRO to CEO/Board on progress of major circular economy risk response tasks
- Annual reporting by CRO to Board on risk management performance(at least once a year)

1) Resource inflows, Resource outflows, Waste

Circular Economy

SPECIAL SECTION

Circular Economy Indicators

SK chemicals systematically manages various quantitative indicators to effectively manage circular economy and realize a circular economy.

Sales and Investment Performance Based on Eco-friendly Taxonomy

SK chemicals is not legally subject to the disclosure obligations under the EU Taxonomy, and although K-Taxonomy is not currently a legally mandated standard, the company has voluntarily classified certain economic activities based on this taxonomy to provide more transparent and objective information on its sustainable economic activities as follows.

1. Products Using Recycled Raw Materials(Waste Recycling)

According to the revised Korean Green Taxonomy(K-Taxonomy) as of December 2024, SKYPET CR and some ECOTRIA products produced by the company, which are based on recycled raw materials, fall under '4. Transition to a Circular Economy > a. Production >(2) Production of products using recycled raw materials and circular resources' in Section 1 Green Sector.
The production of these products contributes to achieving the 'Transition to a Circular Economy' among the six environmental objectives presented in the K-Taxonomy, meeting all activity criteria, eligibility criteria, exclusion criteria, and safeguard criteria.
Accordingly, the sales revenue and related CapEx of recycled raw material(waste recycling)-based products deemed compliant with the Green Taxonomy(K-Taxonomy) are as follows.

- 2024 Sales revenue of products based on recycled raw materials(waste recycling): KRW 45.8 billion
- 2024 CapEx for products based on recycled raw materials(waste recycling)[1]: KRW 12.2 billion

2. Bio-based Products

SK Chemicals conducted an internal review of products that can be classified as environmentally sustainable economic activities according to the EU Taxonomy. As a result, Ecotrion and Ecozen products using bio-based raw materials are considered to have potential to contribute to greenhouse gas mitigation(CCM, Climate Change Mitigation). These products are plastic raw materials manufactured based on renewable feedstock and correspond to 'CCM 3.17 Plastic Raw Material Manufacturing' under the EU Taxonomy. This is a qualified economic activity. However, although the DNSH(Do Not Significant Harm) and MS(Minimum Safeguard) requirements were both met, some criteria of the SC(Substantial Contribution) requirement were not fulfilled, so at this point it is not classified as a fully eligible economic activity.[2] Currently, bio-based products do not fully meet all Technical Screening Criteria required by the EU Taxonomy but satisfy some partial criteria. The sales revenue and related CapEx calculation details for these products are as follows.[3]

- 2024 bio-based products[4] sales revenue: KRW 125.4 billion
- 2024 bio-based products CapEX: KRW 1.1 billion

We plan to measure the lifecycle greenhouse gas emissions of bio-based products in the future and demonstrate greenhouse gas reduction effects compared to petroleum-based products so that these products can be classified as eligible economic activities. SK chemicals will continue to expand economic activities that substantially contribute to achieving environmental goals presented in domestic and international sustainability taxonomies.
We will also closely monitor revisions to the EU Taxonomy and Korean Green Taxonomy(K-Taxonomy) and strengthen internal management systems to meet related requirements.

1) SK chemicals' investments related to circular recycling, a waste recycling technology, were established in 2023 Activities are mainly conducted through Shuye-SK chemicals(Shantou)Co., Ltd., but these results are not included in this classification as they pertain to subsidiaries.
2) To classify as eligible economic activities, technology assessment criteria and MS requirements must be met; technology assessment criteria consist of SC requirements and DNSH requirements.
3) The EU Omnibus Package Proposal announced on February 26, 2025, recognizes disclosure for activities partially aligned with certain EU Taxonomy regulations.
4) Bio-based products are classified only if they contain 5% or more biomass content.

Circular Economy

SPECIAL SECTION

Circular Economy Metrics

Clean Tech R&D Expenditure

Category	Unit	2022	2023	2024
Clean Tech R&D Expenses	KRW bil.	10.8	12.9	14.5
R&D related to products using recycled raw materials and waste recycling	KRW bil.	5.8	6.9	9.4
R&D related to bio-based products	KRW bil.	4.8	5.3	4.2
Development of recyclable products	KRW bil.	0.3	0.6	1
Clean Tech R&D expense ratio[1]	%	42	46	54

1) Clean Tech R&D Expenses / Chemical Research Institute R&D Expenses

Raw Material Usage Amounts

Category	Unit	2022	2023	2024
Total raw material use	ton	350,044	298,591	355,888
Renewable raw material use[1]	ton	10,726	5,651	14,137
Waste-based raw material	ton	1,922	2,016	6,130
Bio-based raw material	ton	8,804	3,634	8,007
Renewable raw material use ratio	%	3.1	1.9	4.0

Waste Generation and Recycling Amounts

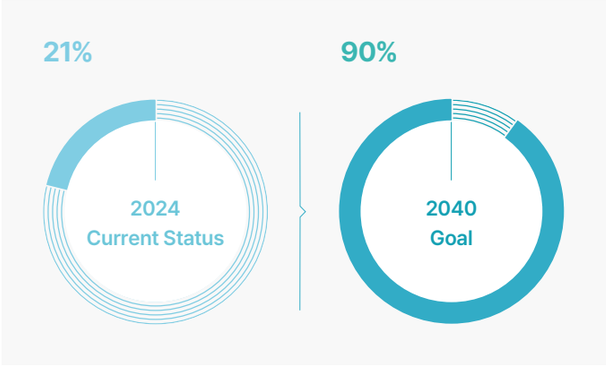
Category	Unit	2022	2023	2024
Total waste generation (general+designated)	ton	17,316	14,148	14,382
Recycling and reuse	ton	13,438	9,935	11,016
Landfill	ton	1,395	491	587
Incineration with energy recovery	ton	1,072	1,848	1,811
Incineration without waste recovery	ton	1,407	1,874	968
Others	ton	4	-	-
Total recycled waste	ton	13,438	9,935	11,016
Recycling rate	%	78	70	77

1) 2022 and 2023 data has been corrected from previous year disclosures due to data errors

Circular Economy Metrics and Targets

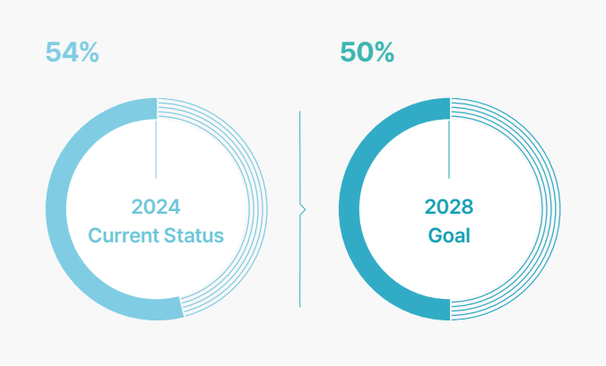
SK chemicals is leading the expansion of portfolios for circular recycled materials and bio-material products under the Eco Transition Management Strategy, aiming to become a Global Leader driving the chemical industry's transition to a circular economy.

Expansion of Sales Ratio for Product Using Recycled Raw Materials and Biomass Raw Materials[1]



SK Chemicals is gradually increasing the sales volume of its green materials under an ambitious goal to raise the proportion of products containing recycled raw materials and biomass-based materials—within its copolyester product line, CR-PET, and biomass-based products—to 90% by 2040. In 2024, they achieved a green material sales ratio of 21%

Increase in Investment Ratio for Clean Tech-related Research



SK chemicals plans to strengthen its research on recycled materials and bio-based materials by maintaining the proportion of investment in the Clean Tech sector(focused on recycling and bio-material research and development) at 50% of the total investment in the Chemical Research Institute until 2028. Investment in Clean Tech R&D increased from 11% in 2011 to 46% in 2023, and further to 54% in 2024.

1) The ratio of green material sales refers to the sales proportion of products made with recycled materials and bio-based materials within the copolyester product line, CR-PET, and bio-based materials

ESG MANAGEMENT

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ENVIRONMENT

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Context

SK chemicals is striving to achieve corporate sustainability while minimizing environmental impacts on the planet's ecosystems by establishing an integrated environmental management strategy. To prepare practical responses to climate change, the company is expanding its Green Chemicals business and developing roadmaps for all products, positioning environmental sustainability as a core management strategy.

*** Reporting Scope**

- SK chemicals – Headquarter(ECO Lab), Ulsan Plant, Cheongju Plant(S-HOUSE)
- SK multi utility – Ulsan Plant
- SK bioscience – Andong Plant(L-HOUSE)
- SK chemicals Yantai Co., Ltd.– Yantai Plant
- Shuye-SK chemicals(Shantou)Co., Ltd.– Shantou Plant

Approach

In 2024, SK chemicals continued to pursue harmonized and integrated environmental management and put sustainable management into practice. Environmental policies are thoroughly reviewed during investment and product development decisions to minimize environmental impact. ESG elements such as GHG reduction and environmental risk management are also reflected in investment decisions. The company aims to achieve sustainable business growth through environmental certifications and the development of an eco-friendly product portfolio. This strategy goes beyond environmental protection to generate broader social benefits and reflects SK chemicals' commitment to a sustainable future.

Environmental Management Strategy and System

Biodiversity Conservation

Water Resource Management

Pollution Management

2024 ACHIEVEMENT & PROGRESS

Key Area	Key Agenda	2024 Goals	2024 Key Achievements	2025 Goals	Mid-to Long-term Plan	Page
Environmental Management Strategy and System	Strengthening ESG governance system	• Establishing an enhanced investment screening system to minimize ESG impact in new business investment decisions	• Introducing an internal carbon price review system for new business investment decisions	• Operation of the internal carbon price system	• Enhancing expertise for management and the Board of Directors to consider climate change and environmental management in decision-making - Conducting specialized training on major environmental issues such as climate change	69
	Establishment of environmental management system	• Achieve ISO 14001 certification for all domestic business sites by 2024	• Expansion of ISO 14001 Environmental Management System certification - Achieve 100% ISO 14001 certification for domestic and overseas production sites on a consolidated basis	• Maintain certification of the environmental management system at all business sites		
Biodiversity Conservation	Establishment of conservation system	• Establishment of Biodiversity System	• Strengthening activities for biodiversity risk analysis and conservation.	• Conducting TNFD Leap approach analysis for direct operational sites, including subsidiaries.	• Implementing AR3T(Avoid, Reduce, Restore & Regenerate, Transform) targets to mitigate biodiversity risks and achieving Nature Positive at operational sites.	73
Water Resource Management	Water resource risk management	• Withdrawal of less than 3.51 million tons of water for SK chemicals Ulsan site and SKMU	• Withdrawal of 4.48 million tons of water for SK chemicals Ulsan site and SKMU Ulsan site - Increase in water usage due to factory expansion and production increase	• Withdrawal of less than 2.04 million tons of water at Ulsan site by 2025 • Withdrawal of less than 7.44 million tons of water at SKMU by 2025 - Increase in withdrawal due to operation of new combined heat and power plant at SKMU	• Strengthen water resource risk management system linked with physical risk analysis due to climate change • Reduce water usage by 10% by 2030 compared to 2021 levels	82
Pollutant Management	Pollutant reduction	• Manage pollutant concentrations with internal standards stricter than legal emission limits - Air pollutant emission concentrations - Manage NOx, SOx, dust at 50% of legal regulatory standards - Water pollutant emission concentrations - COD/BOD/SS: 50% of legal regulatory standards - TOC: 80% of legal regulatory standards	• Air/water pollutants: Exceeding targets strengthened beyond legal emission limits achieved	• Achieve management of water/air pollutant emission concentrations at approximately 40% of legal emission standards by 2025	• Strengthen internal management standards compared to legal emission limits	85
	Hazardous chemical management	• Reduce hazardous chemical(Solvent Naphtha) usage by 60% compared to 2021	• Reduce Solvent Naphtha usage by 30% compared to 2021	• Reduce Solvent Naphtha usage by 20% compared to 2024 levels	• Phase out hazardous chemical(Solvent Naphtha) by 2029	89

Environmental Management Strategy and System

01.

ENVIRONMENTAL MANAGEMENT STRATEGY & SYSTEM

The environmental management strategy focuses on systematically managing resource efficiency and environmental impact for sustainable growth. SK chemicals continues efforts to improve company-wide environmental performance through energy and water resource savings, greenhouse gas and pollutant emission management, and waste recycling. Environmental management governance is strengthened centered on the ESG Progress Team and the ESG Committee within the Board of Directors, practicing environmental management based on ISO 14001, the international standard certification for environmental management systems. We plan to continue fulfilling our social responsibility through sustainable environmental management.

Environmental Management Strategy and Governance

Environmental Management Strategy and Goals

SK chemicals pursues continuous innovation to provide products and services that reduce environmental impact to stakeholders. Through management rationalization across all sectors, including production processes, we practice reducing energy and water resource usage and greenhouse gas emissions, and further strive to improve environmental performance. Additionally, we aim to minimize the generation of air pollutants and water quality pollutants, increase waste recycling rates through waste recycling policies such as discovering recycling companies and developing recycling technologies. Alongside this, by setting environmental indicators and goals and establishing and operating a management system for chemicals in raw materials, products, and processes, we contribute to a sustainable environment and fulfill corporate social responsibility.

Key Issues in Environmental Management

SK Chemicals' Environmental Management Policy

Climate Change Response	Circular Economy	Biodiversity Conservation	Water Resource Management	Pollutant Management
Establishment of climate strategies and response to climate change based on SBTi energy reduction activities	Expansion of recycle and bio portfolio, securing product safety based on LCA, waste management and recycling expansion	Biodiversity approach and system, biodiversity risk management and mitigation measures	Water resource risk management and monitoring, water resource recycling and wastewater reduction	Reduction of air pollutants, systematic hazardous chemical management and substitution

Environmental Management Strategy and System

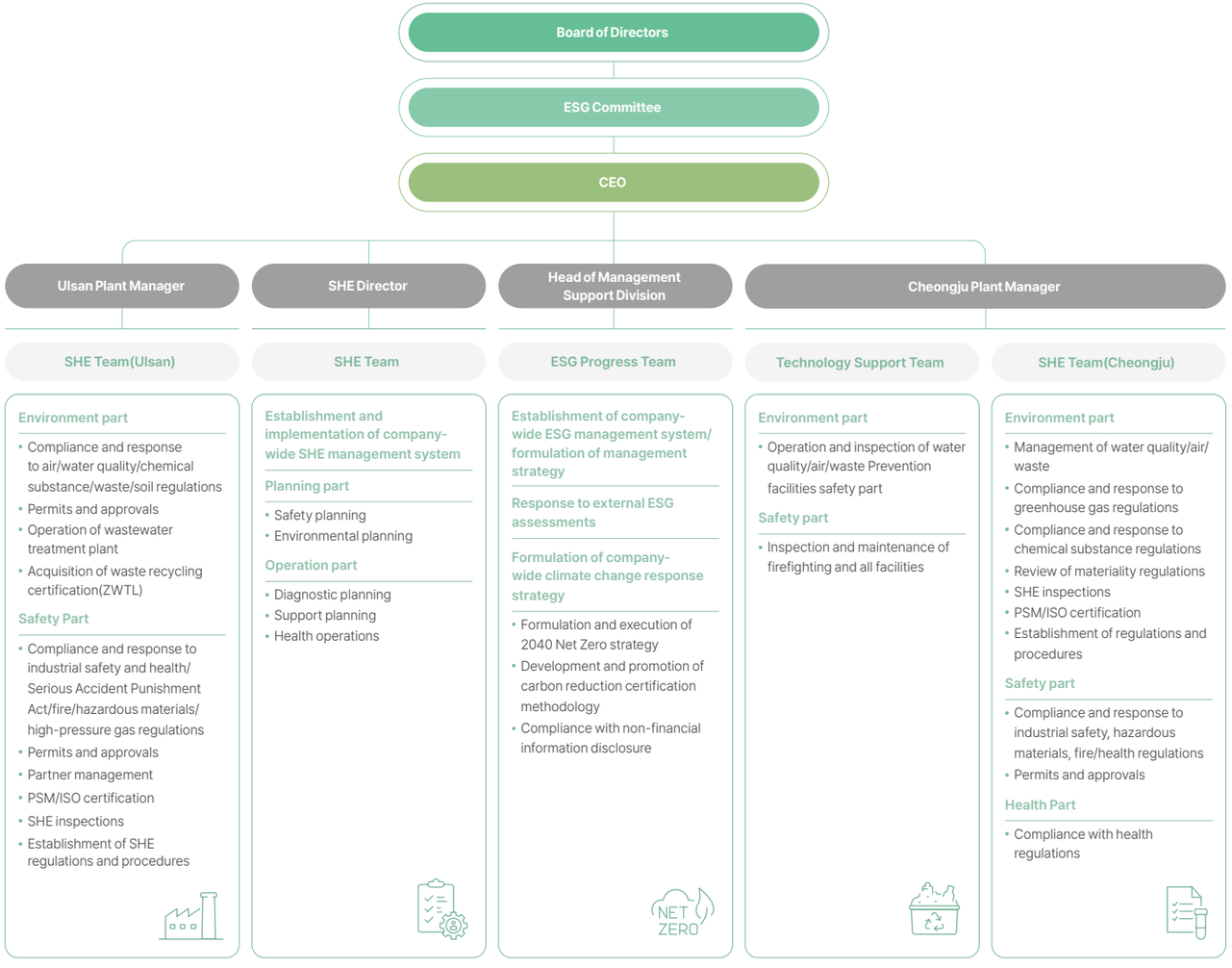
Environmental Management Strategy and Governance

Environmental Management Governance

SK chemicals has organized its Environmental Management organizational system, with the ESG Progress Team systematizing Environmental Management. Within the Board of Directors, the ESG Committee is operated. The ESG Progress Team establishes environmental strategies and goals based on environmental information from each business site to promote systematic Environmental Management related to ESG, reporting and managing these to the dedicated executives and CEO. Additionally, the ESG Committee, a committee within the Board of Directors, reviews detailed implementation plans, promotion strategies, and performance related to Environmental Management once annually in accordance with the ESG Committee regulations. Furthermore, the CEO oversees investments and discovery of environment-related businesses and comprehensively manages strategies and performance related to corporate Environmental Management, including climate, water resources, hazardous substances, and waste. At each business site, eco-friendly elements are considered from the construction phase based on environmental policies, and environmental impact reduction goals are set for each site with efforts made to achieve them. Moving forward, SK chemicals will continue to enhance the management system at the enterprise level to establish and implement business-specific Environmental Management strategies and strengthen capabilities to do so.

2024 ESG Committee Agenda Related to Environmental Management

Date of Meeting	Agenda	Approval Status
2024.04.09	• Report on 2023 materiality assessment results • Analysis of ESG assessment results and derivation of improvement tasks	Report
2024.06.26	• Publication of sustainability report	Report
2024.12.18	• 2024 ESG performance and 2025 plan	Report



Environmental Management Strategy and System

Environmental Management System and Investment

Environmental Management System(ISO 14001) Establishment

Through the Environmental Information Disclosure System, SK chemicals annually discloses its management practices and performance in areas such as raw and subsidiary materials, air and water pollutants, energy, GHGs, safety, and health to government and relevant institutions, demonstrating a voluntary commitment to environmental management and maintaining transparent communication with stakeholders. Since 2020, the company has operated a proprietary SHE IT System to systematically collect and manage environmental and safety data across all business sites.

The Ulsan plant acquired ISO 14001 certification, the international environmental management system standard, in 2005. The Cheongju plant and SK bioscience's Andong site followed in 2022. In 2024, SK multi utility and SK chemicals' overseas business sites also received ISO 14001 certification, bringing 100% of the company's consolidated revenue-generating production sites under certified environmental management. The company conducts regular internal and external audits each year and undergoes recertification every three years to maintain compliance.

Environmental Investment

To minimize environmental impact and generate environmental value, SK chemicals has established a set of environmental investment principles based on ESG elements aligned with the K-Taxonomy. Investment decisions are made accordingly. Investments include eco-friendly process improvements, energy-efficient facility upgrades, solar power installations for renewable energy adoption, and pollution control infrastructure to manage air and water quality at each site.

Environmental Compliance and Sanctions

SK chemicals remains fully committed to environmental compliance. In 2024, the company incurred less than USD 10,000 in fines or penalties related to environmental regulations. Over the past three years, no serious fines or non-monetary penalties have been imposed across any SK chemicals business sites due to environmental management violations, demonstrating the company's strong performance in this area.

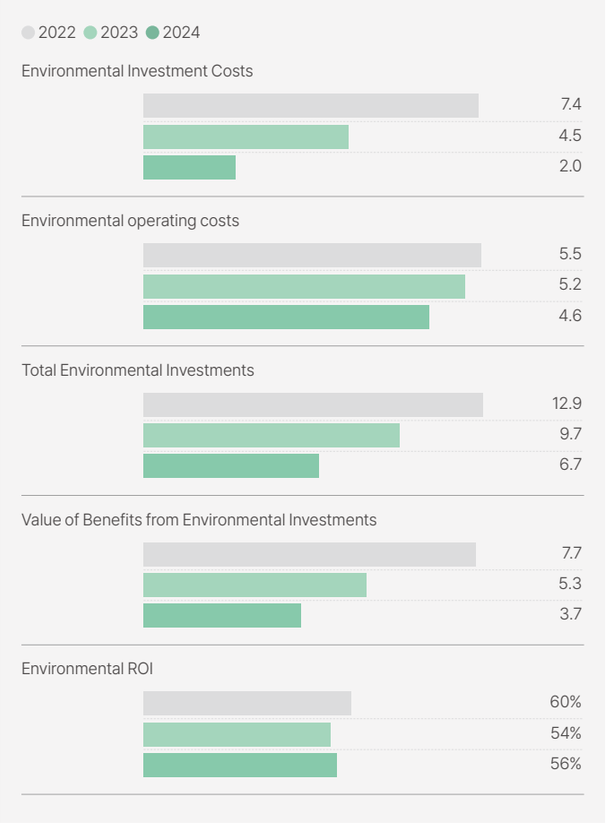
SK chemicals plans to further strengthen its compliance program through robust internal audits and education systems to build and maintain stakeholder trust.

ISO 14001 Certification Status

Category	Business Site	ISO 14001	Sales Revenue Ratio(Consolidated Basis)
SK chemicals	Ulsan Plant[1]	○	59%
	Cheongju Plant	○	17%
SK Bioscience	Andong Plant	○	13%
SK multi utility	Ulsan Plant	○	6%
Shuye-SK chemicals (Shantou) Co., Ltd.	Shantou Plant	○	3%
SK chemicals Yantai Co., Ltd.	Yantai Plant	○	3%
Total Ratio of ISO 14001 Certified Business Sites			100%

1) Ulsan Plant: Includes SK chemicals Daejeong and overseas sales corporations

Status of Environmental Investments[2] (Unit: KRW bil.)



2) Due to changes in the method of aggregating environmental investment costs(excluding investments for product innovation and changes in the criteria for calculating investment/operating costs) Data for 2022 and 2023 have been recalculated.

Environmental Management Strategy and System

Eco-friendly Business Site Operations

Establishment of Eco-friendly Business Sites to reduce environmental impact

SK chemicals considers environmental impact from the early stages of site construction and applies building technologies that reduce energy and water use compared to conventional facilities. Notable examples include the ECO Lab headquarters and L HOUSE, SK bioscience's vaccine center in Andong. Both sites have received sustainable building certifications. ECO Lab was the first residential-type building in Korea to receive the U.S. LEED Platinum certification in 2011. L HOUSE complies with Good Manufacturing Practices(GMP) and was the first pharmaceutical facility globally to receive LEED Gold certification.

Environmental Impact Reduction Technologies Applied to ECO Lab

During the construction of its ECO Lab headquarters, SK chemicals incorporated 101 technologies to reduce energy and resource consumption and minimize environmental impact. Three years after completion, the building's performance was verified, confirming that it uses 44% less energy and 63% less water than comparable office facilities and emits 31% less CO_2.

1 BIPV(Building Integrated Photovoltaic System)

The alternative energy system that generates electricity through solar modules installed on the building envelope to power lighting and heating equipment.

2 Rainwater System

A system that collects rainwater from the building rooftop and land area, as well as dewatering(groundwater), for reuse as gray water and irrigation water, contributing to water resource conservation and flood prevention.

Status of Eco-friendly Business Sites

Architectural Design Applying 101 Eco-friendly Materials and Technologies

Headquarters ECO Lab — SK chemicals

Compared to existing office facilities

Energy Savings 44%

Water Resource Savings 63%

Reduction in Carbon Dioxide Emissions 31%

Energy Efficiency in Office Buildings

Grade 1 Achieved

Eco-friendly Building Certification(2011)

LEED[1] Platinum Rating Achieved

GBCC[2] Grade 1 Achieved

Introduction of 16 Eco-friendly Technologies

L HOUSE(Andong) — SK bioscience

Compared to existing factories

Energy Savings Effect 30%

Eco-friendly Building Certification

LEED[1] Gold Achieved

1) LEED: Leadership in Energy and Environmental Design, U.S. Eco-friendly Building
2) GBCC: Green Building Certification Criteria, Eco-friendly Building Certification System(Domestic)

Biodiversity Conservation

02.

BIODIVERSITY CONSERVATION

With the accelerating global loss of natural capital and biodiversity becoming a risk factor that can impact corporate sustainability, SK chemicals recognizes the importance of biodiversity conservation. Under the approval of the Board of Directors, the company has established relevant policies and is implementing action plans to minimize negative environmental impacts. When selecting business site sites, SK chemicals avoids ecologically sensitive areas, enhances environmental impact assessments, and expands supply chain monitoring to reduce conservation-related risks. The company also promotes ecosystem protection through collaborations with local communities and expert organizations and raises awareness among employees.

Approach and Framework for Biodiversity

Approach and Policy for Biodiversity

SK chemicals recognizes the need for biodiversity preservation as essential to sustainable growth and environmental protection. With Board approval, it established a biodiversity policy that includes forest protection provisions. Business activities are restricted near biodiversity conservation areas, and environmental impact assessments are strictly performed at business sites. The company identifies and responds to ecosystem-related risk factors by monitoring ecosystem changes and reports progress to the ESG Committee and discloses it through the sustainability report.
The company also takes proactive measures to prevent deforestation by carefully reviewing business expansion plans and continuously monitoring and improving forest conservation efforts within the supply chain. Paper and pulp used in products and packaging are being gradually converted to FSC-certified materials.
Furthermore, SK chemicals has adopted the SBTN[1] AR3T[2] framework, which outlines action pathways to avoid and reduce negative impacts on nature, restore and regenerate degraded ecosystems, and enable transformation toward nature-positive outcomes. Going forward, SK chemicals will continue efforts to achieve a nature-positive state and is considering incorporating targets such as achieving no net loss of biodiversity and ending deforestation into future biodiversity policy directions.

Biodiversity Risk Management System

SK chemicals integrates biodiversity-related risks into its enterprise risk management framework. Through identification, analysis, and evaluation processes, the company detects key biodiversity risks across its business and implements response strategies to address and mitigate them. Performance is regularly monitored and reported to the ESG Committee.

Go to company-wide risk management process

Stakeholder Engagement-Based Biodiversity Conservation

SK chemicals collaborates with internal and external stakeholders to promote biodiversity. Employee training programs raise awareness, and environmental preservation activities further promote understanding. The company is expanding biodiversity-focused volunteer initiatives such as stream cleanups near business sites.
To support biodiversity protection more broadly, SK chemicals actively communicates with local communities and stakeholders and explores opportunities to support eco-friendly businesses by engaging with social enterprises.

Key Details of the Biodiversity Policy

Biodiversity Policy

- Objectives of biodiversity policy and goals to achieve 2030 Nature Positive
- Scope of policy application including all domestic and international business sites and stakeholders such as supply chains
- Support for global agreements and goals like UN SDGs and International Biodiversity Conventions
- Conducting biodiversity impact assessments and compliance with relevant laws for all business sites
- Prevention of rights infringement of indigenous peoples, local communities, and stakeholders near business sites
- Declaration of goals related to deforestation prevention
- Active support and oversight by the board for the execution of biodiversity policy
- Establishment and execution of biodiversity risk response strategies and roles of operational organizations
- Active communication with local communities and stakeholders for improving biodiversity awareness
- Concrete action plans for biodiversity improvement

1) Science Based Target for Nature : A global initiative that supports companies in setting science-based targets to conserve and restore natural capital.
2) The biodiversity conservation activity framework proposed by SBTN encourages avoiding and reducing activities that harm biodiversity, regenerating and restoring ecosystems, and transitioning to a society that can coexist with healthy ecosystems.

Biodiversity Conservation

Biodiversity Risk Assessment

Biodiversity Risk Assessment Process

As awareness of the importance of the natural environment and biodiversity increases, SK chemicals has conducted an internal evaluation of its dependency on and impact to natural capital at seven key business sites, including its Pangyo headquarters, based on TNFD's LEAP approach. Using ENCORE[1], the company assessed how ecosystem services support each business sector and the extent of its impacts on nature. In addition, to reflect spatial characteristics, SK chemicals applied WWF's Biodiversity Risk Filter(BRF)[2] to evaluate both physical and Reputational risks at each site. The company plans to expand the scope of its assessment to upstream and downstream operations in the future.

Business Sites Subject to Biodiversity Risk Assessment

Analysis of Business Site Information

Corporation Name	Business Sites	Industry Sector	Business Site Area
SK chemicals (Only)	Pangyo Headquarters	Headquaters	6,231m²
	Ulsan Plant	Chemicals	389,933m²
	Cheongju Plant	Pharmaceuticals & Bio	64,674m²
Shuye-SK chemicals (Shantou) Co., Ltd.	Shantou Plant	Chemicals	42,164m²
SK chemicals Yantai Co., Ltd.	Yantai Plant	Chemicals	38,390m²
SK multi utility	Ulsan Plant	Power Generation	37,966m²
SK bioscience	Andong Plant	Pharmaceuticals & Bio	62,626m²

Conduct Internal Evaluation using LEAP Approach

Locate — Identify Points of Interaction with Nature
- Identify business model and value chain scope
- Dependency and impact screening confirm points of interaction with nature(location)
- Identify environmentally vulnerable areas

Evaluate — Dependency/Impact Assessment
- Identify environmental assets, ecosystem services, and impact drivers
- Identify dependency and impact
- Quantify dependency and impact
- Evaluate significance of impact

Assess — Risk/Opportunity Assessment
- Identify risks and opportunities
- Risk mitigation, risk/opportunity management
- Derive and prioritize risks and opportunities
- Evaluate significance of risks and opportunities

Prepare — Response and Disclosure
- Strategy and resource allocation planning
- Goal setting and performance management
- Reporting
- Disclosure

Biodiversity Management Process

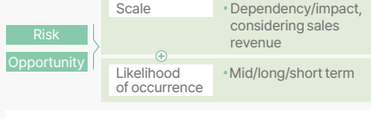
Locate / Evaluate

01. Define Scope and Analyze Dependency and Impact
- Define scope
  - Seven business sites including Pangyo, Ulsan, Cheongju
- Screening of natural capital dependency and impact, analysis of impact levels and key items
- Confirm contact with protected areas and protected species

ENCORE, WWF BRF, IBAT

Assess

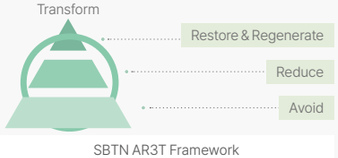
02. Identification and Assessment of Biodiversity Risks and Opportunities
- Derive biodiversity risk and opportunity pool
- Analyze risk and opportunity impacts
  - Evaluate scale and likelihood based on natural capital dependency/impact analysis results
- Derive key risks and opportunities



ENCORE, WWF BRF

Prepare

03. Establishment and Implementation of Biodiversity Risk Response Strategies
- Establishment of key risk/opportunity response strategies
- Development and implementation of detailed tasks based on AR3T
- Monitoring and reporting of implementation performance



SBTN AR3T Framework

1) A natural capital dependency and impact analysis tool jointly developed by the International Sustainability Standards Board(ISSB), UN Environment Programme Finance Initiative(UNEP FI), and Natural Capital Finance Alliance(NCFA), which evaluates the extent of industrial activities' dependency on and impact to natural capital on a five-level scale.
2) A biodiversity risk assessment tool developed by the World Wide Fund for Nature(WWF) that spatially evaluates the physical and reputational biodiversity-related risks in the regions where a company's business sites are situated.

Biodiversity Conservation

Natural Capital Dependency and Impact Analysis

ENCORE-Based Analysis

Using the ISIC industrial classification system, SK chemicals defined its business activities as plastic manufacturing, pharmaceuticals, and steam production and supply. With the ENCORE tool, the company analyzed 25 ecosystem service dependencies and 12 ecosystem impact factors by business segment.

ENCORE Analysis Result

- SK chemicals Green Chemicals Biz.	No significant dependence on ecosystem services has been identified in SK chemicals' plastic manufacturing business. However, due to the inherent nature of the industry, which requires the operation of large-scale plants, certain environmental impacts have been recognized. These include noise and light pollution generated during the production process, soil contamination caused by chemical discharges and waste landfilling, and water pollution resulting from the release of hazardous substances. These factors have been identified as the primary sources of ecological pressure.
- SK chemicals Pharma Biz. - SK bioscience	In the pharmaceutical business, the highest level of dependency was identified in relation to water purification services used for the treatment of wastewater(chemical substances) generated during the drug manufacturing process, as well as on educational, scientific, and research services of natural capital utilized for new drug development. In addition, a high degree of dependency was also observed on the use of genetic materials for pharmaceutical innovation. Conversely, no significant factors were identified that indicate a high level of adverse impact on natural capital.
- SK multi utility	In the steam production and supply business, a high level of dependency on water supply services has been identified as essential for stable steam generation. Conversely, the most significant environmental impacts on ecosystems were found to result from the high volume of greenhouse gas emissions and the release of air pollutants associated with extensive energy consumption throughout the production process.

1) ENCORE's business segments are classified in accordance with the International Standard Industrial Classification(ISIC)

Category		Business Division[1]		
		Plastic Manufacturing	Pharmaceuticals	Steam Production and Supply
Dependency	Genetic Materials	-	High	-
	Water resource supply	Medium	High	High
	Solid waste purification	Low	Low	Low
	Soil and sediment retention	Medium	Medium	Very low
	Water quality purification	Medium	Very high	Medium
	Air and ecosystem pollution purification	Low	Low	Very low
	Air purification	Very low	Very low	Very low
	Flood control	Medium	Medium	Very low
	Climate regulation	Very low	Very low	Very low
	Noise mitigation	Very low	-	Very low
	Sensory impact mitigation	Very low	-	-
	Microclimate regulation	Low	Low	Low
	Storm mitigation	Medium	Medium	Very low
	Water flow regulation	Medium	High	Medium
	Rainfall pattern regulation	Medium	-	Medium
	Education, science, research services	-	Very high	-
Impact	Disturbance(noise, light)	Very high	Medium	-
	Freshwater use area	-	-	Very low
	Greenhouse gas emissions	Medium	Medium	Very high
	Air pollutant emissions	Medium	Medium	Very high
	Soil and water pollutant emissions	Very high	Medium	Very low
	Solid waste generation and emission	Medium	Medium	High
	Land use area	Low	Low	-
	Water resource usage	High	Medium	Medium

Biodiversity Conservation

BRF-Based Analysis

SK chemicals used the WWF BRF to analyze physical and reputational risks, taking into account site location, business activity, and business importance. Physical risks were evaluated across five categories: provisioning, supporting, regulating, cultural services, and biodiversity pressures. Reputational risks were assessed across three categories: environmental factors, socioeconomic factors, and others.

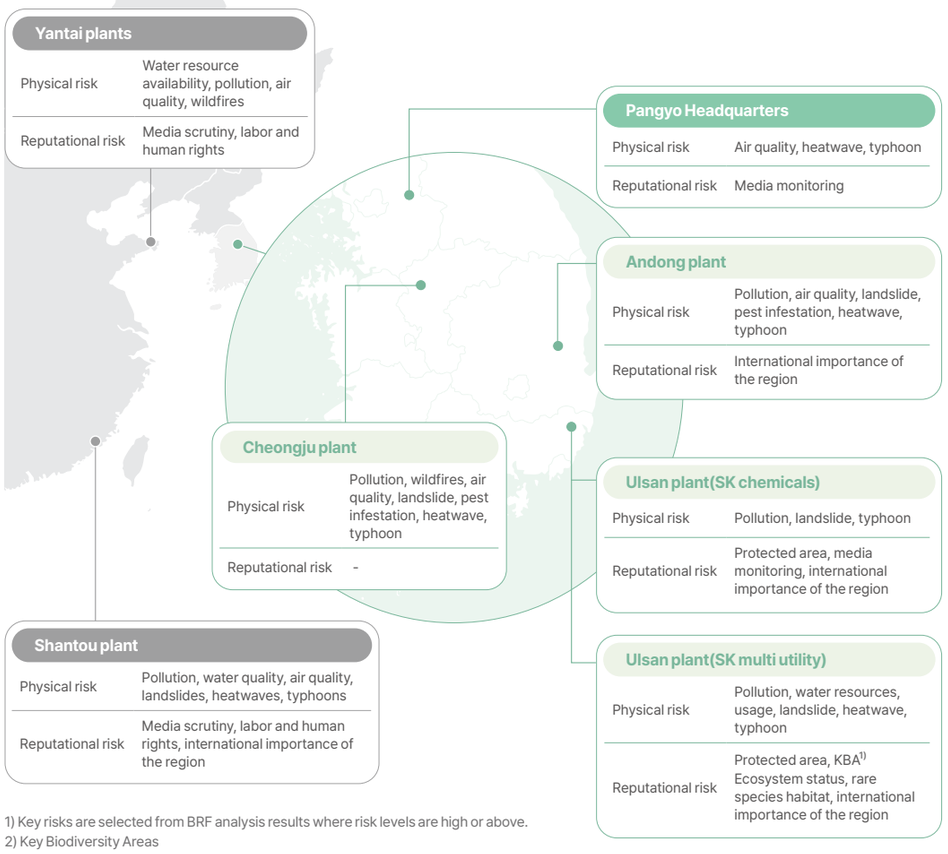
WWF BRF Analysis Result

Category			Business Location						
			Pangyo	Ulsan	Cheognju	Shantou	Yantai	Ulsan(MU)	Andong
Phsyical risk	Supply services	- Water resource availability, forest productivity - Wildlife availability	1.0	3.2	3.7	2.9	3.2	3.5	3.1
	Foundation formation	- Water quality, air quality, soil/ecosystem status -Pollination	3.0	2.8	2.8	3.5	2.5	2.3	3.3
	Mitigation functions	- Landslides, wildfires, pests and diseases - Heatwaves, typhoons	3.3	3.4	3.5	3.5	3.4	3.5	3.5
	Biodiversity pressure	- Forest canopy loss - Pollution	2.3	2.6	3.0	3.0	3.0	3.7	2.6
Reputational risk	Environmental factors	- Protected Area, KBA[2)] - Ecosystem status, rare species habitat	2.0	3.0	2.1	2.1	2.0	4.0	2.3
	Socioeconomic factors	- Indigenous protection, labor and human rights - Financial inequality - Media monitoring, international importance of the region – Political situation, risk response level	2.0	2.3	2.6	3.1	3.1	2.3	2.3
	Other reputation factors	- Water resource availability, forest productivity - Wildlife availability - Water quality, air quality, soil/ecosystem status - Pollination	2.1	3.6	2.3	3.8	3.0	3.2	3.1

: Very low : Low : Medium : High : Very High

According to the WWF BRF results, none of the business sites were found to be at "Very High" risk levels. However, under specific indicators, pollution risks were identified at all six manufacturing sites(excluding Pangyo HQ), and water availability risk was relatively high at the Yantai site. From a reputational standpoint, the Shantou and Yantai plants in China showed higher risks related to "media scrutiny," while the multi utility Ulsan site showed elevated risk in the "protected area" category. Although the two Ulsan sites are located in close proximity, slight differences in industrial activity contributed to different risk outcomes.

Major Risks by Business Sites[2)]



1) Key risks are selected from BRF analysis results where risk levels are high or above.
2) Key Biodiversity Areas

Biodiversity Conservation

Identification of Key Biodiversity Risks and Opportunities

Following TNFD recommendations and peer benchmarking, SK chemicals developed a biodiversity risk and opportunity pool consisting of 16 risk factors and 7 opportunity areas. Each was evaluated using ENCORE and WWF BRF results, revenue by sector, interviews with stakeholders, and media analysis. Financial impact was assessed by quantifying severity and likelihood(1–5 scale) and calculating a risk threshold. Based on this, 5 key risks and 3 key opportunities were identified.

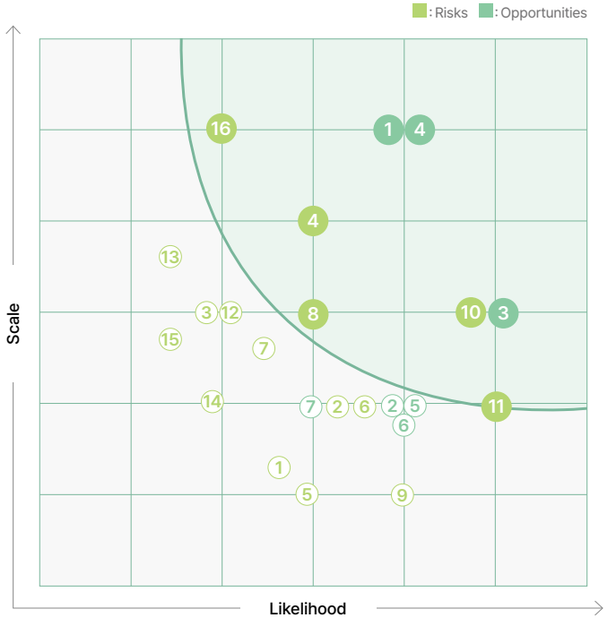
: Key Risk : Key Opportunity

Category			NO.	Risk and Opportunities	Impact	Likelihood
Risks	Physical risk	Acute	R1	Damage to business sites caused by disasters such as typhoons, landslides, and wildfires	1.3	2.8
		Chronic	R2	Long-term changes in climate patterns	2.0	3.5
			R3	Reduction of genetic resources due to habitat destruction	3.0	2.0
			R4	Genetic resource decline due to habitat destruction	4.0	3.0
			R5	Increase in pests and diseases due to climate change	1.0	3.0
	Transition risk	Policy	R6	Strengthening of regulations related to environmental pollution	2.0	3.7
			R7	Strengthening of ecosystem-related regulations	2.5	2.5
		Market	R8	Increased volatility in the supply of natural raw materials	3.0	3.0
			R9	Market demand changes due to increased preference for eco-friendly products	1.0	4.0
		Technology	R10	Process transition to reduce ecological footprint	3.0	5.0
			R11	Transition to products that mitigate environmental burden	2.0	5.0
		Reputation	R12	Corporate reputation decline due to environmental pollution	3.0	2.0
			R13	Corporate reputation decline due to ecosystem damage	3.5	1.5
			R14	Corporate reputation decline due to human rights issues	2.0	2.0
		Responsibility	R15	Violation of environmental laws	2.6	1.6
			R16	Occurrence of legal disputes related to environment	5.0	2.0
Opportunities	Business performance	Market	O1	Expansion of eco-friendly material supply volume	5.0	4.0
		Capital flow and procurement	O2	Diversification of capital procurement channels such as eco-friendly funds and bonds	3.0	4.0
		Resource efficiency	O3	Improvement of resource efficiency	4.0	5.0
		Products and services	O4	Increased interest in eco-friendly products	5.0	4.0
		Reputation value	O5	Brand image enhancement through nature conservation activities	3.0	4.0
	Sustainability performance	Sustainable use of natural capital	O6	Expansion of sustainable use through improved recycling rates of raw materials and products	3.0	4.0
		Ecosystem protection, restoration, and regeneration	O7	Enhancement of biodiversity through ecosystem monitoring and protection activities around business sites	2.0	3.0

Biodiversity Conservation

Response to Biodiversity Risks and Opportunities

SK chemicals has identified 5 key risks and 3 key opportunities through quantitative assessment. We analyzed the potential impacts that may arise when each key risk and opportunity materializes, and established response strategies to mitigate negative impacts and expand positive impacts.



Category		Key Risks and Opportunities	Potential Impact	Time Horizon[1] Short-term	Mid-term	Long-term	Response Strategy/Status
Risks	R4	Reduction of genetic resources due to habitat destruction	• Delays in new drug development and decline in competitiveness due to genetic resource depletion		●	●	• Participation in biodiversity initiatives and conservation activities • Monitoring of resource depletion risks for important natural raw materials
	R8	Increased volatility in supply of natural raw materials	• Increase in purchasing costs due to factors such as a decrease in resource production and rising fossil fuel prices Financial Impact Analysis Case Study Category: Impact pathway — Contents: Decrease in production of plant-derived industrial starch due to changes in the eco-system, resulting in an increase in raw material procurement costs Financial impact for the current year: Approx. KRW 24 billion Expected financial impact(FY2030): Estimated increase of approx. 25% compared to 2024		●	●	• Monitoring key raw materials and diversifying business to distribute and mitigate potential risks to the supply of raw materials • Fundamentally addressing raw material procurement risks through long-term diversification of manufacturing processes and development of alternative raw materials • Expanding the resource circularity system for waste plastics to shift from virgin petroleum-based raw materials to recycled plastics
	R10	Process transition to reduce ecological footprint	• Investment costs incurred due to conversion to low-emission processes Financial Impact Analysis Case Study Category: Impact pathway — Contents: Decrease in cash flow from investing activities due to facility investments to reduce ecological footprint Financial impact for the current year: Approx. KRW 2.0 billion	●	●	●	• Introduction of water quality and air pollution reduction facilities to comply with stricter legal emission standards • Process research to increase production efficiency and reduce pollutant emissions • Reduction of GHG emissions to achieve Net Zero by 2040 • Continuous discovery and implementation of waste recycling projects- Ulsan Factory ZWTL Certification Status: Silver(94%) in 2022, Gold(96%) in 2023, Gold(97%) in 2024
	R11	Transition to products with reduced environmental burden	• Conversion costs incurred, such as research and development costs, for reducing the environmental impact of products	●	●	●	• Establishment of various partnership models with local governments and waste treatment companies to secure a stable supply of raw materials for the recycling business and reduce procurement costs
	R16	Occurrence of environmental legal disputes	• Costs incurred due to legal disputes related to the environment and damage to reputation				• Establish management targets below legal standards based on monitoring of environmental laws and regulations, reflect them in relevant executive KPIs, and link them to performance/compensation • Conduct preliminary environmental impact assessments for new construction and expansion to prevent risks
Oppor-tunities	O1	Expansion of eco-friendly material supply volume	• Reduction in production costs due to increased supply of eco-friendly materials	●	●	●	• Establish a closed loop solution that recycles waste from global brand owners into raw materials for remanufacturing to secure a stable supply of raw materials and sales channels
	O3	Improvement of resource efficiency	• Reduction in operating costs due to improved resource efficiency	●	●	●	• Reflect energy saving tasks, such as optimization of raw material usage, in the KPIs of the executive in charge, monitor the implementation effects, and link them to assessment and compensation
	O4	Increased interest in eco-friendly products	• Increase in sales of products with a lower ecological footprint	●	●	●	• Maintain the ratio of research investments related to clean technology(recycling, bio-based materials) at 50% of the total until 2028 • Implement LCA for all products in the Green Chemicals business division- Implement LCA for 99% of products based on sales in 2024

1) Short-term: within 1 year, Mid-term: 1 to 5 years, Long-term: beyond 5 years.

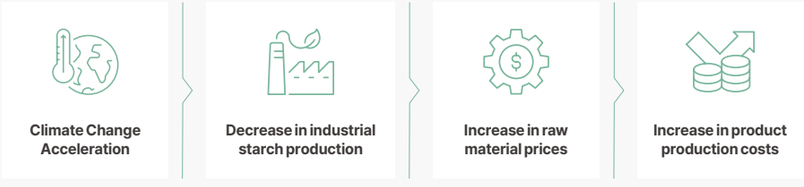
Biodiversity Conservation

Case Study of Financial Impact Analysis on Biodiversity Risks

Case 1. Financial Impact from Increased Volatility in Raw Material Supply

Impact Pathway

SK chemicals' key products ECOZEN and ECOTRION are made from bio-based raw materials derived from industrial starch. However, intensified climate change may lead to an increase in crop diseases and a decline in productivity of source crops, which would increase the cost of bio-based feedstocks and ultimately raise the cost of raw materials for producing ECOZEN and ECOTRION.



Financial Impact

Research shows that the probability of a 5%, 10%, and 15% decline in crop yields by 2030 is estimated at 30%, 19%, and 14%, respectively[1]. Based on this, the expected average yield reduction by 2030 is estimated at approximately 6%. Referring to price elasticity studies, a demand elasticity of −0.102[2] and supply elasticity of 0.11[3] were applied, forecasting that the crop price will increase by about 30% by 2030. Assuming no other cost variation and that starch accounts for 40% of total raw material costs in bio-based production, product manufacturing costs are projected to rise by approximately 25%.

1) McKinsey Global Institute, Will the world's breadbasket become less reliable, 2020.
2) USDA, Commodity and Food Elasticities, 2025.
3) Bruce Babcock et al, Estimation of Supply Elasticities for Non-Exchange Traded Commodities, 2021.

Case 2. Financial Impact of Process Transition to Reduce Ecological Footprint

Impact Pathway

SK chemicals operates in industries such as chemicals, pharmaceuticals, and steam production, which are prone to generating pollutants. However, demands to reduce environmental harm are steadily increasing. In response to this external pressure, the company anticipates ongoing transition costs, including investments in improving pollutant-emitting processes.

Financial Impact

To comply with environmental regulations and protect ecosystems, SK chemicals has been making investments to reduce pollutant emissions in its production processes. From 2022 to 2024, approximately KRW 13 billion was invested in pollutant reduction and monitoring equipment across its domestic business sites. As environmental pressure continues to intensify, related investments are expected to exceed current levels going forward.

Execution Year	Major Investment Details
FY2022	· Response to TOC conversion in discharged water · Improvement of CHDM air emission facilities
FY2023	· Installation of Slurry Mix Tank · Conversion of DMT boiler to hydrogen fuel
FY2024	· Installation of THC emission reduction facilities for solid brake · Supplementation of cooling water pump facilities

Biodiversity Conservation

Biodiversity Target Implementation Strategy

SK chemicals has established an implementation strategy aligned with the AR3T framework of SBTN, aiming to avoid and reduce activities that may cause adverse impacts on nature, while also pursuing restoration and regeneration of degraded ecosystems and facilitating green transformation. The company is committed to ensuring that natural capital ultimately achieves a nature positive state.

Key Biodiversity Risks	SK chemicals' Major Natural Capital Risk Improvement Activities(Based on AR3T Framework)	
Reduction of genetic resources due to habitat destruction	Avoid	Prevent ecosystem damage through biodiversity impact review during investment screening process - Establish and monitor implementation results of Net Loss Zero strategies for natural capital when located in biodiversity conservation areas
Increased volatility in supply of natural raw materials	Avoid	Prevent ecosystem damage by recovering/managing process by-products such as off-gas generated during production processes - Recycle methanol generated in CHDM production process to prevent discharge into coastal ecosystems via wastewater, etc.
Process transformation to reduce ecological footprint	Reduce	Reduce greenhouse gas emissions - Solar power self-generation, fuel switching to lower carbon emissions such as hydrogen, and energy use reduction through process operation optimization(2024 target: 18TJ), etc.
Transition to environmentally burden-reducing products	Reduce	Reduce waste treatment volume generated during production processes - Ulsan Plant ZWTL Gold(waste recycling rate 97%), expand external sales through development of recycling uses for process by-products, etc.
Occurrence of environment-related legal disputes	Restore & Regenerate	Restore ecosystem protection areas near business sites - Remove invasive plants and conduct purification activities at Pangyo Unjungcheon Stream(6 times), Ulsan Plant Yeocheon Stream purification(7 times), Shantou Plant Laoer Beach cleanup(1 time)
	Restore & Regenerate	Monitor natural damage through establishment of continuous pollutant emission measurement systems and implement ecosystem restoration measures upon damage identification - Establish continuous measurement systems for air and water quality pollution emission data at all production business sites
	Transform	Expand sales proportion of products produced from waste plastic and bio-based raw materials - Secure depolymerization plant producing recycled raw materials in Shantou, establish recycled PET production facilities, and expand research on applications of depolymerized products, etc.
	Transform	Support sustainable forestry through purchase of FSC(Forest Stewardship Council) certified pulp - Prioritize purchasing FSC-certified pulp for bio product packaging materials to minimize biodiversity impact, etc.

Biodiversity Conservation

Biodiversity Conservation and Protection Activities

Improving Water Quality of Local River and Removing Invasive Plants

SK chemicals is conducting eco-friendly volunteer activities to improve water quality in collaboration with local communities. In 2024, all employees at the headquarters participated in six volunteer activities, which included making EM(Effective Microorganisms) clay balls and removing invasive plants from the Woonjungcheon stream area near the Pangyo office. Participants contributed to water purification by creating clay balls containing beneficial microorganisms and releasing them into the stream. To monitor changes in water quality, the company signed an agreement with the Korea Green Foundation and continues to monitor pollution levels in Woonjungcheon. As a result of releasing 11,000 clay balls in 2024, water quality improved from Grade 3(BOD 4.2 mg/L) to Grade 2(BOD 2.45 mg/L). In addition, SK chemicals has conducted invasive species management to identify and remove non-native plant species in the area. Invasive plants such as Humulus japonicus, Sicyos angulatus, Ambrosia artemisiifolia, and Lactuca scariola were removed to protect native species such as Kolkwitzia amabilis, Rubus coreanus, Rhododendron, and Spiraea. In 2024, approximately 220 bags(50L each) of Humulus japonicus were removed, creating improved sunlight access and soil space for native species including Agastache rugosa, Calystegia, and Viola. The company plans to continue biodiversity protection efforts in the Woonjungcheon area throughout 2025.

Upstream and Downstream Biodiversity Risk Mitigation Measures

SK chemicals identifies and addresses potential biodiversity risks across the entire value chain, extending beyond operational sites. As the demand for biodiversity risk management throughout the supply chain increases, the company will enhance biodiversity risk analysis using tools such as ENCORE and WWF BRF and integrate these insights with operational site-level biodiversity risk management going forward.

	Upstream(Raw Material Production and Processing)	Downstream(Disposal and Recycling)
Key business locations and regions	• Major chemical raw material suppliers: Domestic large enterprises including Hanwha Impact • Major vaccine raw material suppliers: European companies including Lonza	• All regions where production occurs, and waste is generated after customer use
Risks	• Most raw materials for SK chemicals' Green Chemicals business are produced based on fossil fuels; therefore, ecological destruction and environmental impacts during crude oil extraction and transportation are expected to be significant. Detailed tracking and review of environmental aspects for secondary suppliers downstream are necessary. • Raw materials for Life Science business vaccine products are supplied through European manufacturers, with relatively lower direct ecological dependency compared to chemical products.	• As plastic pollution becomes a global issue, various countries are strengthening regulations. In Korea, the use of certain single-use plastic products has been banned, and the deposit system for disposable plastics is being expanded. The European Union has imposed a complete ban on plastic landfilling since 2020. • If unused pharmaceuticals are not properly disposed of and are instead released into the environment through general waste or sewage systems, they can have severe impacts on ecosystems, including water and soil contamination. In response, Korea has strengthened its management by revising regulations related to the collection and disposal of pharmaceuticals.
Mitigation measures	• We require primary suppliers such as PTA and MEG manufacturers to guarantee responsible production methods. • ESG screening including biodiversity-related criteria has been conducted for all suppliers. • An in-depth assessment of natural capital conservation efforts was conducted for 37 key suppliers, with third-party verification of the results. • For bio-product packaging materials, we prioritize purchasing pulp certified by FSC to minimize biodiversity impact.	• Contributed to circular ecnomoy through recycling by developing and expanding the sales share of ECOTRIA, a product made with recycled materials, and ECOTRIA Claro, a recyclable product. • Established SK Shantou to secure commercial production facilities for products using circular recycled raw materials. • Built a closed-loop system that recycles waste generated during production and post-consumer waste back into raw materials for re-manufacturing.

EM Soil Ball Production Activities to Purify Local River

Invasive Plant Removal Activities

Water Resource Management

03.

WATER RESOURCE MANAGEMENT

With water scarcity intensifying globally, the importance of effective water management is growing. In the chemical industry, water is a critical resource for production processes and requires efficient management. SK chemicals recognizes this industrial characteristic and has established and implemented a structured water management strategy. Through continuous technological innovation, the company strives to use and conserve water efficiently, contributing to environmental protection and sustainable development through cooperation with local communities.

Water Risk Management System and Monitoring

Water Management System and Performance Linkage

SK chemicals operates a real-time monitoring system that tracks water usage, wastewater generation, and pollutant concentrations to strengthen water resource management. This enables executives to manage key indicators directly, with regular reporting to the ESG Committee. Since 2019, water usage and water pollutant concentrations have been included in the KPIs for executives and team leaders, ensuring that water conservation efforts are systematically implemented. In 2024, the company set a goal to reduce water usage at the Ulsan site by 1.5% compared to the previous year and reflected this in the relevant KPIs. Performance evaluations and incentives are linked to KPI achievement, embedding water management performance into the reward system. SK chemicals also ensures that its internal water policy aligns with external regulations through regular reviews and has established a process for executive-level evaluation. The company has complied fully with all water-related regulations and has had no violations to date.

Stakeholder Engagement and Initiative Support

SK chemicals complies with the UN SDGs and their implementation processes and fulfills its obligations to disclose key water management indicators such as water intake, reuse rate, and pollutant concentrations. The company also participates in CDP Water, through which it manages water risks in a structured manner and communicates transparently with investors to ensure appropriate reflection of water risk management in investment decisions.

Water Risk Management and Monitoring

To ensure stable and systematic product manufacturing and operations, SK chemicals prioritizes water risk management across all sites. Each site's operations team monitors water intake monthly. The Ulsan plant receives raw water from the Nakdong River via the Korea Water Resources Corporation and oversees water intake for the nearby petrochemical complex, including partner companies. The Cheongju plant, located in the Seocheongju Industrial Complex, receives water from the Daecheong Lake via the Cheongju Waterworks Division. Recognizing the mid- to long-term risk posed by water stress in the chemical industry, SK chemicals regularly conducts comprehensive water risk assessments. These evaluations address future changes in available water volume, potential degradation of water quality, and region-specific regulatory tightening to ensure long-term water resource stability.

Water Risk Analysis

SK chemicals utilizes the Water Risk Atlas developed by the World Resources Institute(WRI) to assess the potential exposure to water-related risks at its major domestic sites and to analyze water stress levels for each location. WRI's Aqueduct 4.0 reflects the impacts of climate change on water availability, increasing demand, drought frequency, and pollution to quantify and visualize water risk. Based on this platform, SK chemicals evaluates each site's physical water stress and water quality risk according to geographic coordinates and regional characteristics. For physical water stress, the company used WRI's "Optimistic Scenario" to assess 2030 water risks. This scenario assumes successful GHG reduction efforts and sustainable development, reflecting positively on the company's water management strategies.

Water Stress and Water Quality Risk Assessment Results

In the Cheongju region, the water stress index rose from "Medium-High" in 2023 to "High" in 2024 but is projected to return to "Medium-High" by 2030. In Ulsan and Andong, the water stress index is expected to remain at "Medium-High" levels through 2024 and 2030. Water quality risks in all three regions—Cheongju, Ulsan, and Andong—are assessed at "Low-Medium" levels, indicating relatively stable water conditions.

Water Resource Management

Water Resource Management and Risk Response Activities

SK chemicals establishes response strategies and operates a management system to secure water resources, use them efficiently, and minimize environmental impact, taking into account water usage at each business site and the water risk levels in the surrounding regions.

Water Resource Securing and Conservation Activities

Given the finite nature of water resources, it is essential to reduce consumption and enhance recycling to decrease dependence on water. SK chemicals conducts efficiency assessments to analyze water usage patterns and determine optimal usage levels by process in order to eliminate waste. The company has also established a monitoring system across all business sites to track water recycling and uses flowmeters to monitor water intake around the clock. Ulsan Plant, which uses the highest volume of water among domestic sites, is promoting various improvement initiatives to enhance efficiency and expand reuse through process enhancements. As part of these efforts, the plant recycles concentrated water from the RO membrane of the PDH ultrapure water system for firefighting and has modified an idle RO unit for use in producing ultrapure water. It also recovers and reuses condensate generated from the steam heat exchanger of the ultrapure system. Based on ultrapure water production, the recycling volume is approximately 1,080 tons per day. Efforts also continue to raise the recycling rate of cooling water by recovering and reusing it within each production process. Each line operates a closed-loop circulation system with pumps and cooling towers. Only water that has come into contact with products and is unsuitable for reuse is treated and discharged. Cooling water usage is closely monitored to identify additional opportunities for reuse and ensure ongoing optimization. Although Cheongju and Yantai plants were identified as high water stress areas in 2024, each accounts for only about 1% of SK chemicals' total water intake. Nevertheless, Cheongju Plant mitigates its water stress risk by storing 4 to 5 times its daily water consumption in on-site reservoirs, preparing for potential water shortages. Annual usage plans are developed based on product-specific water intensity and are monitored accordingly. At Yantai Plant, where the risk is classified as extremely high, the company has identified water-intensive processes and implemented recycling initiatives to reduce usage by 20%. Even at sites with relatively low water consumption, SK chemicals continuously monitors local water risks and implements comprehensive water management systems to improve efficiency, explore reuse opportunities, and maintain water quality.

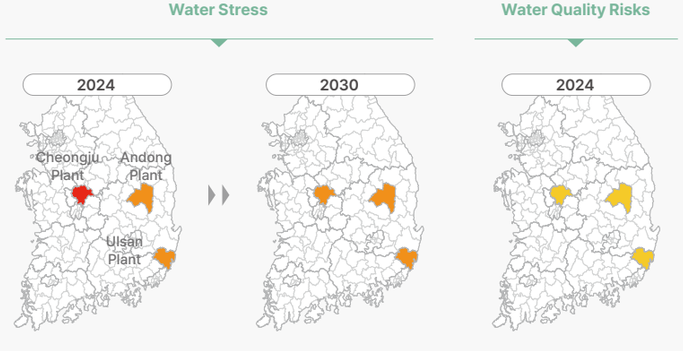
Water Stress

Low (<10%)	Low to medium (10-20%)	Medium to high (20-40%)	High (40-80%)	Extremely High (>80%)

Water Quality Risks

Low (0-1)	Low to medium (1-2)	Medium to high (2-3)	High (3-4)	Extremely High (4-5)

Category	Business Location Information			Water Stress		Water Quality Risks
Business Site	Address	Latitude	Longitude	2024 Current	Optimistic Scenario(2030)	
Cheongju Plant	Cheongju, Chungcheongbuk-do, Republic of Korea	36.6	127.5	High(40-80%)	Medium-high(20-40%)	Low-Medium(1-2)
Ulsan Plant	Ulsan, South Korea	35.5	129.3	Medium-high (20-40%)	Medium-high (20-40%)	Low-Medium (1-2)
Andong Plant	Andong, Gyeongsangbuk-do, South Korea	36.6	128.7	Medium-high (20-40%)	Medium-high (20-40%)	Low-Medium (1-2)
Yantai Plant	Yantai, Shandong Province, China	37.5	121.4	Extremely High (>80%)	Extremely High (>80%)	Medium-High (2-3)
Shantou Plant	Shantou, Guangdong Province, China	23.5	116.8	Medium-high (20-40%)	Medium-high (20-40%)	Medium-High (2-3)



Water Resource Management

Effluent Reduction and Water Pollutant Control

SK chemicals works closely with local governments and public institutions to reduce and manage wastewater. Depending on site conditions, wastewater is either treated in-house or outsourced for processing. Headquarters(Seongnam) discharges to the Pangyo Water Reclamation Center, Ulsan Plant conducts primary treatment in its on-site facility before discharging to the ocean, and Cheongju Plant transfers wastewater to the Cheongju Industrial Complex's public treatment facility. All discharge volumes are monitored in real time using flowmeters. Ulsan Plant operates its own wastewater treatment plant and manages key pollutants such as TOC, BOD, and SS that may impact groundwater or the marine environment. Since the treated water is discharged directly into the East Sea, the plant has set internal quality standards and goals more stringent than legal requirements. In 2023, major pollutants were managed to below 50% of legal discharge limits(80% for TOC). These target were again met in 2024, resulting in strong water quality performance. Ulsan's treatment plant is equipped with a TMS(Tele Monitoring System) managed by the Ministry of Environment, allowing real-time monitoring of effluent quality. Regular inspections are also conducted to ensure stable operation. Following the 2022 shift in the regulatory index from COD to TOC, the plant additionally installed activated carbon filtration systems to further enhance water quality control.

At Cheongju Plant, wastewater is initially treated using an activated sludge process and then transferred to the Cheongju Industrial Complex wastewater treatment facility for secondary processing. The plant conducts monthly monitoring of pollutant discharge and has established mid- and long-term management goals, including targets through 2030.

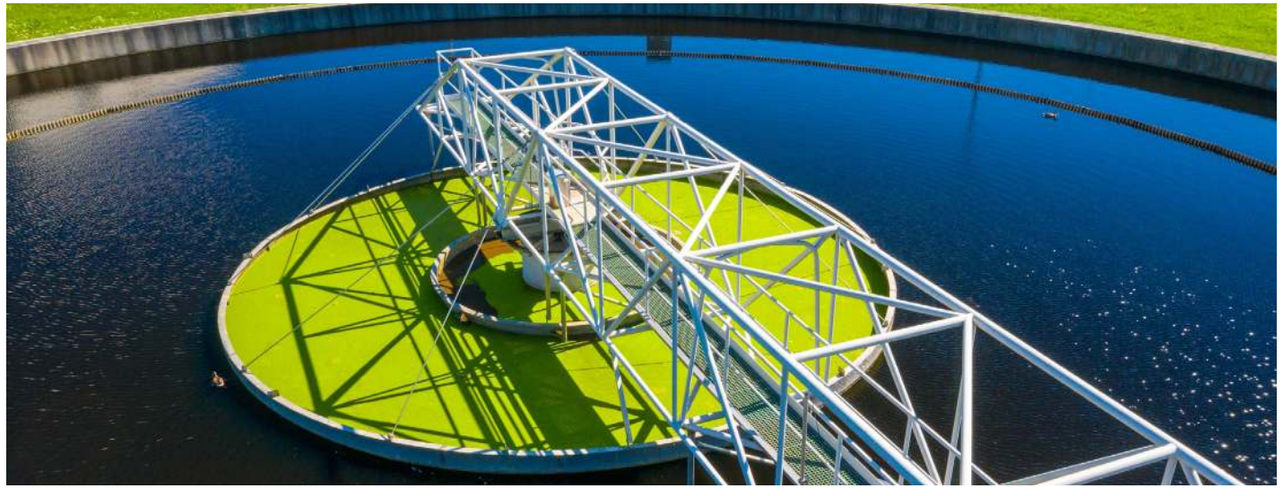
Through these structured efforts, SK chemicals actively prevents and monitors the contamination of groundwater and marine ecosystems in the regions where its sites are located.

Independent Water Source Development

Ulsan Plant is the most water-intensive SK chemicals site and is critical to the company's operations. To secure water stability and respond to risks such as drought or flooding, the plant sources raw water directly from the Nakdong River via Korea Water Resources Corporation and processes it in-house. Unlike municipal water, this system eliminates the need for chlorine removal and offers cost advantages in water use.

Water Management Training

SK chemicals provides training for Ulsan Plant personnel on pollution prevention and wastewater treatment system management to reduce effluent generation. In 2024, water education was incorporated into the ESG internalization program, accounting for 5% of team KPIs, and was offered online. The course "Water Treatment and Reuse of Next Decades" was introduced to raise awareness of water management and to share emerging water treatment technologies across the organization.



Water Pollutant Management Measures by Business Sites

Ulsan Plant Wastewater Treatment Facility

- Real-time measurement of wastewater discharge concentration using Ministry of Environment Water Quality TMS equipment
- Equipped with activated carbon filtration water quality prevention facility

Cheongju Plant Wastewater Treatment Facility

- Primary internal treatment using activated sludge process followed by transfer
- Management of goal achievement through regular monitoring

Pollutants Management

04.

POLLUTANTS MANAGEMENT

Chemical production requires strict management of pollutants harmful to air, water, and soil. As regulatory demands and stakeholder expectations rise, it is increasingly important for companies to proactively respond. SK chemicals recognizes these environmental risks and has established internal standards stricter than legal requirements. The company continues to invest in emission reduction systems and manages pollutants across air, water, and waste. In addition, SK chemicals complies with regulations on chemical substance use and actively substitutes or reduces high-risk substances to minimize environmental impact.

Air Pollutant Management System

Minimizing Air Pollutant Emissions Strategy

SK chemicals' Ulsan site manages air pollutants by establishing internal targets that go beyond regulatory compliance. The company has implemented internal emission targets that are significantly stricter than legal requirements. In 2024, SK chemicals managed the emissions of major air pollutants, including NOx, SOx, and particulate matter, to remain below 50 percent of legal thresholds and aims to maintain emissions below 40 percent in 2025. Additionally, under the "Voluntary Agreement for Fine Dust Reduction" signed with the Ministry of Environment in February 2023, SK chemicals achieved its target of reducing fine dust emissions by 40 percent by 2024, based on 2016 levels. This follows the successful achievement of a previous agreement's target to reduce emissions by 40 percent from 2014 levels between 2018 and 2022.

Monitoring Business Sites' Air Pollutant

SK chemicals' Ulsan site manages both the concentration and total emissions of air pollutants such as nitrogen oxides, sulfur oxides, and particulate matter. In 2023, the site operated its Total Monitoring System(TMS) for nitrogen oxide emissions from thermal oil heaters without issue and has maintained emissions below 30 percent of legal thresholds since January 2024.

Air Pollutant Emission Reduction Activities

Introduction of Air Pollutant Reduction Facilities

To minimize the environmental impact of air pollutant emissions from its Ulsan site, SK chemicals has adopted internal emission targets stricter than regulatory requirements. From 2019 to 2023, 11 standard burners at the Ulsan site's thermal oil heaters were sequentially replaced with ultra-low NOx burners. In 2023, a desulfurization system was also installed to treat hydrogen sulfide, a byproduct gas generated in the anaerobic tanks of the wastewater treatment facility. As of 2024, hydrogen sulfide levels have been maintained at 0 ppm.

Fugitive Emissions Management

SK chemicals conducts regular inspections of facilities susceptible to fugitive emissions of hazardous air pollutants(HAPs). If leaks are detected, the company repairs or replaces the relevant equipment and retests the area to confirm that concentrations have been reduced to 0 ppm.

Pollutants Management

Other Environmental Pollution Management

Noise-Induced Hearing Loss Prevention Procedure

In accordance with its occupational hazard management protocol, SK chemicals conducts regular noise measurements for each process and manages workplace conditions to ensure that noise levels do not exceed 90 dB for prolonged periods(more than four hours). Measurement results are communicated to employees, and hearing protection equipment is provided and recommended in high-noise areas. Annual training is conducted to prevent noise-induced hearing loss. Additionally, employees working in areas identified as high-risk for hearing loss receive personalized health consultations.SK chemicals also manages noise impacts on the surrounding community. Each year, an external specialist organization conducts noise and vibration measurements along the boundary of the site. In 2024, SK chemicals continued to maintain results within legal limits.

Odor Management System

SK chemicals operates an odor patrol system in the Yongjam industrial complex area, where the Ulsan plant is located. A voluntary patrol team, composed of employees from businesses within the complex, conducts regular patrols and takes immediate mitigation actions when odors are detected. Results are reported via social media(Naver Band). Through the implementation of this system, SK chemicals continues to mitigate potential negative environmental impacts on the surrounding community.

Special section: Reducing Local Environmental Impact Through Integrated Environmental Management

SK chemicals has adopted an Integrated Environmental Management System(IEMS) to comprehensively manage its air, water, and waste impacts, thereby minimizing environmental burdens on the local community. The IEMS conducts integrated assessments of total environmental impact across each site. Following its initial approval in November 2022, SK chemicals has continued to operate under this system and in 2023 maintained emissions below 30 percent of legal thresholds. The company received the highest rating in the IEMS evaluation, reflecting the effectiveness of its environmental improvement measures. In addition to reducing pollutant emissions, SK chemicals was designated an "Excellent Environmental Management Site[1)]" after receiving the highest grade of "Excellent" in all evaluation categories, including on-site application of Best Available Techniques (BAT), zero environmental accidents, and full compliance with regulations. This designation serves as an indicator of the effectiveness of air pollutant reduction facilities—such as ultra-low NOx burners and desulfurization systems—and demonstrates that SK chemicals' environmental improvement efforts are contributing to enhanced air quality and living conditions in the surrounding areas of its Ulsan plant. SK chemicals will continue its efforts to reduce environmental impact in pursuit of mutual growth with the local community.

1) "Excellent" business sites: Sites earning "Excellent" must achieve a minimum of three "Excellent" scores and no scores lower than "Good."

Pollutant Emissions Levels

13 points / 13points, 'Excellent'

In the evaluation of emission concentration levels compared to permitted emission standards for air(dust, SOx, NOx) and water quality(BOD, TOC, SS, TN, TP) pollutants, SK chemicals received the highest score by emitting less than 30% of the permitted emission limits.

On-site Application of Appropriate Environmental Management Techniques

15 points / 15 points, 'Excellent'

Environmental management techniques refer to environmental technologies related to the design, installation, operation, and management of emission/prevention facilities that most effectively reduce pollutant emissions technically and economically. SK chemicals applied 91.2% of the Best Available Techniques(BAT) on-site and received the highest score.

Legal Violations and Environmental Accidents

17 points / 17 points, 'Excellent'

Since obtaining integrated environmental permits, systematic integrated environmental management has achieved zero legal violations in external inspections and regular audits. Additionally, environmental pollution accident prevention education and training have been conducted to establish an accident prevention management system, earning the highest score.

Measurement / Monitoring Field

15 points / 17 points, 'Excellent'

Monitoring of pollutants directly emitted into the environment is conducted beyond regulatory requirements, ensuring reliability of measurement monitoring and achieving an 'Excellent' score.

Pollutants Management

Advancing Hazardous Chemical Substance Management System

Chemical Management Governance

To enhance its capabilities in chemical substance management, SK chemicals has established a structured governance system. Under the Board of Directors, the Risk Management Committee oversees chemical substance management. The company has also formed the PSRA(Product Stewardship & Regulatory Affairs) team to serve as the responsible function for chemical risk control. This structure enables integrated management that exceeds regulatory requirements and strengthens internal controls on product responsibility and human health impacts.

R&D Toxicity Evaluation and Review System

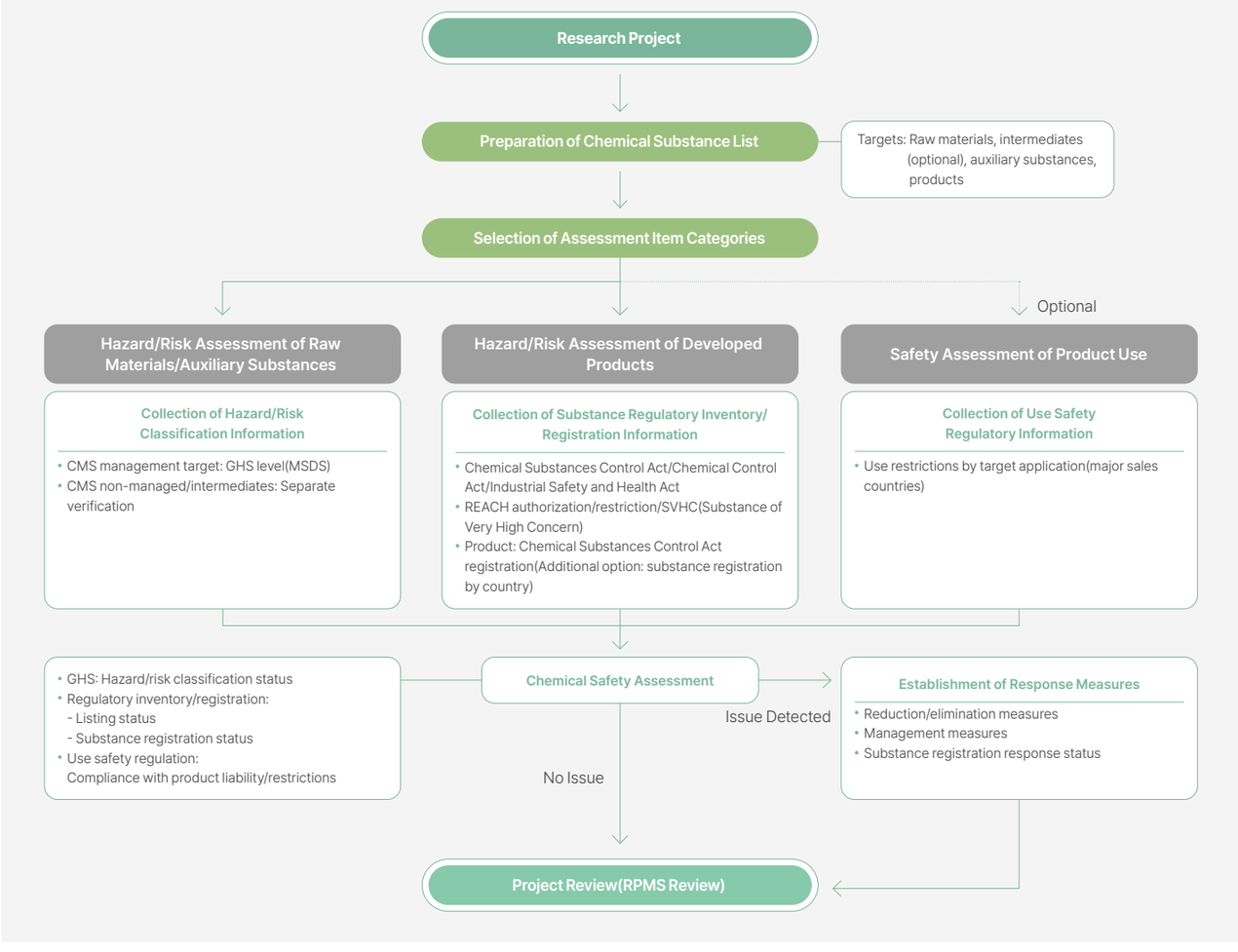
SK chemicals has improved its internal process to ensure that potential hazards of raw and auxiliary materials are identified at the product development stage. During product design, the company verifies whether raw and auxiliary materials are subject to regulation under the chemical management system(CMS) by referring to their MSDS and reviewing classifications under the Globally Harmonized System(GHS)[1]. Material inventories and registration information are reviewed to evaluate the chemical safety of new products. The scope of this review is being expanded to include intended product use, further enhancing consumer safety.

Integrated Chemical Management System(CMS)

SK chemicals introduced a Chemical Management System(CMS) in 2022 to digitally manage all processes from chemical procurement to use and disposal across the Ulsan site and its chemical research labs. The system maintains a database of all handled chemicals, ensuring compliance with relevant regulations and permitting requirements. Purchases are blocked automatically if compliance is not verified. The CMS also enables ongoing monitoring and management of chemical usage, volume, and regulatory obligations.

1) Globally Harmonized System of Classification and Labelling of Chemicals(GHS)

Product R&D Chemical Safety Evaluation/Review System



Pollutants Management

Advancing Hazardous Chemical Substance Management System

Compliance with Chemical Substance Regulations and Strengthening Disclosure

SK chemicals transparently discloses its performance and efforts in managing hazardous chemical substances to enable stakeholders to safely select chemical products. The company regularly monitors hazardous substances listed in the SVHC(Substances of Very High Concern) and SIN(Substitute It Now) List and discloses whether and how much of these substances are used on its website. It also complies with domestic chemical substance usage laws, reporting quantities to government agencies, and discloses emission performance through the chemical substance information system. Through this comprehensive chemical substance management system, SK chemicals recorded zero environmental or safety incidents and zero violations related to chemical substances in 2024. The company provides Material Safety Data Sheets(MSDS) with its products to ensure safe handling, aligned with global market standards. In addition, SK chemicals discloses product information relevant to various regulations and certifications, such as food contact substance regulations in the United States, Europe, and China, the Korean Chemical Control Act, and EU REACH. For the copolyester product group, the company shares information with customers through RAPID(Regulatory Affairs Product Stewardship Information), which includes national inventory status, whether SVHC substances listed under Article 59(10) of EU REACH are included, and compliance with food contact substance regulations in various countries. The PSRA team continuously monitors regulatory environments to ensure products meet the most current requirements in actual use conditions and supports customers in meeting regulatory demands and certifications.

Chemical Management Competency Enhancement Program

SK chemicals provides company-wide training on chemical safety, regulations, handling, and overall chemical management policies. The training process has been strengthened to ensure MSDS, chemical management, and safety policies are systematically reflected in the chemical product development process, enabling effective response to potential chemical spills.

Transparent hazardous chemical disclosure activities

	Hazardous chemicals for disclosure	
International Standards	SVHC SIN List	
Domestic Standards	Toxic substances Restricted substances Prohibited Substances	Accident preparedness substances and authorized substances

Scope of RAPID document information

Major country-specific chemical substance regulations	Food contact material regulations in major countries
Use-specific regulations in major countries	Others (e.g., inclusion of SVHC, conflict minerals)

* Disclosure scope varies by product

2024 Korea Chemical Substance Regulation

Purpose	• Overview of domestic chemical substance regulations to consider when manufacturing/importing new products response methods • MSDS preparation training
Target	• Members of SK chemicals Green Chemical Business Division
Implementation Date	• July 2024(conducted once annually)
Training Contents	• Practical training on Chemical Substances Control Act, Chemical Control Act, Industrial Safety and Health Act overview and regulatory compliance • Overview and methods of MSDS preparation

Chemical substance regulation violation status 2021–2024

Chemical substance regulation violation status 2021–2024	Worker chemical exposure exceeding standards incidents	Chemical substance regulation violations
0 case	0 case	0 case

Pollutants Management

Substitution of Hazardous Substances

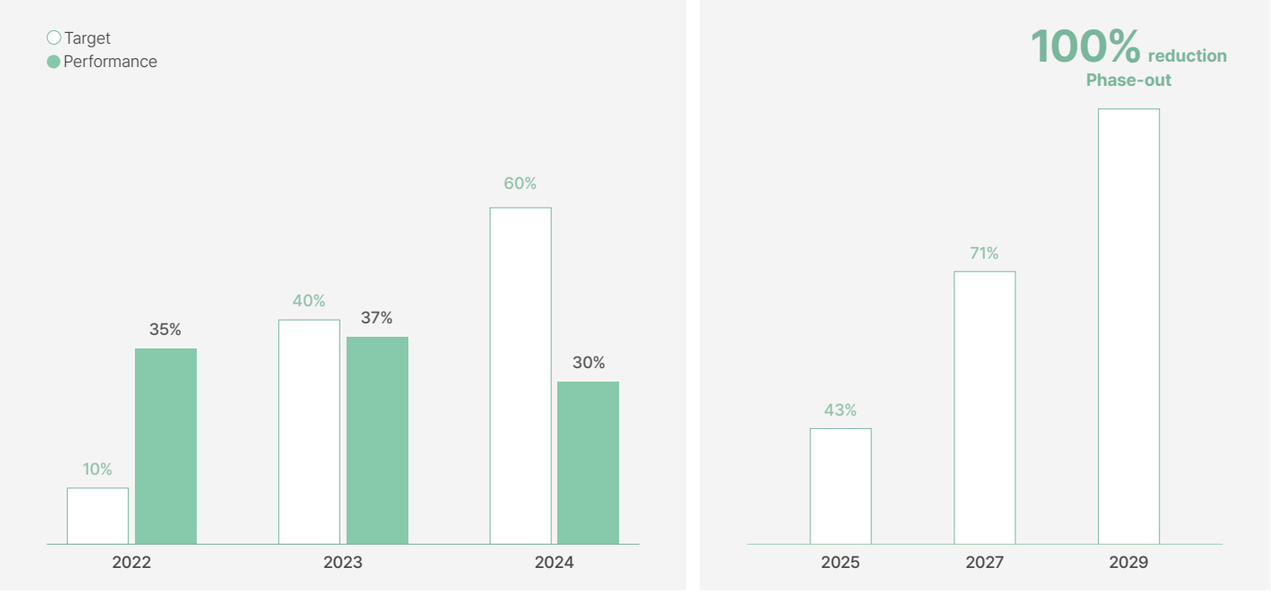
Substitution of Hazardous Substances

To protect the health and safety of stakeholders and minimize impacts on the global environment and ecosystems, SK chemicals has established and implemented a plan to reduce and phase out all hazardous chemical substances over the long term. As part of this effort, the company has optimized DMT raw materials to reduce PX usage and successfully completed a full substitution in May 2022. SK chemicals manages hazardous substances using global lists such as EU REACH's SVHC and ChemSec's Sin List. Usage and quantities of SVHC and Sin List substances are verified and disclosed on the company website, and efforts are ongoing to substitute these substances.

Phase-Out of Hazardous Substances and Achievements

Solvent Naphtha Kocosol 100(Solvent Naphtha), used in SK chemicals' SKYBON product, is listed on the Sin List. The company has established and is executing a mid-to-long-term plan to replace it with a safer alternative. In 2022, a substitution plan was established and the amount reduced compared to the 2021 baseline was set as a performance indicator included in executives' KPIs. Product development proceeded using substitute materials that maintain product quality and performance while being safer for human health and the environment. Currently, SK chemicals is undergoing technical validation with customers for full substitution. In 2024, Solvent Naphtha usage was reduced by 30% compared to 2021. Taking market conditions into account, the company adjusted the target year for 100% reduction to 2029 and will continue efforts to gradually reduce environmental impacts while maintaining business continuity.

Solvent Naphtha Reduction Rate Targets and Performance(Compared to 2021 Base Year Usage)



Performance of recent 3 years

Target

Context

Companies shall implement a talent development framework that supports continuous skill growth, while promoting work-life balance through diverse institutional support to enhance employee well-being. Companies are also responsible for providing safe and trustworthy products to customers by strengthening quality management systems and continually verifying product safety and efficacy based on quality certifications. Furthermore, to fulfill social responsibility, companies should improve access to essential medicines for a broader population. In addition, ensuring a safe working environment requires the establishment of safety and health management systems across sites and reinforcing measures to prevent various accidents and hazards. In response to growing demands for ESG management across the supply chain, it is necessary to establish due-diligence systems and implement sustained activities. This report provides a detailed overview of SK chemicals' efforts in these areas.

*** Reporting Scope**
- SK chemicals, SK multi utility, SK bioscience

Approach

SK chemicals has established and is operating a competency and performance-based development system with the goal of strategic human resource development. The company has adopted a human rights management policy and conducts human rights impact assessments to foster a culture of respect for human rights. In addition, to ensure a safe working environment, which is one of the core elements of corporate management, the company has created a dedicated corporate SHE organization and operates a safety hotline to strengthen communication with the field. Responding to rising ESG requirements across the supply chain, SK chemicals has also established supply chain ESG policies and supports supplier capacity building through on-site assessments where necessary.

Human Rights Management Enhancement

- Implementation of a safe workplace
- Employee's happiness
- Quality management & customer satisfaction
- Increase in access to medicine
- Responsible supply chain management
- Realization of social values

2024 ACHIEVEMENT & PROGRESS

Key Area	Key Agenda	2024 Target	2024 Key Performance	2025 Target	Mid to Long-Term Plan	Page
Strengthening Human Rights Management	Establishment and dissemination of a human rights management system	• 2024: Conduct the second-year human rights impact assessment - Includes 2 subsidiaries, 12 in-house partners, Cheongju Plant, Pharma regional offices, and the local community(Seongnam)	• Expand and implement the human rights impact assessment(second year) and carry out improvement tasks • Revise the human rights management declaration and execution guidelines • Publish the 2024 human rights management report	• Conduct human rights impact assessments at all business sites - headquarters and subsidiaries(including overseas entities)	• Continue to implement improvement tasks to mitigate negative human rights impacts and measure its effectiveness by 2026	92
Implementation of a Safe Workplace	Establishment and operation of SHE system	• Maintain grade A at domestic sites in SK Discovery SHE level assessment • Establish SHE management systems at overseas production sites(Yantai/Shantou)	• Achieve grade A at Ulsan and Cheongju plants in SK Discovery SHE level assessment • Introduce SHE upgrades at overseas production sites(Yantai/Shantou) • Obtain ISO 45001 certification for all domestic production sites under SK chemicals' consolidated standards	• Achieve grade A or higher at all domestic business sites • Conduct SHE level assessments at overseas production sites(Yantai/Shantou)	• By 2027, elevate the diagnostic target level for domestic sites by one grade above grade A and achieve grade B or higher for overseas subsidiaries in SK Discovery SHE assessment	99
	Strengthening management of safety accidents	• Target a lost time injury rate(LTIR) of 0.16	• Achieve 0.06 lost time injury rate(LTIR) • Develop and implement an AI-based work risk assessment tool	• Target a lost time injury rate(LTIR) of 0.07 or lower at domestic sites	• Achieve a lost time injury rate(LTIR) of less than 0.05 for all members by 2030	99
Employee's Happiness	Human resource development	• Strengthen job competency based on skill platforms • Develop and support strategies for workforce development to achieve OKRs/business objectives	• Define necessary skills, set target levels for each job role, and measure individual competencies • Operate intensive language courses to strengthen global competencies	• Define key skills and design career development paths for each unit organization	• Support professional competency development and career growth for members in each unit organization by 2026	105
	Employee's happiness	• Continue operating an anonymous psychological care program for members	• Operate programs to promote psychological stability among members - Includes mobile counseling services and 'happiness battery' diagnostics	• Implement systems/programs that provide positive workplace experiences and enhance happiness of members	• Enhance the experience of happiness among members and raise awareness of happiness management	105
Increase in Access to Medicine	Research and investment for portfolio expansion	• Expand the pharmaceutical portfolio	• Two product approvals(combination treatment for hypertension/ hyperlipidemia, migraine treatment) • One license-in agreement(gastroesophageal reflux disease treatment-joint research in progress)	• Establish core competitiveness in AI-based business	• Secure sustainable growth drivers in R&D	112
Responsible Supply Chain Management	Establishment of ESG audit system for suppliers	• Establish the supply chain ESG policy and conduct supply chain ESG assessment	• Expand ESG elements as evaluation criteria for partners • Enhance supply chain ESG assessment and improvements	• Expand coverage of supply chain evaluation • Strengthen management of high-risk groups based on evaluation results	• Activate supply chain ESG assessments and expand supply chain support programs based on ESG evaluations	114
Realization of Social Values	Participation and development of local communities	• Develop business-linked social contribution programs and expand member participation	• Employee volunteer activity participation(633 people) • Signing of the 'Brain Age Youth Project' Memorandum of Understanding(MOU) with Gwangju Metropolitan City Western District Office	• Establish Jigwanseoga, a humanities happiness center for Suwon citizens	• Allocate 3% of estimated operating profit to social contributions	120

Human Rights Management

01.

HUMAN RIGHTS MANAGEMENT

Global companies increasingly recognize the protection of human rights as a critical factor for sustainable business growth and are expected to adopt systematic approaches to manage it. Key areas such as labor rights, a discrimination-free working condition and the prevention of child and forced labor represent the most fundamental responsibilities of companies. Failure to uphold these responsibilities can damage brand trust and corporate reputation. SK chemicals has revised its internal policies and procedures to reinforce human rights management and is conducting human rights impact assessments. The company is also pursuing continuous improvement of human rights practices through the implementation and monitoring of remedial actions.

Principles and Framework of Human Rights Management

Strengthening Human Rights Management Principles

SK chemicals has declared support for the ten principles of the United Nations Global Compact(UNGC) across the areas of human rights, labor, environment, and anti-corruption, while annually disclosing relevant issues following the UN Guiding Principles(UNGP) reporting framework. The company outlined the rights and responsibilities associated with specific human rights issues for employees through its Statement of Human Rights Management and Execution Guidelines enacted in 2022, including provisions to protect vulnerable groups. In 2024, SK chemicals revised the guidelines to strengthen content related to the prohibition of child and forced labor, assurance of living wages, and recruitment procedures. The company also published an appendix to clarify preventive and responsive measures related to workplace harassment and sexual misconduct.

Strengthening Human Rights Management Process

2024 Human Rights Management Report

To enhance the effectiveness of reviewing human rights issues and managing related risks across the entire value chain, SK chemicals continues to strengthen its human rights management process. The company established internal guidelines comprising a six-step due diligence process and has reinforced the professionalism of those involved through targeted training for responsible departments. Results from these assessments are reported to both the ESG Committee and the Human Rights Management Committee and disclosed externally to enhance communication with stakeholders. In 2024, SK chemicals published its first Human Rights Management Report, which detailed the results of impact assessments conducted over the past two years, along with key issues and improvement actions.

Strengthening Human Rights Management Governance

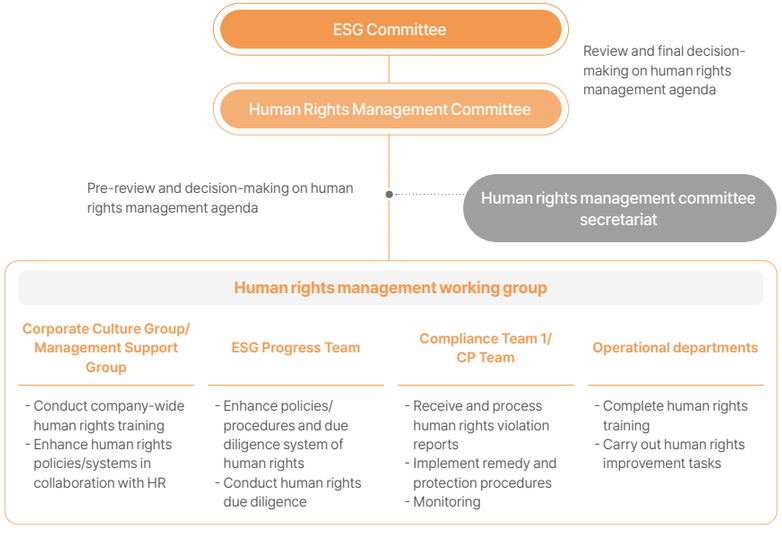
In December 2022, SK chemicals established the Human Rights Management Committee under the ESG Committee to strengthen the decision-making framework for protecting and promoting the rights of employees and stakeholders. The committee is chaired by the CEO and comprises senior executives including the Head of Corporate Support Division, Head of Corporate Culture Group, and the Head of Legal Group. It conducts pre-reviews of key human rights issues and provides support for ESG-related decisions. The company also operates a Human Rights Task Force to ensure the execution of actionable improvements.

Human Rights Due Diligence Process

1. Development of Assessment Plan	Development of assessment indicators based on international norms/due diligence standards tailored to the current status of SK chemicals
2. Definition of Vulnerable Groups	Define stakeholders vulnerable to human rights impacts and incorporate them into the assessment indicators and targets
3. Conducting Human Assessment	Conduct general assessments(checklist/survey/SAQ[1]) and in-depth assessments(FGI[2], on-site inspection)
4. Identification of Key Human Rights Issues	Identify key human rights issues by prioritizing potential issues based on severity and likelihood of occurrence
5. Mitigation Measures for Key Issues	Develop short, medium, and long-term improvement tasks for mitigation and prevention by issue, to establish and implement execution plans
6. Monitoring and Communication	Communicate with stakeholders through the publication of reports monitoring the effectiveness of improvement tasks and grievance procedures

1) Self Assessment Questionnaire 2) Focus Group Interview

Human Rights Management Governance Composition



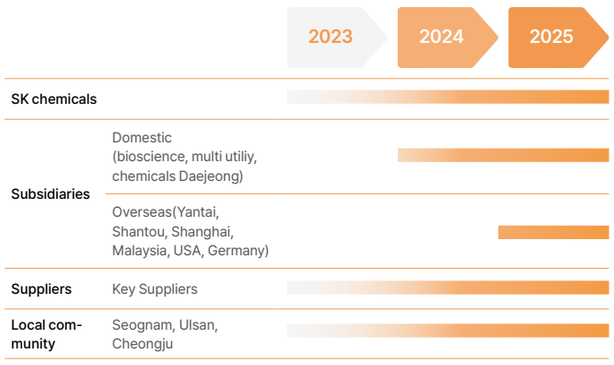
Human Rights Management

Human Rights Risk Management

Conducting Human Rights Impact Assessment

SK chemicals has conducted annual human rights impact assessments since 2023 with external experts to ensure independence, credibility, and professionalism. Identified issues are addressed in cooperation with relevant departments, and improvement actions are implemented and monitored for effectiveness. In 2024, the scope of assessment expanded to include employees at the Cheongju site and regional offices under the Pharma business, two subsidiaries(SK multi utility and SK chemicals Daejung), twelve on-site partner companies, and the local community of Seongnam. This scope covers 86 percent of the company's revenue based on consolidated financial statements. In 2025, the assessment will further expand to include six overseas subsidiaries and the local community of Cheongju, bringing coverage to 100 percent of consolidated revenue. In 2026, mid- to long-term human rights initiatives will be implemented, including expanded stakeholder engagement and in-depth monitoring and evaluation of actions taken in response to identified risks.

3-Year Roadmap for Human Rights Due Diligence



Enhancing Assessment Indicators

SK chemicals continuously enhances its human rights impact assessment indicators to systematically identify and manage various potential human rights risks. Indicators are aligned with domestic and international standards, including Korean K-ESG Guidelines, the ILO Core Conventions, the Universal Declaration of Human Rights, the EU Supply Chain Due Diligence Directive, and the German Supply Chain Due Diligence Act. In 2024, SK chemicals reorganized its indicators into 16 items across three categories and separately established evaluation items for vulnerable groups such as women, disabled and non-regular workers. The company also improved assessment coverage by establishing stakeholder-specific indicators for employees, suppliers, local communities, and consumers to identify and manage more nuanced human rights issues. SK chemicals remains committed to continuously strengthening its human rights impact assessment framework to address the diverse risks faced by stakeholders.

Human Rights Impact Assessment Item

Area	Item	Key Indicator
Working conditions	Job stability	• Dismissal restrictions, hiring of non-regular employees, four major insurances
	Working hour	• Overtime/night/holiday work, flexible working arrangements, rest periods
	Adequate compensation	• Minimum wage guarantee, living wage/fair wage
	Freedom of association and collective bargaining	• Right to organize, right to collective bargaining, labor-management council
	Work-life balance	• Maternity leave, parental leave, vacation/leave, childcare support
	Health and safety	• Safety and health management system, risk assessment, safety and health measures, victim support
Equal treatment and opportunities	Female	• Promotion opportunities, equal pay for work of equal value, non-discrimination
	Disabled	• Employment of disabled persons, accessibility for disabled, non-discrimination
	Non-regular employment	• Promotion opportunities for non-regular employees, equal pay for work of equal value, non-discrimination
	Diversity	• Elderly, sexual minorities, foreigners, religion/politics, regional/educational background
	Education and training	• Mandatory legal training, job training
	Workplace bullying and sexual harassment	• Workplace bullying and sexual harassment, remedial actions
Other labor rights	Child labor	• Prohibition of employment under 15 years old, restrictions on employment under 18 years old
	Forced labor	• Involuntary labor, freedom to resign
	Adequate housing	• Housing support(welfare benefits, foreign workers, disabled persons, etc.)
	Privacy	• Labor monitoring, personal data/privacy protection

Human Rights Management

Key Issues and Mitigation Measures Identified in the 2024 Human Rights Impact Assessment

In 2024, SK chemicals conducted its second human rights impact assessment with an external professional audit agency. The scope of the assessment covered employees of the Pharma business Cheongju plant and regional offices, two subsidiaries, twelve in-house partners, and the local community in Seongnam. The evaluation was based on a structured methodology that included general assessments(checklists, surveys, SAQs) and in-depth evaluations(FGIs, on-site inspections). Each of the sixteen human rights indicators across three categories was assessed in terms of severity and likelihood, with risk levels assigned on a three-tier scale of High, Mid, or Low. As a result, seven human rights items with Mid or higher risk levels were identified as key issues. In response to these findings, SK chemicals has implemented targeted mitigation measures, including enhanced communication of internal policies and procedures, expansion of facilities and equipment, and revision of relevant regulations. The company continuously monitors the status and effectiveness of these measures.

Category	Factor	Impacted stakeholders					Risk level	Mitigation measures
		SK chemicals employees	Subsidiaries employees	Partners employees	Local community	Other stakeholders		
Working conditions	Working hours	●	●	●	-	-	High	• Enhance member awareness by providing information on policies related to working hours, such as flexible work arrangements and rest periods
	Freedom of association and collective bargaining	●	●		-	-	Mid	• Expand channels for communicating decisions of the labor-management council
	Work-life balance	●			-	-	Mid	• Enhance awareness among members of work-family balance systems and expand activities
	Health and safety	●	●		-	-	High	• Expand rest facilities for vulnerable members and partner company members • Strengthen accident prevention by increasing training on the use of protective equipment • Expand tailored support for customer-facing workers
Equal treat-ment and opportunities	Non-regular employment	●			-	-	Mid	• Review and improve discriminatory elements related to welfare benefits for non-regular employees
	Workplace bullying and sexual harassment	●	●	●	-	-	High	• Enhance policies related to workplace bullying/sexual harassment • Expand awareness improvement through education on workplace bullying/sexual harassment and grievance handling channels • improve grievance procedures to prevent secondary victimization
Other labor rights	Privacy		●		-	-	Mid	• Improve regulations related to the installation and operation of CCTV in the workplace

Definition and Mitigation Measures for Vulnerable Groups

In conducting Human Rights Impact Assessments, SK chemicals defines separate groups that are more vulnerable to human rights issues and works to identify and mitigate their potential risks. These vulnerable groups include employees during pregnancy, childbirth, or childcare periods, young workers aged 29 or younger, senior workers aged 60 or older, frontline production employees, interns and contract workers, low-wage workers, and minority groups such as disabled, migrant workers, or those with medical history. When selecting participants for focus group interviews(FGIs), SK chemicals prioritizes the inclusion of members from these vulnerable groups to hear their voice preferentially. In the 2024 Human Rights Impact Assessment, the groups identified as being particularly affected by major issues were employees during childcare periods, frontline workers, and interns and contract-based employees. Accordingly, SK chemicals takes into account the perspectives and influence of these groups when developing and implementing issue-specific mitigation measures. The company remains committed to continuously identifying individuals who are vulnerable to human rights risks and prioritizing improvements that protect their rights.

Reporting and Disclosure of Human Rights Impact

As key risks and assessment results related to human rights management have a significant impact on the company's business operations, SK chemicals reports the findings of its human rights impact assessments and related implications to the ESG Committee and the Human Rights Management Committee. These core issues are reflected in management decision-making. SK chemicals also discloses its human rights management process, assessment results, and key risks through its annual sustainability report, human rights management report, and official website.

Human Rights Training

SK chemicals conducts human rights training to ensure the systematic establishment of human rights management within the organization and to strengthen the capabilities of its internal members. Human rights training, which includes topics such as the prevention of workplace bullying and sexual harassment, is carried out on a regular basis, and in 2024, 100 percent of employees completed the training. In addition, the company is expanding training programs targeting external stakeholders to raise awareness of human rights protection among its partner companies.

Human Rights Management

Cases of Mitigation Measures and Remediation

CASE 1.

Internalization of Employee Safety and Health

Based on the 2024 Human Rights Impact Assessment, health and safety were identified as one of the major issues with potential human rights impacts on SK chemicals and its subsidiaries. In response, SK chemicals developed mitigation measures and detailed implementation directions by business site and job function. Through this process, the company expanded the distribution of personal protective equipment, strengthened safety and health training for employees in vulnerable job categories, and obtained safety and health management system certifications. SK chemicals is committed to internalizing safety and health practices and continues its efforts to establish a work environment that ensures the safety and well-being of all employees.

Detailed Mitigation Activities

- Expanded provision of personal protective equipment such as masks, safety goggles, respiratory protection, and skin barrier creams
- Reinforced training on proper use of protective equipment
- Implemented training programs to prevent health risks for customer-facing employees
- Strengthened training on handling hazardous chemicals
- Improved rest areas for employees during pregnancy and childbirth
- SK multi utility obtained ISO 45001 certification for occupational health and safety management system

CASE 2.

Enhancement of Workplace Bullying and Sexual Harassment Management System

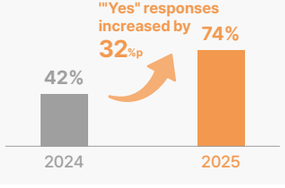
In addition to health and safety, workplace bullying and harassment were identified as another major issue in the 2024 Human Rights Impact Assessment. SK chemicals has reinforced its internal management systems and policies, including the revision and establishment of workplace bullying and sexual harassment regulations for both SK chemicals and its subsidiaries. For better protection of more stakeholders,training on workplace bullying and harassment was extended to employees of in-house partners. The company also expanded the number of female grievance counselors to improve access to the grievance reporting system. Through these efforts, the share of favorable responses to the grievance-handling process satisfaction question in the Human Rights Impact Assessment survey rose markedly—from 42 % in 2024 to 74 % in 2025.

Detailed Mitigation Activities

- Enhanced internal rules prohibiting workplace bullying and sexual harassment(Established Appendix of Guideline for Human Rights Management Execution)
- Revised and supplemented policies and regulations at SK multi utility and SK chemicals Daejeong
- Strengthened training on bullying and harassment prevention for partner company employees
- Designated additional female grievance counselors to improve grievance procedures

Evaluation of Improvement Task Effectiveness

Q. How satisfied are you with our company's process for handling grievances related to workplace bullying and sexual harassment?



CASE 3.

Strengthening the Grievance Management Process

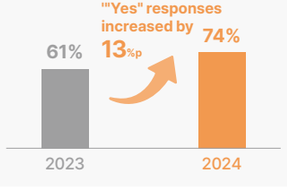
Based on the 2023 Human Rights Impact Assessment results, SK chemicals set the advancement of its human rights risk management system as a remediation task and began implementation. To enable systematic management of human rights-related risks, an external grievance reporting channel was newly established, and awareness activities were expanded to enhance employee understanding of the diversified reporting mechanisms. A separate monitoring system was also introduced to continuously track risks related to workplace sexual harassment. As a result of these efforts, the positive response rate to the question about awareness of grievance procedures in the company-wide Human Rights Impact Assessment survey improved significantly from 61% in 2023 to 74% in 2024.

Detailed Mitigation Activities

- Established a new external grievance channel
- Enhanced guidance on grievance channels for employees
- Established a dedicated monitoring system for workplace sexual harassment

Evaluation of Improvement Task Effectiveness

Q. Are you familiar with our company's process for handling grievances related to human rights violations?



Human Rights Management

Grievance Handling and Remedy for Human Rights Issue

Grievance Handling System

SK chemicals operates an internal grievance handling channel led by the Corporate Culture Group and Compliance Team 1, as well as an SK Ethical Management consultation and reporting channel for external stakeholders. These systems enable stakeholders to freely express opinions or seek advice regarding human rights-related concerns. To strengthen the anonymity, accessibility, and independence of the grievance system, SK chemicals established an external grievance channel in 2023 and continues to operate it to improve stakeholder access to grievance mechanisms.

Grievance Handling Channels

	Internal	External(New)
Channel	• **Compliance Team 1** - e-mail : skchemicals.ethics@sk.com - Phone : 02-2008-2486 - Address : Ethics Management Manager, Compliance Team, 310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do • **SK Group** - SK Ethical Management Comprehensive System : https://ethics.sk.co.kr/	• **Operate a communication hotline** - sotonghotline.com
Type of report	• Ethics/corruption, BP misconduct and abuse of power, workplace bullying/sexual harassment	• Focus on human rights violations of employees such as workplace bullying/sexual harassment, labor rights violations, and discrimination treatment
Registration/survey	• Internal people in charge	• External experts[1)]

Status of Human Rights Grievance Reception and Handling

Category		Unit	2022	2023	2024
Grievance reported	Customer	Cases	0	0	0
	Employees	Cases	1	3	1
	Business Partners	Cases	0	0	0
	Other	Cases	0	0	0
	Total	Cases	1	3	1
Grievance handling implementation		Cases	1	3	1
Ratio of grievances resolved		%	100	100	100
Measures	Minor disciplinary action	Cases	1	3	0
	Severe disciplinary action	Cases	0	0	1
Sexual harassment and discriminatory incidents		Cases	0	2	0

1) External experts may conduct fact-finding investigations if the whistleblower requests or if there is a high possibility of whistleblower protection issues arising during internal investigations

Grievance Handling Process

STEP 1
Receive report
website/telephone/mail/e-mail/interview

STEP 2
Categorize reports
Determine the subject of investigation based on the position of the subject and the gravity of the matter

STEP 3
Investigate
Involve related departments if necessary

STEP 4
Report on results
Review the results of the survey, report/approve of opinions, and investigate further if insufficient

STEP 5
Follow-up measures
Provide feedbacks on the results when requested, request disciplinary action when a reason for disciplinary action occurs

Whistleblower Protection Measures

SK chemicals handles all reports through a fair and transparent process and ensures strict protection of the whistleblower's identity. In particular, for human rights-related cases, a procedure is in place to separate the victim and the alleged perpetrator and to implement appropriate measures when issues arise. The company has established stringent safeguards to ensure that whistleblowers do not face any disadvantage in terms of employment status or working conditions as a result of their reports. Furthermore, any retaliation against whistleblowers is subject to disciplinary action under a zero-tolerance policy.

Whistleblower Protection System

1. Informants are not subject to personal disadvantage or discrimination for reasons of legitimate information.
2. In the event of a disposition of disadvantages due to a report, the correction and protection can be requested to the department in charge, and the department in charge will take all measures to minimize the disadvantages.
3. The identity and information of the informant are strictly confidential so that they are not disclosed against their will.
4. In the process of confirming the facts of the report, the company equally protects those who cooperated in the investigation by means of statements and data provision.
5. If the informant were to participate in an unethical or illegal act but voluntarily report the fact, the informant may be exempted from sanctions.

Human Rights Management

Labor Environment

Fair Evaluation and Compensation

SK chemicals is committed to growing together with its employees through fair and rational performance evaluations. An annual performance evaluation is conducted for regular employees, and in 2024, 93% of employees participated. At the beginning of each year, employees establish KPIs based on MBO(Management by Objectives), aligned with organizational and business goals. Four scheduled check-ins are held annually to share progress and provide feedback on performance. In addition, the company promotes a data-driven performance management process through real-time feedback. Once a year, employees at the manager level and above undergo a 360-degree assessment to identify strengths and areas for improvement, which supports competency development and leadership growth.
SK chemicals goes beyond compliance with legal minimum wage by ensuring living wages[1)], which is declared in its Statement of Human Rights Management and Execution Guidelines. The company analyzes living wage levels in the locations of each site and reflects them in compensation, and negotiates annual wage increases with the labor union based on economic conditions and inflation. SK chemicals also ensures there is no discrimination in compensation based on gender or other factors, adhering to the principle of equal pay for work of equal value. Gender pay monitoring is conducted and disclosed annually. SK chemicals will continue to enhance policies and systems to ensure fair compensation and financial stability for all employees.

Statement of Human Rights Management

Prohibition of Child Labor, Forced Labor, and Human Trafficking

Human Rights Management Report

SK chemicals strictly prohibits child labor, forced labor, and human trafficking. To prevent the occurrence of child labor, the company verifies the age of applicants before hiring. If minors under the age of 18(including students, interns, and trainees) are employed, they are never assigned to night shifts, overtime, or hazardous tasks. Monitoring is in place to ensure that employment does not interfere with educational opportunities. In addition, SK chemicals complies with labor laws to prevent forced labor and trafficking. No employee is forced to surrender identification documents or pay deposits as a condition of employment. The company fosters working conditions that support work-life balance and enable individuals to reach their full potential. Security staff are instructed not to use excessive force or restrict the movement of personnel, as stipulated in the internal security response manual.
As a result of these management efforts, SK chemicals recorded zero cases of child labor, forced labor, or human trafficking in 2024. Provisions prohibiting child labor and forced labor are stipulated in Articles 4(1) and 4(4) of the Guideline for Human Rights Management Execution.

Collective Agreements and Labor-Management Council

SK chemicals fully guarantees the three basic labor rights under the Constitution of the Republic of Korea and labor-related laws: freedom of association, collective bargaining, and the right to strike. No employee is subjected to unfair treatment or discrimination for participating in union activities, and all employees are free to form or join labor unions or other representative bodies. The company maintains cooperative labor-management relations based on trust, conducting collective bargaining with fairness and transparency. Quarterly Labor-Management Council meetings are held to discuss working conditions, health and safety, and other relevant topics. Results of the collective agreements and council meetings are shared with employees and continuously monitored to ensure implementation.

Category	Unit	2024
Average remuneration per employee	KRW million	85
Ratio of total compensation(base salary + performance bonus) for females compared to males	%	71
Proportion of components used in the analysis of the living wage	%	93
Proportion of members receiving wages below the living wage	%	0

Category	Proportion(%)
Proportion of the total workforce across all locations covered by formal collective agreements concerning working conditions	100
Proportion of the total workforce across all locations covered by formally-elected employee representatives(labor unions and labor-management councils)	100

1) A wage set higher than the minimum wage at the discretion of local governments, considering the actual livelihood of workers and the inflation situation

Human Rights Management

Diversity and Non-Discrimination

Approach to Diversity and Inclusion

SK chemicals strives to foster a workplace culture where all employees can grow while being respected, regardless of gender, religion, social status, nationality, or disability. In 2024, the company announced its diversity and inclusion policy through the publication of its first human rights management report, which disclosed key results related to workplace gender equity and employment of persons with disabilities. To prevent discrimination in the recruitment and promotion process, the department dedicated to ethical management conducts an annual audit to identify and eliminate any potential risks of discrimination based on race, gender, religion, or other factors within HR processes. Hiring decisions are made solely based on an individual's qualifications and professional competencies. The company transparently discloses demographic data including age and gender, and the status of employment of persons with disabilities in its annual sustainability reports. SK chemicals also continues to set internal targets to increase the ratio of female employees as part of its broader effort to enhance diversity. In addition, SK chemicals ensures that employees with physical or mental disabilities are not discriminated against and are able to fully integrate into the organization. The company faithfully fulfills its mandatory employment obligations for persons with disabilities and continues to develop appropriate roles that allow them to demonstrate their capabilities in a safe and healthy work environment. As of 2024, a total of 50 employees with disabilities are working across a wide range of positions including facility maintenance, laundry, sales, language support, sports, and the arts. The company remains committed to building an inclusive culture that respects the diversity of all employees.

Gender Pay Equality

Recognizing the importance of gender equality, SK chemicals upholds the principle of equal pay for equal work. Male and female employees receive equal compensation based on performance at both the organizational and individual level, without any gender-based differences. The company reports its gender pay equity statistics under the salary section of the ESG Data in this report.

Prevention and Response Manual for Workplace Harassment and Sexual Misconduct

SK chemicals promotes awareness of gender-related human rights and provides training to prevent workplace harassment and sexual misconduct. Annual online training is provided to all employees, with additional sessions for new hires and experienced employees. In 2024, 100 percent of employees completed this training. When incidents are reported through the ethics management channel, the People Partner Team and Compliance Team 1 initiate immediate investigations with the highest priority placed on the safety and rights of the victim. If the misconduct is substantiated, appropriate disciplinary actions such as dismissal, demotion, suspension, or probation are taken. The company ensures strict separation between the parties involved. In recent years, accessibility to grievance channels has been enhanced by appointing additional female grievance counselors, and measures to prevent secondary harm have been strengthened to protect victims effectively.

Workplace Sexual Harassment and Bullying Prevention and Response Manual

Implementation of a Safe Workplace

02.

IMPLEMENTATION OF A SAFE WORKPLACE

Occupational health and safety in industrial settings is a fundamental responsibility for protecting employee lives and health and is regarded as a core area of risk management, especially in the context of serious accidents and regulatory compliance. As public awareness of safety continues to grow, businesses are increasingly expected to implement proactive and systematic safety and health management systems. SK chemicals comprehensively manages workplace safety and health risks through its Safety, Health, and Environment(SHE) management system. The company promotes a preventive safety culture by operating training programs and emergency response systems for all employees and works to enhance safety standards across the entire value chain, including suppliers.

Safety and Health Principles and Framework

SHE Management Framework

SK chemicals considers safety, health, and environment(SHE) as core values rooted in its people-centered management philosophy. To realize these values, the company has systematically established three key components—core values, operational principles, and the SHE policy—and built a SHE management framework that is integrated into business processes. In 2024, SK chemicals revised its company-wide occupational safety and health management policy to reflect evolving safety and health trends. The revised policy was officially approved by the Board of Directors in February 2024 and is now continuously shared across sites via on-site display monitors. In addition, regular partner collaboration meetings are conducted as part of reminder activities to enhance awareness of safety and health among all stakeholders.

SHE Management System

Recognize people and environment as key values, and create safe and clean environment.

- Actively protect and implement safety, health, and the environment through SHE management, and implement sustainable management by meeting the needs of various stakeholders.

SK chemicals Safety and Health Management System

SK chemicals recognizes that SHE management is a basic element based on human-oriented management principles and strives to achieve the SHE Targets with the ultimate goal of achieving the SHE Mission and creating a safe and clean environment for companies.

SHE Mission

Recognize humans and the environment as core values and pursue the happiness of stakeholders by making decisions that put SHE first.

SHE Target

"Zero" Accidents	• Pursue SHE management above the legal level • Substantial activities of employees • Maintain transparency in accidents
Environmental Conservation	• Comply with environmental laws, agreements and regulations • Reduce pollutant emissions • Efficient use of resources and energy
Promoting the health of employee	• Strengthen activities to prevent diseases and promote health • Ensure safety in handling harmful factors • Improve working conditions
Domestic Top-Tier	• Establish a domestic top-tier level SHE management system • Shared growth through co-prosperity of partner companies • Secure balance of form and content

Ahn Jae-hyun, CEO of SK chemicals

SHE Management System

SK chemicals places the highest value on environmental, safety, and health management. In addition to ISO 45001 certifications already obtained by the Ulsan and Cheongju plants, as well as SK bioscience's Andong plant, SK multi utility and Shuye-SK chemicals(Shantou)Co., Ltd. newly acquired ISO 45001 certification in 2024. As a result, approximately 97 percent of SK chemicals' total consolidated sales and all domestic sites are now covered under ISO 45001 certification. This achievement verifies that the company's safety and health management system aligns with global standards and reflects the company's structured and continuous efforts in safety and health management that have been recognized through external validation.

SHE Roadmap

SK chemicals conducts a common SHE performance assessment with affiliates under SK Discovery, and the SHE target levels are established based on the SHE level assessment of SK Discovery

2025	Maintain SHE target grade A at domestic sites and enhance SHE operational infrastructure and operation capabilities at overseas subsidiaries.
2026	Maintain SHE target grade A at domestic sites and establish SHE operations at overseas subsidiaries(achieving local model site status).
2027	Elevate domestic sites' SHE target grade by +1 grade and achieve SHE target grade B or higher for overseas subsidiaries

Implementation of a Safe Workplace

SHE Management Philosophy

SK chemicals views environment and safety as top priorities in its management agenda. The company selects and implements key tasks to strengthen competitiveness and execution capabilities in these areas. It continuously seeks to align its business operations with environmental management and systematically manages environmental indicators and targets.

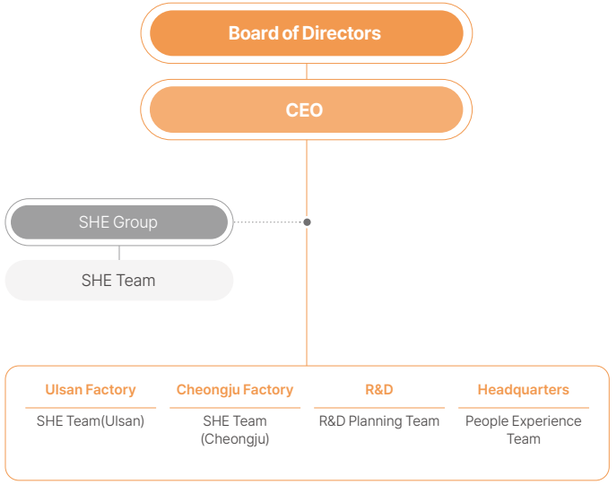
SHE 8 Codes of Conduct

1. All members recognize safety as the top priority in work and must comply with SHE regulations/procedures.
2. All members take ownership and proactively address all unsafe conditions and behaviors in the workplace.
3. Leaders lead by example in SHE and thoroughly conduct member education and workplace management supervision.
4. Thoroughly implement safety measures including risk assessment, installation of protective devices, equipment inspection, and wearing of protective equipment during construction/work.
5. Prevent accidents in advance through continuous/repetitive workplace monitoring(DCS monitoring/workplace patrol).
6. Thoroughly implement safety measures including risk assessment, installation of protective devices, equipment inspection, and wearing of protective equipment during construction/work.
7. Thoroughly ensure compliance with regulations/procedures, safety education, and workplace management supervision to strengthen partner company SHE management.
8. SHE-related improvements in the workplace can be requested at any time and the company takes immediate action.

SHE Governance

To effectively implement systematic SHE management, SK chemicals has established an integrated governance structure centered on the SHE Group, the company-wide dedicated organization. The SHE Group functions as the control tower, responsible for establishing standards and guidelines related to SHE and supporting field-level safety management and accident prevention programs across all business sites. In 2024, the Ulsan Plant deployed SHE staff directly to production teams to reinforce on-site safety execution, while headquarters and R&D centers operate separate SHE systems. Overseas sites are supported with domestic SHE staff and local hires to raise the SHE level across all global operations. Moving forward, SK chemicals will expand the SHE workforce at each site to strengthen regulatory compliance capabilities and broaden efforts to identify and address potential risks. In March 2024, the Board of Directors approved the company's annual safety and health plan. Accordingly, SK chemicals has set the establishment of a "Top-tier domestic SHE management system" as a core performance indicator(OKR) and is focusing on SHE competency assessments, strengthening safety systems for partners, standardizing overseas site SHE practices, and promoting safety culture programs.

SHE Governance



Occupational Safety and Health Committee

SK chemicals operates occupational safety and health committees to actively gather employee feedback and develop practical improvement measures. Committees at the Ulsan Plant, Cheongju Plant, and R&D center, with equal participation from labor and management, held 12 meetings in total in 2024. Quarterly meetings were conducted at Ulsan and Cheongju, and monthly at the R&D center. Since 2023, labor unions at Ulsan and Cheongju have taken a leading role in these meetings, fostering proactive discussions on safety and health activities. At the R&D center, the committee continues to evaluate and implement SHE tasks, core safety rules, and experiment permit systems to enhance operational feasibility.

Proportion of the total workforce across all locations represented in formal joint management-worker health & safety committees

100%

Occupational Safety and Health Commission Operation Status in 4Q 2024

Business Site	Participants	Major agenda
Ulsan Plant	Total of 10 people - Worker : 5 including the union leader - User : 5 people including head of plant	- Installation of workplace personal protective equipment - Sharing of safety awareness level assessment results - Sharing of health promotion program operation results - New process/plant PSM commissioning verification audit result
Cheongju Plant	Total of 14 people - Worker : 7 people including the union leader - User : 7 people including head of plant	- Operation of labor-management joint risk assessment implementation committee - SGC implementation cases - Establishment of hazardous risk factor improvement cases
Research Institute	Total of 12 people - Research Institute's SHE Committee* (*Research team leader/PL and safety officers)	- Implementation of regular safety meetings for each research group - Change of visitor safety rules and emergency evacuation map guidance process - Consultation on changes to weekly laboratory workplace inspection checklist items - Implementation of research institute risk factor blind spot identification campaign

Implementation of a Safe Workplace

Safety and Accident Prevention Activities

Safety Assessments and Environmental Accident

SK chemicals selects and implements annual key SHE upgrade initiatives to proactively manage risks. Based on the Phase 1 SHE Upgrade Master Plan, the company has identified ten core projects and added six new ones for 2024. Customized execution tasks and tailored solutions have been introduced according to site characteristics. In addition, an advanced SHE Control Room was established at ECO Lab and the Ulsan Plant to enable immediate response in emergencies. Legal safety training and competency programs are conducted for employees and partner staff. Emergency response manuals, periodic inspections, and mock drills based on PSM(Process Safety Management) are implemented to strengthen control of potential risks and improve the SHE data management system. In 2024, 15 joint internal and external safety assessments and precision inspections were carried out, leading to enhanced capabilities in identifying hazards and implementing preemptive improvements.

Major SHE Tasks

10 SHE Improvement Tasks

- Respond to changing regulations
- Build SHE capacity
- Secure facility soundness
- Redefine internal SHE system
- Manage risks in construction/ processing
- Establish emergency Response system
- Improve chemical material management
- Manage SHE based on site
- Safety measures for construction/ site
- Improve health management

New 6 Improvement Tasks in 2024

- Strengthen on-site execution capabilities
- SHE Upgrade of business partners
- Improving employees' SHE capacity
- Reinforce emergency response system
- Apply and implement smart safety technology
- Establish SHE system at new business sites

SHE Training Programs

SK chemicals assigns clear responsibilities and authorities to all SHE members and incorporates detailed SHE tasks into company-wide KPIs to encourage organization-wide participation. Diverse training programs are being actively implemented to keep pace with rapid regulatory changes and shifts in management paradigms. At the Ulsan Plant, regular meetings with SHE staff, PSM workshops, and plant supervisor workshops are held to explore site-centered safety improvements and share best practices across sites. These workshops discuss department-specific safety innovation cases and identify measures to improve process safety, including enhancements in protective gear, systems to prevent asphyxiation, anti-slip stair solutions, upgraded CCTV monitoring, and improvements in wastewater identification. New employees receive comprehensive training on the SHE management system, and administrative staff, who have less exposure to safety elements, are provided with practical content such as infectious disease prevention and natural disaster preparedness to elevate safety awareness across the company.

Emergency Response System

The Ulsan Plant has established an integrated emergency response training system linked to its advanced SHE Control Room. Real-time monitoring of the entire training process is conducted through a 24-hour centralized control center, and emergency response scenarios are structured by role to establish detailed response plans.

Safety Inspections and Environmental Accident Prevention

Safety and environmental risk assessment	Implement a company-wide SHE management system and conduct a semi-annual diagnosis plan for each site to assess compliance with obligations set by relevant laws
Safety inspection	Conduct routine inspections of construction sites and high-risk process work to prevent safety accidents
Safety audit	Conduct regular internal audits for ISO and PSM compliance
Safety/Health/Environmental performance assessment	Clarify enterprise-wide KPI guidelines and conduct fair evaluations based on objective data to assess SHE performance at business sites
Safety green card system	At Ulsan Plant, categorize safety management levels using Green, Red, and Yellow cards, and apply this system to regular maintenance and construction site-related companies
Safety 7 rules	Apply seven safety rules aimed at preventing accidents to all members before entering Ulsan Plant

Implementation of a Safe Workplace

Safety and Accident Prevention Activities

Risk Assessment

To ensure a safe working environment, SK chemicals operates a structured risk assessment system that identifies and mitigates potential hazards at each site. Procedures specify the risk rating system, assessment schedule, scope, and approvers. The SHE IT system is used to standardize and centralize assessment formats. At the Ulsan plant, comprehensive risk evaluations are conducted for all operations, while the R&D center focuses on high-risk experiments through a specialized assessment process. The Cheongju Plant conducts customized assessments for non-PSM processes and experiment permit systems. As of 2024, 100% of the company's operations have undergone health and safety risk assessments. These site-specific evaluations help detect potential hazards and implement improvements. Follow-up assessments are conducted to validate the effectiveness of remedial actions. In 2024, AI-based safety risk assessments were rolled out across sites to standardize evaluation levels and improve the effectiveness of risk identification and prevention.

AI-Based Safety Assessment System

In 2024, SK chemicals introduced Korea's first AI-based safety risk assessment system at the Ulsan Plant. This system analyzes accumulated safety documents, experience, and case data from the plant using a GPT-4 language model. It identifies and suggests potential hazards during work processes, enhancing the accuracy and efficiency of safety evaluations. This AI-based approach helps mitigate inconsistencies caused by assessor subjectivity and establishes a standardized risk management system. It also enables pattern recognition and detection of previously unnoticed hazards, contributing to safer management of complex chemical operations. The company will continue to integrate various safety and process data from Ulsan and expand AI usage to improve the efficiency and effectiveness of safety systems.

SK Discovery SHE Diagnostic Results

Since 2022, SK chemicals and its affiliates under SK Discovery have conducted annual SHE performance diagnostics using a shared set of indicators. This process supports efforts to reduce SHE risk and improve safety management across sites. In 2024, the Ulsan Plant achieved an A grade for the third consecutive year, and the Cheongju Plant also earned an A grade. The company aims for all domestic sites to achieve A-grade ratings or higher by 2025.

SK Discovery SHE Assessment

2023	
Ulsan Plant	A Level(Decent, 86.3 points) - Achieve A grade in all fields(common/safety/health/environment) - Improve on-site safety, such as risk assessment and safety work
Cheongju Plant	B+ Grade(Average, 75.2 points) - Improve the field of vision for the previous year - Legal appointment consignment agent/partner management
Research Institute	B+ Grade(Average, 70.1points, new diagnosis) - Good compliance with laboratory safety laws - Risk assessment procedure/SHE responsibility and scope are to be improved

2024	
Ulsan Plant	A Grade(Moderate, 82.2 points) - Operate SHE with a focus on execution to prevent accidents Review work risk assessments to strengthen on - site execution capabilities
Cheongju Plant	A Grade(Moderate, 80.1 points) - Revise procedures and enhance on-site execution capabilities based on shortcomings identified in 2023 - Improve all areas compared to the previous year
Headquarter/ Research Institute	B+ Grade(Moderate, 71.6 points) - Introduce work permit procedures for all tasks within ECO Lab - Focus on managing unit work and experimental planning/risk assessment

Implementation of a Safe Workplace

Safety Activities and Accident Prevention Efforts

Safety Initiatives with Suppliers

To establish a sustainable safety culture, SK chemicals is expanding the scope of safety activities to include not only employees but also suppliers across the value chain. The company provides safety rules and basic knowledge to on-site suppliers through internal SHE management procedures. At the Ulsan site, SK chemicals operates various safety and health programs including risk assessment training and joint safety inspections in cooperation with seven in-house and thirty external suppliers.

Implementation of Supplier Qualification Assessment

In accordance with supplier SHE management procedures, SK chemicals conducts self-assessments for all suppliers at each site on a quarterly basis using seven key occupational safety and health criteria. In 2024, fifteen suppliers related to construction and contracting were assessed. Based on the evaluation results, SK chemicals takes follow-up actions such as developing corrective measures, executive-level interviews, comprehensive safety audits by third-party institutions, and disqualification of on-site suppliers, as specified in the internal SHE rewards and disciplinary procedures. Suppliers failing to meet internal safety standards are subject to strict penalties, including revocation of on-site supplier status. In 2024, two high-risk suppliers with low safety scores were disqualified. Suppliers with excellent safety scores and engaged in high-risk tasks receive additional support, including safety equipment and special safety inspections.

Supplier Safety Management Checks

For suppliers with project costs exceeding KRW 20 million, SK chemicals verifies whether the safety management budget has been appropriately used. The company has also established a safety inspection system through 13 joint inspections, 180 team patrols, and 3,054 on-site supplier inspections.

Identification and Improvement of Workplace Hazards in Supplier Sites

SK chemicals discusses major safety matters through joint inspection committees and supplier feedback channels. The company supports the identification and mitigation of workplace hazards. In 2024, 86 blind spots in contact areas with suppliers at the Ulsan plant were identified through risk assessments, and improvements are underway. In 2025, similar efforts will be extended to identify and address critical risks related to headquarters-based suppliers.

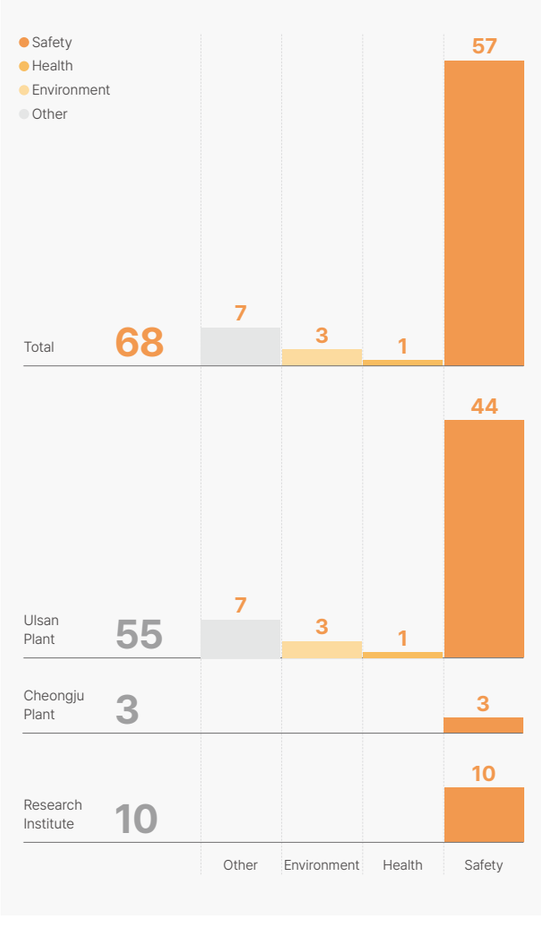
Safety Reporting System

To effectively gather safety-related feedback from employees and suppliers, SK chemicals operates a safety suggestion system. The system is accessible via personal smartphones, enabling users to submit feedback on safety and health issues without time or location constraints. This contributes to identifying potential risks and enhancing the effectiveness of company-wide safety and health systems.

Peer Safety Observation Program

To improve safety awareness among employees, SK chemicals operates the Peer Safety Observation Program. This initiative encourages voluntary participation and aims to foster an interdependent safety culture. Employees are encouraged to closely observe their peers' work behaviors, offer positive feedback for safe actions, and engage in constructive dialogue when identifying unsafe practices. A total of 1,487 peer observations were conducted in 2024. SK chemicals plans to further expand this program to elevate safety awareness across the company.

Safety Complaint Implementation Status in 2024 (number of opinions received) (Unit: Number)



Implementation of a Safe Workplace

Safety Activities and Accident Prevention Efforts

Recognition for Excellence in Safety Management

SK chemicals' Ulsan site was awarded the grand prize in the manufacturing category at the 32nd Safety Management Awards hosted by the Ministry of Employment and Labor. The award recognized the company's accomplishments in establishing a robust SHE management system, strengthening governance, promoting joint labor-management safety culture, and implementing a generative AI-based safety management platform. These efforts demonstrate the company's commitment to prioritizing safety in corporate management.
Activities such as the operation of the Industrial Safety and Health Committee, the establishment of dedicated SHE organizations at both corporate and site levels, AI-driven risk assessments, the safety suggestion system, and employee-participatory campaigns have contributed to reduced accident rates, heightened safety awareness, and improved site safety capabilities.

Health Management Programs

Employee Wellness Programs

Wellness Programs I SK chemicals implements a range of structured wellness initiatives to promote employee health. These include smoking cessation campaigns, daily step count challenges, and obesity management programs aimed at improving physical fitness and preventing lifestyle-related illnesses. The programs contribute not only to disease prevention but also to enhancing work efficiency. The company plans to further develop customized wellness activities tailored to each site to increase participation and foster a healthier organizational culture.

Employee Health Screenings I To support the well-being of all employees regardless of employment type, SK chemicals provides regular health screenings to both regular and contract workers. Special health screenings for exposure to hazardous chemicals are conducted for research personnel. At Ulsan plant, regular noise level assessments and health management for employees are conducted, with reports submitted annually to the Board of Directors. Work environments are managed to ensure noise levels do not exceed 90dB for extended periods, and hearing protection is mandated in high-noise areas. Preventive training and health consultations for noise-induced hearing loss are conducted annually. On-site health offices are operated at each facility to support stress management and hazardous substance control. When necessary, job reassignment is arranged to maintain employee health.

Improvement of Supplier Welfare Facilities I At the Ulsan site, SK chemicals carried out a facility renovation project to enhance the welfare of supplier employees. Aging offices, break rooms, restrooms, and shower rooms used by supplier personnel were modernized to reduce fatigue and improve the overall quality of the working environment. These improvements contributed to providing a healthier and more comfortable workplace for supplier employees.

Chemical Safety Management

SK chemicals provides company-wide training on chemical safety, regulations, handling procedures, and overall management policies. The Pangyo site comprises both office and research facilities, with the latter handling approximately 23,000 types of chemicals and high-pressure gases. Given the inherent risks of chemical leakage and fire, proactive measures are implemented. Researchers undergo training on safe chemical handling and participate in emergency response and fire drills to familiarize themselves with evacuation procedures. The training also covers exposure control, personal protective equipment, emergency response protocols, chronic exposure prevention, and health management. Fume hoods and ventilation systems are installed and regularly inspected to minimize exposure. Work environment monitoring and special health checkups are regularly conducted, with follow-up job reassignment implemented for those identified with health concerns. This ensures continuous oversight of the health and safety of personnel handling hazardous substances.

Employee's Happiness

03.

EMPLOYEE'S HAPPINESS

The importance of fostering talent and creating an environment where employees can be fully engaged is becoming increasingly central to the sustainable growth of companies. SK chemicals is operating a structured system for recruiting and developing talent aligned with its core values of being 'Caring Professional' The company also actively introduces systems that support work-life balance and promotes communication among employees to cultivate a horizontal organizational culture. Through the creation of this environment, SK chemicals aims to establish a virtuous cycle that enhances both employee engagement and organizational productivity, thereby strengthening the company's overall competitiveness.

Human Resource Development

Talent Recruitment

To respond effectively to the rapidly changing business landscape, SK chemicals places emphasis on job fit during the recruitment process to secure skilled professionals. Based on detailed job descriptions, the company has structured screening processes and criteria to objectively verify the qualifications and competencies required by each department. Internship programs and academic scholarship systems are also actively utilized to reasonably identify suitable talent and evaluate job compatibility. After joining the company, employees are recognized for their performance and capabilities through fair and rational performance evaluation and compensation systems. An environment is provided in which all employees can grow as Caring Professional.

Talent Profile

- **Pride**
  Have pride in the meaning and value of your work and speak and act positively about it.
- **Knowing my work**
  Continuously study customers, technology, and the market, and clearly define your tasks in connection with organizational goals.
- **Setting challenging goals**
  Set ambitious goals to achieve excellent results and strive to accomplish them.
- **Thorough and enjoyable execution**
  Work meticulously and thoroughly with a sense of ownership, yet maintain enjoyment in the process.
- **Sense of community**
  Foster emotional connections among members and organizations and actively support the growth of others.
- **Mutual consideration**
  Listen to others' opinions, even when they differ from your own, based on trust and interest in your colleagues.
- **Knowledge sharing and capability development**
  Continuously strive to enhance capabilities and share the experiences and knowledge gained from work.

Talent Development Roadmap

SK chemicals continuously pursues the development of Caring Professional and operates a phased support framework based on competency and performance. Each phase is defined by specific durations and goals and is supported through a competency-based development system tailored to job roles. Until 2022, a competency and performance-focused development approach was implemented by establishing a job competency framework and providing tailored training. From 2023, the company began supporting self-directed learning and structured a system that promotes capability building aligned with business strategy, which continues into 2024. Beginning in 2026, SK chemicals plans to structure development programs around functional units that group employees by job characteristics. By providing tailored growth programs and career paths at the unit level, the company aims to meet diverse development needs.

Phase 1.0 ~2022 **Fostering talents based on competency/ performance**	Alignment of competencies and education and provide training support to develop educational content		
	2020~ Reformed the job system /launched mySUNI	2021~ Achieved goal of having 100 hours of training on mySUNI	2022~ Fostered talents based on competencies
	Self-design by organization/individual	Support practical self-directed learning for employees	
Phase 2.0 2023~2025 **Fostering competency based on business strategies**	Define and foster the talent and competence needed to achieve business strategy		
	Assess level of competency that we have/will need in the future	Design system to secure competencies on demand	Upgrade HR system to focusing on competency and skills
	Clarify the directions for strategic fostering of talents	Provide directions for employees to strengthen their competency	
Phase 3.0 2026~ **Fostering based on segments**	Organize fostering by each segment / Identify talent areas to foster based on skill data / Provide career development training /		
	Define the target level for job mastery by unit organization	Provide development programs to acquire necessary skills	Provide work experiences to grow into a job master
	Support career design of the employees		

Employee's Happiness

Competency Development Programs

To achieve the successful execution of company-wide OKRs and business strategies, SK chemicals is strengthening core capabilities such as global expansion, technological innovation, and partnership development. Various programs are operated to support employee growth, focusing on six major areas: leadership development, job expertise, key talent development, onboarding support, digital transformation capability enhancement, and the fostering of a self-driven learning culture to respond flexibly to a fast-changing internal and external environment.

Expansion of General Competency Training I In 2023, SK chemicals introduced an AI-based Skill Platform to support personalized learning and enable employees to pursue self-directed education effectively. The platform recommends approximately 1,900 internal and external courses across 15 categories based on employees' interests. By the end of 2024, more than 80% of all employees had registered their preferred skills, and the company plans to ensure that over 30% of all employees use the platform to create and follow through with their learning plans.

Leadership Training I Training sessions are conducted for leaders to strengthen understanding of company-wide OKRs and workforce management. In 2024, the company held workshops centered on group activities to discuss organizational structure and talent management strategies for achieving company-wide objectives.

Development of High-Potential Employees I SK chemicals provides all employees with a variety of opportunities to develop the knowledge and skills required for their roles. Employees selected as high-potential talent through fair processes and in-depth discussions are offered the chance to pursue degree programs at domestic or international universities or specialized institutions to enhance their job competencies. Financial support is also provided to ensure they can focus on their studies.

Support for Degree and Certification Acquisition I To enhance professional competencies, SK chemicals operates a system that supports employees in obtaining degrees and certifications. Employees selected through internal evaluation receive tuition support to pursue academic degrees or professional certifications relevant to their job roles, helping them grow into recognized experts in their fields.

Employees' Capacity-Building Program Operation Status

Category	Purpose	Name	Key Details	Training Method
Self-directed learning	• Promote individual growth through strengthening employees' capabilities and sharing knowledge, thereby enhancing company-wide competitiveness	mySUNI	• Composed of an online environment in which personalized course in line with one's capabilities and optional skill development followed by leaders' coaching, backed up by content of diverse topics, as the group-wide all-time learning platform	Coaching
Leadership training	• Improve the overall competitiveness of the organization by demonstrating leadership and strengthening management capabilities in performance, organization, and talent management for leaders and prospective leaders	Leadership training	• Implement for the sake of nurturing coaching leadership for performance, organization, and talent	Coaching, team/network
		New leader course	• Recognize the change in the role of the team leader and implement with the aim of cultivating the management and leadership capabilities necessary for the leader	Coaching, team/network
		Training for the newly promoted	• Strengthen readiness as a leader by recognizing the new roles and required competencies demanded by changes in job position	Coaching, team/network
Job training	• Strengthen employees' job competency and global communication skills to contribute to overall job performance capabilities	Upskilling	• Provide various educational opportunities linked to the job and competency framework to develop the knowledge and skills required for task performance. Actively support participation in external education, in addition to internal training, to enhance job competencies	Coaching, team/network
		Language education support	• Provide tailored educational courses and language support funds for executives, candidates for overseas assignments, employees involved in relevant tasks, and general staff to achieve company-wide business goals and enhance globality	Coaching, team/network
Key talent nurturing	• Foster key talents with job skills and preemptive leadership to respond to changes in the future management environment, implement deep changes in the organization, and lay the foundation for sustainable growth	Key talent nurturing program	• Support tailored programs for next-generation key leader candidates. Develop core talents needed to execute deep change through upskilling, future competency development, and proactive leadership cultivation in response to evolving business environments	Coaching, team/network
		Degree acquisition support	• Provide educational opportunities for members selected as outstanding talents through fair procedures and in-depth discussions to develop job competencies at domestic and international schools and professional institutes. Implement financial support to allow members to focus solely on their studies during the education period	Coaching
		Certificate Acquisition Support	• Implement a certification acquisition support system to enhance members' professional job competencies. Provide an environment that allows individuals to grow into recognized experts in the market through self-directed efforts	Coaching
Onboarding	• Help new and experienced recruits understand the organization's management philosophy and the industry and adapt to the organization early	Newcomer training	• Implement programs aimed at understanding the management philosophy, industry, and products of the group and SK chemicals and developing basic business competencies. Support early capability development through mentoring programs	Coaching, team/network
		New recruit training	• Support understanding of the culture and working methods of the group and SK chemicals, and facilitate the integration of their management philosophy	Coaching, team/network
DX capacity building	• Understand new ways of working in the digital age and secure basic capabilities to lead digital transformation through AI and data analysis	DX Change management training	• Leaders(Executives, team leaders): Enhance digital leadership and improve digital problem-solving skills to build a data-driven work culture • Members: Learn digital problem-solving processes and apply them to work tasks	Coaching
		PBV(Project Based Value Creation)	• Develop personnel with business domain knowledge and data analysis skills to derive data-driven solutions for real-world problems	Coaching, team/network

Employee's Happiness

Human Resource Development

Other Training Programs

Digital Transformation Programs

Digital Collaboration and AI Tools Training I SK chemicals is delivering digital competency training through SK Group's online education platform, "mySUNI," to enhance employees' capabilities in digital technologies and AI applications. Instructional videos are provided on how to use productivity tools such as Teams and AI solutions, and training is offered to all employees including contract and part-time staff. In addition, field training on Microsoft Teams usage is provided at production plants to ensure that site engineers can also incorporate the tools into their operations.

Support for AI-Based Data Analytics Projects I SK chemicals provides tiered AI capability training, along with mentoring and coaching to help employees identify and implement improvement projects using AI. Since 2023, employees in production, R&D, and support departments have undertaken AI-based enhancement tasks through data analysis in their respective work environments. One such project on AI-based SHE task risk assessment was successfully implemented at the Ulsan site and led to a patent application. Furthermore, SK chemicals sold a license and the source code and business rights of its AI model to UDM Tech, a company specializing in application software development using machine learning technologies. The license deal generates fixed annual revenue of KRW 80 million, in addition to operational cost-saving effects. In 2024, nine AI-applied projects were conducted across production and R&D to further enhance operational efficiency.

Retiree Support Program

SK chemicals operates a retiree support program to assist employees in planning their future and transitioning their careers smoothly after retirement. For employees other than executives, the program provides in-person career counseling and job placement support. For executives, the program offers one-on-one career coaching and a variety of courses to support change management.

ESG Training Program

Internalization of ESG Through Education I To foster ESG integration across the company, SK chemicals conducts ESG-related training linked to its HR systems. In 2024, education programs covering topics such as Net Zero, supply chain, LCA, and global environmental regulations were offered through the SK Group's online learning platform, "mySUNI." Completion of ESG courses was incorporated into the KPI framework for team leaders, with a target set for 70% of team members to complete the courses. As of 2024, 51% of employees have completed the ESG program. To enhance accessibility and engagement, ESG newsletters were also distributed covering a wide range of sustainability topics in a more digestible and engaging format.

Climate Regulation Response Training I SK chemicals provides training to ensure that employees can adapt to changes in the work environment resulting from climate change. As ESG disclosures increasingly require financial impact analysis, collaboration between the finance and ESG departments is essential. In 2024, SK chemicals delivered training to accounting and ESG teams on regulatory disclosures and financial impact assessment of climate change. For production staff, training was conducted on Net Zero implementation strategies, fuel switching operations, and carbon reduction facilities. Sales teams are also participating in environmental regulation seminars to shift from petroleum-based product sales to recycled and bio-based alternatives in response to market changes.

Cultural Training

As SK chemicals continues to expand product sales to customers in various countries and broaden its presence through overseas sales offices and production sites, cultural training is provided to promote smooth communication with global customers and employees from diverse backgrounds.

Global Training I To strengthen understanding of local contexts for employees stationed abroad or interacting with international customers, SK chemicals provides regional learning contents through SK Group's online platform, "my SUNI." A total of 57 programs are available, covering successful business cases, culture, and history in regions such as China, the United States, Japan, and Europe. These programs are designed to nurture regional experts capable of achieving business success across diverse global markets.

Training Hours per Type in 2024[1)]

Type	Training hours	Training hours per person	Key details
Environmental training	5,114	14	Climate change response, GHG reduction, hazardous materials management, waste management, etc.
Fair trade/business ethics	984	1	Anti-corruption, anti-competition, ethical issues per business
Human rights/sexual harassment prevention training	3,219	2	Workplace bullying and sexual harassment, diversity, non-discrimination, awareness improvement for disabled individuals, etc.
Industrial safety training	17,663	16	Serious Accident Punishment Act, safety rules, PSM, etc.
Job-related training	75,932	69	Varies by each job role

1) The scope of training data includes SK chemicals, ENTIS, SK chemicals Daejeong, SK multi utility and SK chemicals overseas subsidiaries

Employee's Happiness

Human Resource Development

Human Resource Development Process

HR Strategy

Strategic Workforce Planning

The company establishes workforce plans by job group and function in alignment with the company-wide OKR and business strategies. It defines the required competencies and experience for each role and systematically applies tailored strategies for recruitment, operations, and compensation according to the workforce classification model. Short- and mid-to-long-term plans are also established for each workforce segment to support business performance and build an optimal workforce structure.

Recruitment

Recruitment Strategy and Sourcing Methods

SK chemicals focuses on securing recruitment capabilities based on data to identify talents who align with the corporate culture and values and who also possess job expertise and growth potential. The company is developing a process that enables accurate assessment of competencies using data collected through AI competency diagnostics. A variety of interviewers, including both team leaders and members, are involved to evaluate job-specific expertise from multiple perspectives. Recruitment channels include public job postings, academic conferences in the field of chemistry, research lab networks, internal referrals, and direct sourcing. These structured procedures ensure fairness and prevent potential bias or discrimination throughout the hiring process.

Turnover Risk Management

SK chemicals conducts regular meetings at the company and division levels and operates anonymous feedback channels to identify employee concerns and incorporate them into HR policies. For high-performing employees, the company proactively identifies turnover risks and provides continued development support through personalized development plans and mentoring programs with executive-level mentors.

Competency Development

Competency and Skills Development Based on Market Data

In 2023, SK chemicals piloted the Skill Platform to identify the competencies and skills needed by employees. The company then benchmarked this data against industry peers to analyze capability gaps. Based on the findings, customized learning paths are recommended, and plans are being developed to address skill areas where the company lags behind. For each role, required skills and target levels are defined, and a Talent Map is created by assessing individual competencies, enabling the company to implement a structured development framework.

Performance Appraisal

Performance Measurement

SK chemicals uses an absolute performance evaluation system to fairly assess employee competencies and achievements. This system relies on structured and objective performance management processes. Employees establish annual goals and track progress through four formal check-ins each year, receiving feedback throughout. Final performance evaluations are conducted at the organizational level based on the accumulated data, with procedures in place to handle appeals. The use of data and dialogue in the evaluation process ensures fairness and helps prevent discrimination in promotion decisions.

Identifying Competency Gaps

SK chemicals conducts separate assessments for performance and competency, rather than combining them into a single score. Performance evaluations are linked to incentive bonuses based on business results, while competency evaluations are used to determine annual salary increases. Competency assessments cover both company-wide common competencies and those specific to job groups, enabling comparison of individuals within the organization and their peer groups. Based on these results, annual training plans are formulated to address competency gaps. In 2024, the company evaluated competencies for agile organizations and enhanced its development systems to adapt to internal and external changes.

Communication

Strengthening Internal Communication

SK chemicals promotes cross-functional communication and knowledge sharing through various internal IT collaboration tools. Additionally, department heads hold regular meetings to facilitate open dialogue. These meetings serve as a forum for collecting employee feedback and exploring ways to improve areas such as employee well-being, business performance, organizational culture, and HR systems.

Employee's Happiness

Creating a Desirable Work Environment

Work-Family Balance Systems and Programs

To support employees in achieving a balance between work and life while working efficiently and autonomously, SK chemicals has implemented various programs and policies. The company is also committed to creating an environment in which employees can stay focused and immersed in their work.

Expansion of Work Flexibility

SK chemicals introduced a work management system called 'Flex' that enables employees to autonomously manage their work schedules. This system allows employees to record their working hours accurately and systematically while providing an environment in which they can maximize their capabilities. To help balance peak and low workloads, the company actively encourages the use of a monthly selective working hours system, allowing employees to adjust their working hours flexibly within each month. Additionally, SK chemicals operates a staggered working hours system, enabling employees to freely adjust their daily start and end times within the framework of the standard 8-hour workday. A remote and telecommuting system is also in place, allowing employees to choose the optimal location for efficient work performance. In cases where unavoidable overtime occurs, SK chemicals ensures such time is recorded through its internal system, and additional compensation is provided for fixed overtime beyond the regular hours.

Activation of Leave Utilization

SK chemicals has established leave systems that employees can use collectively or at their discretion to help ensure a healthy balance between work and rest. Employees are guaranteed paid annual leave in accordance with the Labor Standards Act and other legally mandated leaves under the Equal Employment Opportunity and Work-Family Balance Assistance Act. In addition, summer vacation, family event leave, and long-term leave are provided based on labor-management agreements. In 2021, a long-term leave program was introduced for employees who reach a designated length of service. This system includes financial support during the leave period to encourage rest and personal development and to support a smooth return to work.

Support for Family-Friendly Activities

SK chemicals is committed to enabling employees to maintain a healthy work-life balance and experience fulfillment in both their professional and personal lives by operating a range of family-friendly systems.

Parental Leave I To help address the challenges of low birth rates and alleviate the burden of childcare for employees, SK chemicals actively promotes the use of parental leave. The company encourages both male and female employees to utilize this system. In 2023, eight male employees took parental leave, and in 2024, the number increased to ten.

Spousal maternity leave I SK chemicals operates a system that guarantees 20 days of maternity leave when a spouse gives birth to a child.

Reduced Working Hours During Childcare Period I To support employees during pregnancy and early child-rearing stages, SK chemicals offers a reduced working hours system for up to one year.

Support for Family Life I To prevent career interruptions, SK chemicals operates an in-house daycare center. The company also supports financial stability by providing benefits such as educational support for children, congratulatory payments for school admission, and housing support. Employees are also offered up to four nights of resort accommodation per year to enjoy leisure time with their families.

Medical Support I SK chemicals provides medical expense support for employees, their spouses, children, and parents in the event of illness or injury. Additionally, the company offers medical consultations and health check-ups to promote the well-being of employees and their families.

Work-Family Balance Support Program Operation Status

Category	Support Program	Details
Flexible workhours	Flexible work system	A system to adjust commuting hours while complying with daily working hours(8 hours)
	Remote working/ Working from-home arrangements	A system for performing duties by selecting an optimal place of work for efficiency
	Flexible working	A system that adjusts one week or one day's working hours to the extent that one week's working hours do not exceed 40 hours
Family orientation	Parental leave	A legal leave system that can be used by executives and employees with children under the age of 8 or in the second grade of elementary school(within 18 months, can be split into three sessions) - Period of paid parental for main caregivers : one year - Period of paid parental for non-main caregivers : one year
	Spousal maternity leave	A system that grants 20 days of maternity leave when one's spouse gives birth
	Reduced working hours during childcare	A system that reduces working hours for childrearing employees(one year)
	Childrearing support	A system for supporting children's school expenses and congratulatory reward for children's admission
	Lactation and relaxation facilities	Operate dedicated lactation rooms and provide amenities such as breast milk storage refrigerators
Employee benefits	Financial support	Provide transportation expenses, welfare points, housing purchase and rental loans, housing support for employees working outside their home region, and operate a retirement pension system
	Healthcare support	Support regular health check-ups, medical expenses support(including spouses and parents), organic food support, health care office/in-house dental operation, and psychological counseling program "Todak Todak"
	Hobby/leisure	Support for condominium, operate fitness center, and in-house support for community activities
	Other	Provide long-term service awards, relaxation spaces, maternity protection facilities, etc.

Employee's Happiness

Creating a Positive Work Environment

Welfare Program

SK chemicals continues to strive to help employees enjoy a fulfilling professional life and a comfortable daily routine through a wide range of welfare programs.

Financial Support I SK chemicals provides employees with transportation expenses and welfare points, along with housing loan support and housing cost assistance for employees working in non-metropolitan areas. In addition, SK chemicals operates a defined benefit(DB) retirement pension plan to ensure the retirement benefits of former employees. As of 2024, a total of 1,328 employees are enrolled in the retirement pension plan, and the total operating amount based on SK chemicals' standalone financials reaches KRW 152 billion.

Health Management I To support daily health management, SK chemicals offers regular health checkups and medical expense support and promotes employees' physical wellness through a variety of programs such as providing organic foods, operating a health management center, and running an in-house dental clinic. In addition, since 2021, SK chemicals has been running a psychological counseling program in cooperation with an Employer Assistance Program(EAP) provider to effectively manage psychological stress caused by COVID-19, as well as personal and work-related stress. Emotional support for employees is also strengthened through a psychological counseling program called "Todak Todak," offered in both face-to-face and remote formats. Satisfaction surveys from participants indicate a high level of satisfaction with the program.

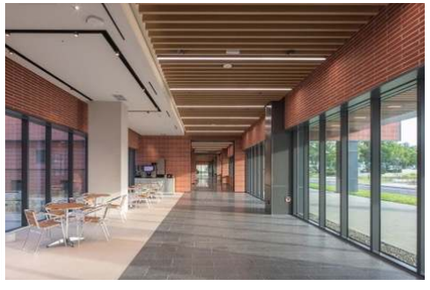
Hobbies and Leisure I SK chemicals supports employees in enjoying a healthy and enjoyable life outside of work by providing access to company-affiliated condominiums, operating a fitness center, and supporting in-house club activities.

Others I SK chemicals also offers programs and facilities to support employees in maintaining a sustainable and enjoyable work life, such as awards for long-term service and the provision of rest areas. Notably, the Ulsan Plant's office building, "The BRICK Wall," received the Grand Prize at the Ulsan Metropolitan City Architecture Awards in 2024. The interior and exterior spaces are connected through landscaping, creating an environment where nature can be felt even within the plant. This design provides plant workers with a comfortable space for rest. In addition, SK chemicals operates a dedicated nursing room within the company, equipped with refrigerators for breast milk storage, among other features. These maternal protection facilities are designed to support female employees with children.

ECO Fit: SK chemicals' fitness center located within the ECO Lab

G House at SK chemicals Ulsan Plant

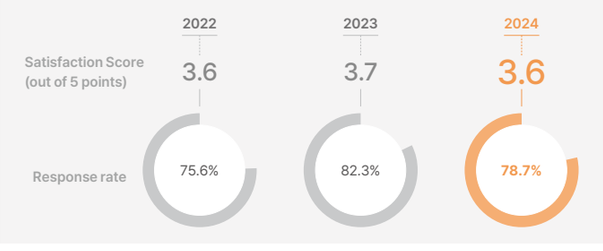
Office Building(The BRICK WALL) at SK chemicals Ulsan Plant



Employee Participation and Communication

Employee Communication Programs I SK chemicals is operating various communication programs tailored to each business division to foster a happy organizational culture through smooth communication among employees. One representative example is the "G+" and "L+" programs, which allow the CEO and all employees to share major management topics. In addition, "Town Hall Meetings" are held at the department and team levels, where leaders and employees discuss and share current issues. Regular workshops are also conducted to facilitate consistent dialogue with employees. These activities are promoted within the company through posters and internal letters to encourage active participation and interest from employees.

SK chemicals' culture survey[1] I SK chemicals conducts a "Culture Survey" annually for all employees, subsidiaries, and affiliates. This survey assesses various aspects including awareness and understanding of SK Group's management philosophy, understanding of social value measurement, employee happiness, and the concept of a sustainable management community. Based on the survey results, SK chemicals identifies the level of organizational culture and implements necessary improvement tasks to enhance employee happiness and guide the direction of the company culture. In the 2024 survey, out of a total of 1,014 targeted participants, 798 responded effectively. The average score for items evaluating employee happiness, mental stress and physical health, job satisfaction, and sense of purpose in the 2024 Culture Survey was 3.6 out of 5, which is a decrease of 0.1 points from the previous year's score of 3.7.



1) Data calculation scope: SK chemicals, SK chemicals multi utility, ENTIS, SK chemicals Daejeong

Quality Management & Customer Satisfaction

04.

QUALITY MANAGEMENT & CUSTOMER SATISFACTION

In the global industrial environment, the quality of products and services is a critical factor in corporate competitiveness, and customer satisfaction forms the foundation of sustainable growth. In manufacturing and pharmaceutical industries in particular, quality-related risks directly affect customer trust, necessitating enterprise-wide quality management and a customer-centered approach.

SK chemicals operates a quality management system based on ISO 9001 and GMP and prevents quality issues through a product tracking system and automated process control. Customer complaints are handled through a prompt reporting and resolution system. In the pharmaceutical business, trust is enhanced through improvement initiatives that reflect safety information and customer feedback.

Quality Management in the Green Chemicals Business

Quality Management Policy and Performance

In October 2018, SK chemicals established a dedicated QA team, integrating quality certification and toll manufacturing management across all production sites, thereby strengthening its quality management capabilities and establishing relevant procedures and systems. Since 2019, the QA team has systematically maintained the quality management processes of the Ulsan Plant. Following the initial acquisition of ISO 9001 certification in 1994, the certification was renewed in 2024 and remains in effect. The plant also uses barcode systems and automated shipping systems to track and manage products, which helps minimize customer complaints by integrating these tools into quality control. The Ulsan Plant strives to achieve zero claims and complaints by continuously enhancing quality control.

Customer Satisfaction System and Results

SK chemicals holds regular quality evaluation sessions with customers to identify areas for improvement and integrate those improvements into the production system. By applying digital transformation(DT) to streamline product and service delivery processes, the company actively practices quality management. It also conducts regular customer satisfaction surveys to analyze satisfaction by customer segment and uses these insights to drive product and service improvements that deliver new value to customers.

Customer Satisfaction Surveys

To assess and improve the service level of the Green Chemicals business, SK chemicals has conducted annual customer satisfaction surveys since 2022 in collaboration with Korea Management Association Consulting(KMAC). These surveys target customers representing 70 percent of total revenue. In 2024, the overall satisfaction score reached 88.1 out of 100, indicating a strong performance. The results of these surveys are incorporated into the KPIs of executive management and managed at the business division level to continuously improve customer satisfaction.

Customer Satisfaction Survey Result

Year	2022	2023	2024
Score(Point)	84.0	86.4	88.1

Quality Management in the Life Science Business

Quality Management Policy and Performance

The Cheongju Plant(S HOUSE), responsible for SK chemicals' pharmaceutical manufacturing, has operated in compliance with Good Manufacturing Practice(GMP) standards since 2015. Based on risk analysis, the plant has implemented a quality management system tailored to the product lifecycle and thoroughly manages all manufacturing processes through internal and external audits, non-conformance management, periodic product reviews, out-of-specification management, and customer complaint handling. In addition, since June 2021, the plant has used the Safety Information Reporting System(SIRS) to collect and share all relevant safety information with regulatory authorities and partners. The Andong vaccine plant(L HOUSE), operated by SK bioscience, obtained GMP certification from the Korean Ministry of Food and Drug Safety following its completion in September 2014. In 2021, the facility also achieved EU GMP certification from the European Medicines Agency, enabling entry into the European market.

Quality Management in the Pharma Business

SK chemicals' Pharma business prioritizes reflecting customer complaints in quality improvement efforts to enhance customer satisfaction. The company operates a customer support center to collect real-time feedback on usage difficulties or adverse effects and follows a structured complaint resolution process based on internal procedures. All feedback is recorded in a centralized database and is reported monthly to relevant stakeholders including marketing, production, R&D, and quality control teams, as well as top management. This ensures that insights are actively reflected in improvements such as regulatory compliance, packaging revisions, and product enhancements. When customer feedback includes concerns about product quality, the company conducts immediate recalls and ensures that quality control managers inspect the product to prevent recurrence. These actions demonstrate SK chemicals' commitment to prioritizing customer safety.

Increase in Access to Medicine

05.

INCREASE IN ACCESS TO MEDICINE

As the global population ages and the incidence of chronic diseases rises, the burden of healthcare costs has emerged as a major social issue. SK chemicals is actively pursuing research and investment to provide a diverse range of treatment options. These efforts aim to reduce socioeconomic costs and contribute to improving public health and quality of life.
The company is securing growth engines for sustained R&D by expanding its pharmaceutical portfolio with innovative formulations such as orodispersible films(ODF) and transdermal patches. It is also accelerating open innovation through expanded collaborative partnerships and project outcomes.

Creating Social Value Through R&D and Investment

C(D)MO Business Expansion Through Global Pharmaceutical Partnerships

In 2023, SK chemicals signed a contract manufacturing and supply agreement with AstraZeneca for Sidaphvia, a diabetes treatment. This strategic partnership leverages the strengths of both companies to address important social healthcare issues. Under this agreement, SK chemicals is responsible for the production and supply of Sidaphvia, while AstraZeneca will act as the Marketing Authorization Holder(MAH) for future commercialization of the related combination drug, Forxiga. Through this collaboration, SK chemicals' pharmaceutical technology and manufacturing capabilities have been recognized globally, laying the foundation for supplying pharmaceuticals to a broader range of countries. The partnership not only demonstrates commercial success but also represents an innovative approach to sustainable growth that fulfills the company's social responsibility. SK chemicals will continue to pursue similar partnerships as part of its commitment to creating positive societal impact.

Improved Treatment Convenience via Formulation Enhancements

The Parkinson's disease treatment Ongentys Capsule(ingredient: opicapone), launched in October 2020, offers once-daily dosing, significantly improving convenience compared to existing treatments that require multiple daily doses. This also reduces patients' economic burden. In January 2023, SK chemicals launched Teglutik Oral Suspension(ingredient: riluzole) for amyotrophic lateral sclerosis(ALS). Unlike conventional tablets, the liquid formulation alleviates the difficulty in swallowing commonly experienced by ALS patients. The company plans to continue expanding its portfolio of treatments for rare and intractable diseases while enhancing treatment efficacy and convenience to further improve access to medicine.

Licensing and Product Approvals Through R&D

SK chemicals continues to develop rare and intractable disease treatments to improve the health and quality of life of patients and their families. In Korea, rare diseases are defined as those affecting fewer than 20,000 individuals, and treatment and diagnosis often impose heavy financial burdens on patients and increase societal costs. To address these issues, SK chemicals has acquired a global license for a new treatment targeting intractable neurological disorders, improving domestic patients' access to effective therapies. In 2024, the company launched Suvexx, a migraine combination treatment that combines sumatriptan, a commonly used triptan-class drug, and naproxen sodium, a non-steroidal anti-inflammatory drug(NSAID). Suvexx is the first dual-ingredient migraine medication introduced in the Korean market. Additionally, SK chemicals released Toszet-A, a triple-combination treatment containing one antihypertensive ingredient and two lipid-lowering agents. This medication combines amlodipine besylate(for hypertension), ezetimibe, and atorvastatin calcium trihydrate(for hyperlipidemia), and is the first of its kind in the domestic market. Toszet-A improves dosing convenience with a once-daily tablet and reduces the financial burden on patients.

1) orxiga(active ingredient: dapagliflozin) and sitagliptin, used as a type 2 diabetes treatment for adults over 18 years old.

Increase in Access to Medicine

Strengthening Social Responsibility Activities in the Medical Field

Enhancing Social Contribution Activities

SK chemicals is collaborating with the social venture SoundMind and the Happiness Foundation to address dementia, a growing social issue, by distributing and operating the cognitive and language training program <SoundMind> at day care centers across the country. <SoundMind> is an AI-based digital cognitive improvement program that uses proprietary voice recognition and artificial intelligence(AI) technology to help alleviate and delay dementia symptoms in the elderly and those with mild cognitive impairment. Since the launch of this social contribution program in 2022, it has been introduced to 178 day and night care centers, primarily in metropolitan areas and near business sites. A total of 1,912 elderly participants have recorded 24,391 hours of usage. Post-assessment results using the program's proprietary cognitive measurement tool showed an average increase of 4.6 points compared to pre-assessment scores. When converted to K-MMSE(Korean version of the Mini-Mental State Examination), this corresponds to an increase of 2.76 points, which is equivalent to a 4.6-year delay in natural cognitive decline.

In 2025, marking the fourth year of distribution, SK chemicals plans to further activate the cognitive training program and provide dementia awareness education to improve public understanding and access to information. In addition, the company is operating a donation program through its Smart-Key medical information platform. Medical professionals participating in the platform accumulate points through their activities, which are then used to make donations to the Korea Pediatric Leukemia Foundation. Since 2021, a total of KRW 37 million has been donated to support surgery and treatment costs for leukemia patients.

SK chemicals will continue to fulfill its social responsibilities in the medical field by strengthening social contribution initiatives that leverage its core capabilities, including its medical information platform.

Outcomes of the digital cognitive training project

Number of organization

134

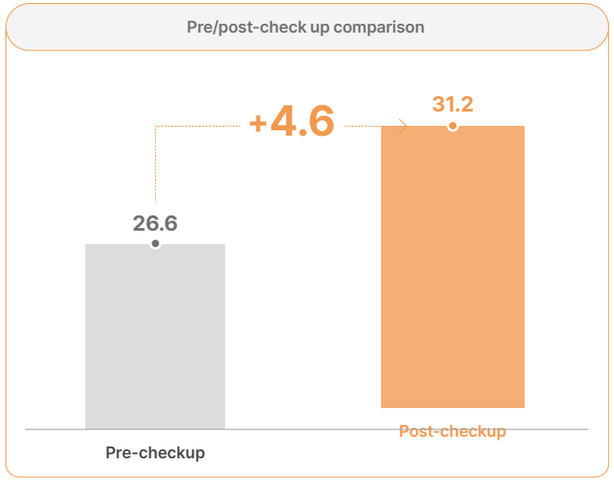
Current participating organizations

109

Slowed cognitive decline and dementia prevention effect

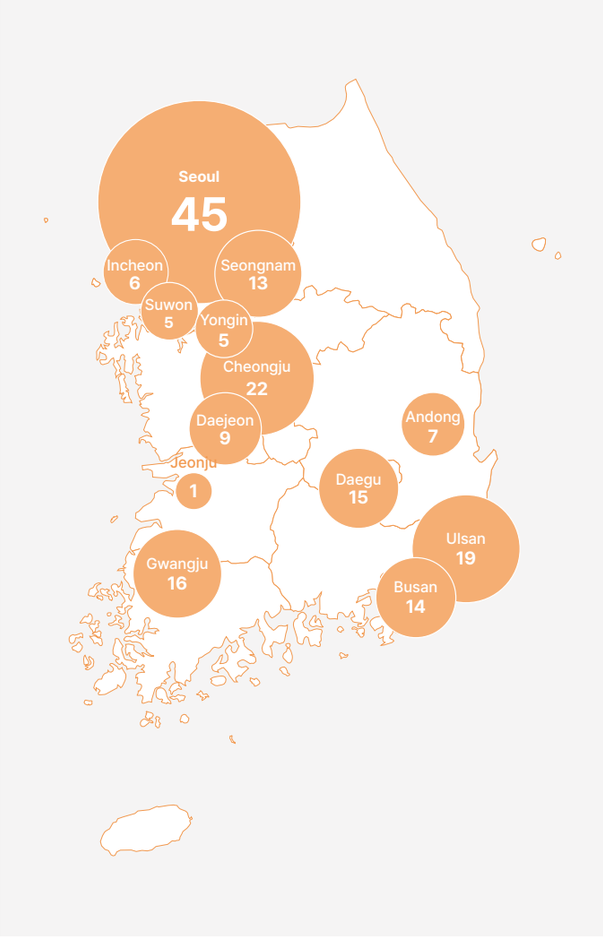
- A post-checkup increase of 4.6 points compared to pre-checkup, indicating a delay in natural aging by 4.6 years

* Based on K-MMSE, there was an increase of 2.76 points (with natural decline of 0.6 points per year)



* MMSE: An abbreviation for Mini-Mental State Examination, which is a standardized tool used to quickly and simply assess cognitive function and potential dementia in the elderly.

Distribution status of the SoundMind program



Responsible Supply Chain Management

06.

RESPONSIBLE SUPPLY CHAIN MANAGEMENT

As ESG risks such as human rights violations and corruption occurring in global supply chains increasingly affect corporate sustainability, the management of ESG risks across supply chains and the importance of establishment of transparent procurement systems are being strengthened worldwide. In particular, the importance of "responsible procurement" is growing, which takes into account the ESG performance of suppliers

SK chemicals is proactively managing ESG risks across the supply chain while building a sustainable procurement system based on mutual growth with suppliers. The company strengthens ESG capabilities in the supply chain through practical support and communication, including ESG evaluation-based purchasing contracts, education and financial support for suppliers, win-win cooperation meetings, and communication hotlines.

Supply Chain ESG Management Policy and System

Supply Chain ESG Management Policy

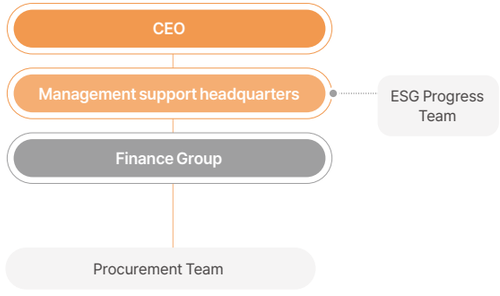
Supply Chain ESG Management Policy

SK chemicals established the Supply Chain ESG Management Policy in 2024 and published it on its website to conduct sustainable business with suppliers that can contribute to resolving social and environmental issues. Through this policy, SK chemicals recommends its suppliers to comply with international human rights principles such as the Universal Declaration of Human Rights and the ILO Core Conventions[1] across the supply chain. The company also sets a clear definition and standard for green procurement and aims to expand the purchase of raw materials that meet these standards. It discloses the criteria for identifying key suppliers based on ESG screening results, supplier code of conduct, support programs, and grievance handling procedures. SK chemicals has established a supplier code of conduct that includes recommendations regarding labor and human rights, environment, ethics, safety and health, and management systems. All suppliers are required to submit a signed pledge of compliance with the code when entering into new contracts or renewing existing ones and are encouraged to familiarize themselves with its content.

Supply Chain ESG Management System and Roadmap

SK chemicals annually updates its mid to long-term supplier ESG risk management plan to enhance operational stability and supports the establishment of ESG policies and self-assessments by suppliers. The company plans to expand the scope of suppliers and evaluation areas in response to external regulations such as the EU Supply Chain Due Diligence Directive. It clearly defines the responsibilities and roles of relevant departments. The ESG promotion and procurement teams handle policy development and implementation of ESG-related processes. ESG matters are reported to the ESG Committee under the Board of Directors, which oversees and monitors supply chain ESG issues. ESG evaluation performance is incorporated into the KPIs of procurement team executives, and regular ESG education is provided to relevant departments to enhance supplier management capabilities.

Supply Chain ESG Management Organization



1) This refers to the Freedom of Association and Protection of the Right to Organize Convention(No. 87), the Right to Organize and Collective Bargaining Convention(No. 98), the Forced Labor Convention(No. 29) and the 2014 Protocol, the Abolition of Forced Labor Convention(No. 105), the Minimum Age Convention(No. 138), the Worst Forms of Child Labor Convention(No. 182), the Equal Remuneration Convention(No. 100), and the Discrimination(Employment and Occupation) Convention(No. 111)

SK chemicals Supply Chain ESG Roadmap

	STEP 1. Establish policy	STEP 2. Diagnose and assess	STEP 3. Improvement and support	
2024	**Establish and disclose supply chain ESG policies** - Preemptive and periodic evaluation of business partners to verify the performance of ESG capabilities - Advance ESG evaluation indicators considering industrial characteristics - Establish an overseas supply chain evaluation plan	Diagnose and evaluate key management companies for the year(providing ESG guidelines, training, and diagnostic support)	**Diagnostic result-based improvement activities**	Support and monitor improvement implementation for primary key management suppliers
			Implement supply chain ESG activation plan	Expand the purchasing process to incorporate ESG - Verify effectiveness of improvement support programs for high-risk groups - Implement support programs for ESG-outstanding suppliers
2025	**Establish and disclose supply chain ESG policies** - Analyze road map performance and establish mid to long- term plans for the supply network management for 2022-2024(three years)		**Diagnostic result-based improvement activities**	Gather and share best practices
			Implement supply chain ESG activation plan	- Expand the implementation of improvement support programs - Extend support programs for ESG-outstanding suppliers
2026	**Establish and disclose supply chain ESG policies** - Review and improve ESG assessment, including increasing the weighting of assessments		**Diagnostic result-based improvement activities**	- Implement penalties for high-risk groups
			Implement supply chain ESG activation plan	- Review ESG support programs for all partners

Responsible Supply Chain Management

Supply Chain ESG Management Policy and System

Sustainable Purchasing Process

SK chemicals considers the ESG performance of suppliers during the procurement phase of raw materials and requires all suppliers to commit to a supplier code of conduct covering labor and human rights, environment, ethics, safety and health, and management systems. All suppliers must sign this code of conduct when entering into or renewing contracts. In 2024, all suppliers doing business with SK chemicals signed the code.
Through a screening process, the company selects key suppliers for focused ESG evaluation and conducts regular ESG assessments at the delivery stage to check for compliance. High-risk suppliers are required to take corrective actions while outstanding suppliers are rewarded. ESG evaluation results influence supplier selection and contracts for the following year. Suppliers that pose significant legal risks or fail to meet minimum ESG requirements may have transactions suspended or terminated. In 2024, 14 suppliers were either temporarily or permanently suspended. To internalize sustainable procurement practices, 86 percent of the purchasing staff completed relevant training.

Procurement Status and Analysis

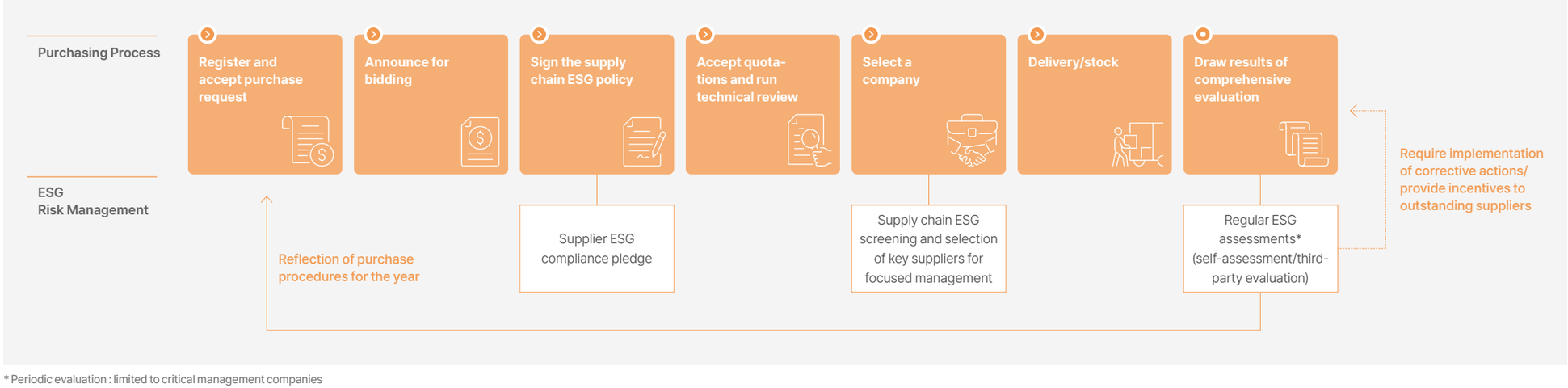
SK chemicals has a total of 956 suppliers in 2024, with a total procurement amount of KRW 761.3 billion.

Supplier status

Category	Unit	2022	2023	2024
Total number of partners	Numbers	1,297	990	956
Number of distributorships		313	258	285
Number of other companies		984	732	671
Amount of purchase[1]	KRW bil.	674	765	761
Amount of purchase from distributorships[1]		101	90	86
Amount of purchase from other companies[1]		572	675	675

1) Based on the amount purchased through the corporation and place of business located in Korea

Procurement contract process



* Periodic evaluation : limited to critical management companies

Responsible Supply Chain Management

Supply Chain ESG Risk Management Process

SK chemicals' supply chain ESG risk management process consists of four stages: screening, written self-assessment, third-party evaluation including on-site inspections, and implementation of improvement actions with support. The process incorporates the requirements of global ESG assessment agencies for supply chain due diligence to identify, prevent, and mitigate negative ESG risks that may arise across the value chain.

STEP 1. Risk Screening
Preliminary review of supply chain risk (based on screening elements)

STEP 2. Self-Assessment
Conduct supply chain ESG assessment (online-based self-assessment)

STEP 3. On-Site Evaluation
Verify self-assessment responses and check documentation(performed by a third-party organization)

STEP 4. Corrective Action and Implementation Support
Develop improvement plans and provide implementation support for high-risk groups (1:1 coaching)

Step 1. Risk Screening

SK chemicals conducts ESG risk screening to identify potential risks and operate evaluations efficiently. Suppliers with large transaction volumes, high importance, and elevated risks in ESG, country, raw materials, or products are selected as key suppliers. In 2024, 74 key suppliers were designated as priority suppliers based on a combination of two criteria: purchase amounts exceeding KRW 200 million for two consecutive years and ESG materiality.

Supply chain pre-screening elements

Category	Identification method
Business relevance	· Purchase amount, quality, technological purchasing dependency
ESG	· Compliance with legal sanctions regarding human rights and labor, environment, ethics, and governance
Country	· Presence in countries with human rights oppression, wars, or other conflicts
Raw materials	· Use of conflict minerals
Product	· Use of materials that impact the environment and human health

Significant suppliers

Category	Unit	2023	2024
Total number of significant suppliers	numbers	74	74
Number of tier 1 significant suppliers		74	74
Number of non-tier 1 significant suppliers		0	0
Purchase amount from tier 1 significant suppliers	KRW bil.	585	549
Purchase rate from tier 1 significant suppliers	%	76	72

Responsible Supply Chain Management

Step 2. Self-Assessment

Since 2021, SK chemicals has conducted supply chain ESG assessments by selecting suppliers with large transaction volumes and high ESG significance in order to establish a competitive supply chain. In 2024, 57 out of 74 key suppliers participated in the evaluation. ESG assessments were carried out either through responses via an online system or by utilizing results from KCGS and EcoVadis, in accordance with the supply chain management policy. The diagnostic questions were developed based on global supply chain assessment standards such as the RBA[1] and EcoVadis, along with domestic laws and guidelines. The evaluation framework consists of 22 intermediate categories and 66 detailed indicators identified as key areas for management, comprising 60 assessment indicators and 6 controversial indicators for identifying legal violations. To enhance accuracy, the assessment includes industry-specific indicators based on global industrial classifications, site-specific exception indicators, and customized indicators according to company.

Supply Chain ESG Assessment Implementation Status

Category Unit	Unit	2024	2024 Target
Number of companies that conducted self assessments	Number	57	58
Significant suppliers		57	58
Other		0	0
Proportion of suppliers participating in overall ESG assessment	%	53	70

1) RBA: Responsible Business Alliance

Detailed Inspection Results

Area	Detailed Area	Risk Level[2]	Major Issue
Environment	Environmental management	Moderate	Manage environmental policy, performance monitoring, certification, and history of violations of laws
	Eco-friendly products	Moderate	Develop/manage eco-friendly products and services
	Energy	Moderate	Measure energy use and level of renewable energy use
	Greenhouse gas	Moderate	Measure greenhouse gas emissions and reduction activities
	Waste	Moderate	Reduce waste and expand recycling
	Hazardous chemicals	Moderate	Manage and monitor safety and measure emission throughout the process
	Air pollutants	Low	Operate air pollution reduction facility and measure emission
	Natural capital	Moderate	Put in efforts to conserve biodiversity
	Raw and subsidiary materials	Moderate	Efficiency in using raw materials and measuring usage
	Water resources	Moderate	Reduce water usage, control water pollution and management facilities
Social	Privacy protection	Moderate	Establish information protection policies, monitoring, and regulatory violations
	Human rights	Low	Establish human rights policies and labor contracts and prohibit discrimination against women/people with disabilities, etc.
	Safety and health	Low	Establish policy, operate exclusive organization, education and training, accident prevention, accident rate, etc.
	Labor	Low	History of violation of the Labor Standards Act and the Labor Union Act, turnover rate, legal wage, etc.
	Working environment	Low	Complaint handling procedures, employee training, welfare, policy operation, etc.
	Fair trade	Moderate	Establish fair trade policy, violation of laws
	Social contribution	Moderate	Social contribution operation plan, operation of program
	Conflict minerals	Moderate	Violation of conflict minerals use
Governance	Disclosure	High	Disclose business activities and results and ESG management information
	Management system	High	Organization and reporting system dedicated to risk identification and ESG
	Audit	High	Independent audit organization/reporting system, internal audit
	Ethical management	High	Ethical management policies, reports on unethical activities, violations of laws, etc.

2) High: Requires focused improvement, Moderate: Needs improvement, Low: Maintain current status

Responsible Supply Chain Management

Step 3. On-Site Evaluation

SK chemicals identifies high-risk suppliers through a verification process conducted by independent third-party evaluation institutions in order to ensure the objectivity, reliability, and fairness of written assessments. If evaluation responses or supporting materials are deemed insufficient based on the verification results, on-site inspections are carried out as necessary. In 2024, on-site coaching was conducted for four suppliers among those participating in the ESG assessment. A total of 15 suppliers were found to fall into the high-risk category and were confirmed to require focused improvements in underperforming evaluation areas. A comprehensive analysis of the suppliers subject to ESG assessments revealed three cases of legal violations, including one related to environmental law, one under the jurisdiction of the Fair Trade Commission, and one involving a breach of personal data protection regulations. The governance areas of auditing, management systems, ethical management, and information disclosure were identified as the most urgent for improvement.
Furthermore, ESG assessment certificates and plaques based on the evaluation results are awarded to suppliers who undergo ESG evaluations. Reward schemes for suppliers with excellent ESG management have been considered, and SK chemicals plans to formalize preferential treatment incentives in the supplier selection process to encourage continuous capacity improvement.

Results of supply chain ESG risk assessment and of corrective actions

Category	Unit	2024
Number of suppliers participating in the overall ESG assessment	Numbers	57
Number of high-risk suppliers[1]	Numbers	15
Proportion of high-risk suppliers among all suppliers	%	1.6
Number of suppliers with corrective actions/improvement plans	Numbers	14
Proportion of suppliers with negative impacts were mitigated after corrective action	%	100

1) Suppliers identified as having actual or potential negative impacts

Step 4. Corrective Action and Implementation Support

SK chemicals provides ESG evaluation education and guidance on assessment indicators to all suppliers subject to third-party ESG assessments. This includes exemplary cases and answer guidelines to help improve suppliers' ESG management capabilities and enhance their ability to respond to third-party evaluations. After conducting third-party on-site inspections, the company also prepares diagnostic reports that include improvement roadmaps in order to manage the ESG performance of its supply chain. In particular, for high-risk suppliers, SK chemicals delivers evaluation reports that clearly identify the indicators requiring improvement and encourages suppliers to implement corrective actions in the identified weak areas. High-risk suppliers are asked to use the provided report to establish and submit improvement plans. During follow-up third-party verifications, the company checks whether the improvement plans have been implemented. In 2024, SK chemicals distributed evaluation reports outlining improvement indicators to high-risk and some medium-risk suppliers. Suppliers that fail to meet the minimum ESG standards within the agreed implementation period of their improvement plans will be subject to contract restrictions.
SK chemicals operates various improvement action programs to enhance the ESG performance of its supply chain. The company offers ESG educational seminars specifically for CEOs of supplier companies, covering topics such as the background and importance of ESG and developments in relevant regulations. In 2024, CEOs of three supplier companies completed this education program, thereby improving their understanding of ESG. Furthermore, the company provides one-on-one consulting(on-site coaching) to selected high-risk suppliers to assist in developing tailored improvement plans. In 2024, SK chemicals conducted on-site coaching for four high-risk suppliers, delivering basic ESG education and guidance on improvement directions. Based on this coaching, the ESG performance of all four suppliers is expected to improve and be downgraded to medium-risk or below, with the most significant improvements anticipated in the area of governance.

Status of Supply Chain Capability Enhancement Program

Supplier Category	Unit	2024	2024 Target
Number of business partners participating in the capacity building program	Number	38	39
Percentage of business partners participating in capacity building programs	%	100	100

Supplier ESG support program

Program	Content	Number of suppliers participating in 2024
Education on ESG assessment	• Provide guidance for responses by explaining the purpose of ESG assessment and presenting exemplary cases for each evaluation indicator	• 38
Seminars for CEO	• Background, importance, and legal development trends of ESG proliferation	• 3
1:1 On-site coaching	• Provide consulting for corrective actions implementation for high-risk suppliers - support environmental improvement consulting - assist with energy and greenhouse gas management strategies - support waste management implementation plans - check safety levels and provide safety equipment support - assist in the establishment of safety and health management regulations - support the revision and establishment of employment rules - advise on the establishment of raw materials-related processes - provide guidance on establishing codes of corporate ethics and policies	• 4

Responsible Supply Chain Management

Foundation for Shared Growth

Shared Growth Programs

SK chemicals pursues mutual growth with stakeholders and strives to build a fair and safe supply chain. To this end, the company has established an institutional foundation for improving ESG performance within the supply chain and operates various education and financial support programs.

SK Shared Growth Fund I Since 2013, SK chemicals has contributed to and operated the SK Shared Growth Fund to support the stable management of suppliers. Through this fund, SK-affiliated suppliers can obtain operating and equipment funds at interest rates up to 6 percent lower than market rates. In 2024, the company supported seven suppliers with approximately KRW 1.9 billion and continues to invest in shared growth with suppliers.

Operation of win-win cooperation fund

Category	Unit	2022	2023	2024
Total loan amount for partner companies	KRW bil.	1.6	2.2	1.9
Number of companies loaned	Numbers	6	8	7

Subcontract Payment I SK chemicals minimizes instability in supplier cash flow by implementing the fastest possible payment of subcontract payments. The company supports smooth business operations for suppliers by making cash-equivalent payments within 10 days after the issuance of tax invoices.

Advance and Interim Payments I To reduce suppliers' financial instability, SK chemicals operates a system of advance and interim payments. In particular, for equipment material and construction suppliers applying for these payments, the company provides cash-equivalent payments to support smooth delivery and construction. This system forms the foundation for mutual growth with suppliers and supports the maintenance of stable cooperative relationships. In 2024, to alleviate the financial burden on suppliers ahead of the Chuseok holiday, the company paid KRW 2.7 billion in advance payments to support supplier business stability.

Creating a Cooperative Business Environment I SK chemicals takes the lead in building cooperative relationships with small and medium-sized enterprises to enhance corporate competitiveness and support sustainable growth. Notably, the company supplies steam to small businesses located near the Ulsan plant at lower prices than their internal production costs. This support helps these companies reduce the burden of maintaining facilities and resources, address investment and fixed cost concerns, and allows SK chemicals to sell excess steam to the participating companies to pursue mutual benefits by reducing fixed costs.

Leadership Training Support for Suppliers I SK chemicals supports learning programs for CEOs, team leaders, and employees of suppliers to generate social value through shared and sustainable growth. Quarterly CEO seminars provide business insight on topics such as digital transformation, organizational management, and leadership. In 2024, leadership training was provided to team leaders of excellent suppliers through a total of five sessions conducted as group or one-on-one coaching formats.

Supplier Grievance Handling Channels

SK chemicals operates grievance handling channels on a regular and ad hoc basis to share concerns about ESG implementation and discuss shared growth strategies through continuous communication with suppliers.

Communication Hotline I In 2023, SK chemicals established a "communication hotline" to receive reports on human rights-related concerns from suppliers and other external stakeholders. All reports are handled through a transparent process, and the identity and content of the whistleblower are strictly protected

Hotline grievance handling process

Shared Growth Cooperation Meetings I SK chemicals holds monthly cooperation meetings to discuss matters necessary for maintaining sustainable relationships with suppliers. The meetings include sharing opinions on improving supply chain management systems and providing practical support measures to enhance the ESG management stability of suppliers. In 2024, the human rights impact assessment of suppliers identified three improvement items, including the provision of rest areas and expansion of grievance channel guidance, which have since been implemented.

Quarterly Supplier Representative Meetings I SK chemicals holds regular quarterly meetings with supplier representatives to conduct strategic discussions for building a sustainable supply chain. Through these meetings, the company shares long-term ESG management plans and communicates expectations for suppliers. Furthermore, difficulties in responding to ESG regulations are discussed, and practical cooperation measures are developed.

2024 grievance handling performance for partner companies

Communication Channel	Number of complaints received	Proportion of complaints handled
• Partner company win-win cooperation meeting(monthly) • Partner company representatives' meeting(quarterly) • Partner company human rights impact assessment	3	100%

Realization of Social Values

07.

REALIZATION OF SOCIAL VALUES

SK chemicals' social contribution activities are aligned with its corporate mission of protecting the global environment and promoting human health. These activities are carried out under four main categories: Green, Health, Hope, and Cooperation for Shared Growth. By continuously implementing key initiatives in each area, SK chemicals contributes to creating social value in local communities. The company will continue to fulfill its corporate social responsibilities through a variety of social contribution efforts.

Direction of Social Contribution and Community Participation

Community Participation and Development

SK chemicals conducts social contribution activities centered on the company's mission to promote human health and protect the planet's environment. This is executed through programs under the pillars of Green, Health, Hope, and Cooperation for Shared Growth. The company carries out projects aligned with the UN SDGs to contribute to global sustainable development goals. Since 2022, SK chemicals has set a goal of utilizing 3 percent of its estimated operating profit for social contribution activities. To achieve this, the company collaborates with community institutions to identify local needs and develops programs that support children and adolescents from low-income families in growing into healthy members of society. In the area of environmental education, the company jointly develops and implements effective education programs in cooperation with local education offices and social enterprises in education.

SK chemicals Volunteer Group

In 2004, SK chemicals formed the SK chemicals Volunteer Group, which has since actively participated in community service. In 2024, 633 participants took part in volunteering activities, contributing a total of 2,849 hours. The volunteer group operates at company sites in locations such as headquarters, Ulsan, and Cheongju, with the CEO serving as the head of the group. The Social Contribution Secretariat sets the direction for activities, develops company-wide programs, and manages collaborations with external institutions. In 2024, various volunteering initiatives were carried out including family volunteer activities for Disability Day, year-end events for local children and youth, and river water quality improvement activities. The company also established "Jigwan Seoga," a local humanities and cultural space that offers programs promoting psychological well-being and intellectual growth.

Mission of Social Contribution

Implementing sustainable society through Green, Health, Hope, and Cooperation for Shared Growth.

Policy	Key Businesses
Green Promoting healthy and safe lifestyles in the community through environmental management	· Establishing an eco-friendly circular economy for PET · Happy Green School
Health Establishing community safety networks and disease prevention through social contribution activities	· Cognitive improvement program for dementia patients · Support for rare and intractable diseases · Jigwanseoga
Hope Supporting vulnerable groups in the community to grow into healthy members of society	· Hope Maker · ESG Integration(member volunteer activities) · Community support(scholarship foundations, support for welfare organizations)
Cooperation for Shared Growth Leading win-win cooperation by establishing partnerships between large and small businesses	· Support for welfare of partner company members

Realization of Social Values

Key Social Contribution Programs

Green Program

Happy Green School | Since 2012, SK chemicals has expanded awareness of environmental protection through environmental education initiatives. The "Happy Green School" program, a key part of its social contributions, offers environmental education to elementary school students near its business sites. Company employees and external experts act as instructors, teaching as one-day teachers. To date, 208 employees have completed internal training to become eco-friendly teachers, and more than 25,178 students from Seongnam, Ulsan, Cheongju, and Andong have participated, receiving high satisfaction ratings.
SK chemicals has developed teaching materials tailored to children's perspectives, making environmental education simple and accessible. In response to the demand for online education during COVID-19, the company developed textbooks and a game app usable both online and offline to allow children to learn about the environment at any time. In addition, the program creates jobs by training career-interrupted women to become professional instructors. In 2024, the program was implemented across 185 classes in three regions.

Upcycling for Resource Circularity | Together with affiliates such as SK plasma and SK bioscience, SK chemicals created and donated eco-friendly upcycled products. In partnership with four social enterprises and social ventures, the company produced kits such as pot holders and bath mats made from discarded glass and sock threads, baskets made of recycled paper, neck cushions using recycled PET fiber, and lamp stands made from discarded hanbok fabrics. These were donated to welfare facilities and children's centers. In 2024, four volunteer sessions were held with participation from 539 employees and their families, who contributed to both environmental protection and support for underserved groups. SK chemicals provides reward points to participating employees, which can be donated or exchanged for gift cards. Now in its fifth year, the company plans to continue these activities in cooperation with other SK group affiliates.

Health Program

Opening of Jigwanseoga Human Happiness Center | To support mental well-being and a fulfilling life for residents of Suwon, SK chemicals partnered with local governments to transform an unused space into the "Jigwan Seoga" human happiness center. This is a place to pause from daily life, reflect inwardly, and gain wisdom through literature and introspection. With happiness as its core theme, the center hosts diverse humanities programs in collaboration with the Jigwan Foundation to promote mental health and quality of life. The center also collaborates with local social enterprises and bookstores to foster job creation and generate social value.

Mission	Community Engagement Program	Target Group	2024(Performance)	2025(Goal)	2026(Goal)	2027(Goal)
Green	Production of upcycling products for circular economy	Social welfare and child care centers near worksites	478 persons	550 persons	550 persons	550 persons
Health	Digital dementia cognitive improvement program	Worksites and key metropolitan day and night care centers	24,391h	26,860h	29,008h	30,458h
Hope	Hope Maker	Low-Income children and youth in worksite-centered communities (Seongnam, Ulsan, Cheongju, Andong)	Employee Participation Rate 54%	Employee Participation Rate 60%	Employee Participation Rate 65%	Employee Participation Rate 70%
	Happiness Alliance	Children at risk of food insecurity near worksites	140 persons	140 persons	140 persons	140 persons

Realization of Social Values

Key Social Contribution Programs

Hope Program

Hope Maker | Since 2012, SK chemicals has operated the "Hope Maker" program to support local communities. In collaboration with eight local welfare centers nationwide, the program provides financial and emotional assistance to 121 children and adolescents from low-income families. Beneficiaries receive monthly sponsorship, holiday gifts, support for graduates, and invitations to year-end events, helping them grow into responsible members of society. In 2018, SK chemicals introduced the "Hope Maker School" mentoring program, pairing students with college mentors to support academic growth and career development. In partnership with welfare centers, the program tailors its offerings to student needs. As a result, participants' understanding of career paths improved by 38.6 percent and academic diagnostic scores improved by 38 percent. SK chemicals remains committed to supporting local communities through this initiative. In addition, in collaboration with SK Discovery affiliates, the company held the cultural year-end event "Warmth GO! Hopeful GO!" for youth. In 2024, approximately 130 individuals participated. Since 2023, the event has shifted from performance- and evaluation-focused formats to programs reflecting the interests and feedback of supported youth.

Happiness Alliance School | In 2024, SK chemicals participated in the "Happiness Alliance School," a child education program run by the social contribution network Happiness Alliance. Started in 2022, the program aims to bridge educational gaps for children in welfare blind spots. The initiative involves selecting beneficiaries through local governments and the Happiness School Foundation managing the curriculum. Participating member companies offer educational and emotional support using their expertise. Among 17 participating companies, SK chemicals provided environmental theory education and a game-based app, offering children a rich learning experience. The company plans to continue offering educational programs to ensure that all children have equal access to learning opportunities.

Volunteering for Disability Awareness

Since 2019, SK chemicals has conducted volunteer activities involving both employees and their families to address social issues such as environmental protection and disability awareness.

Giving the Gift of Ordinary Life, Camping Salon | At a glamping site in Yongin, Gyeonggi Province, SK chemicals hosted the "Camping Salon" to raise awareness of disabilities. Around 60 participants including employees from SK chemicals, SK plasma, SK bioscience, and users from the Yongin Suji Welfare Center for the Disabled participated in activities such as woodworking, photo contests, art exhibitions, and book donations, which fostered understanding of disabilities through shared experiences.

Together Present, Together Connect | To commemorate Disability Day, SK chemicals collaborated with the social enterprise Spring Shine to host the event "Together Present, Together Connect." Spring Shine supports the artistic and creative activities of individuals with developmental disabilities and produces design goods based on their work. About 40 employees and their families from SK chemicals and SK bioscience participated in various disability awareness programs. Children of employees received customized disability awareness education prepared by professionals, and all participants created memory kits based on artwork by people with disabilities. The finished kits were donated to child welfare facilities. SK chemicals will continue to engage in activities that address social issues and promote happiness. The company will seek more opportunities for its employees and their families to generate social value and spread happiness throughout the community.

Hope Maker Year-End Gathering

Giving the Gift of Ordinary Life, Camping Salon

Together and Connected

Context

A sound and transparent governance structure affects not only a company's financial performance but also its non-financial outcomes. Companies must therefore reinforce the responsibilities and roles of the ESG Committee and establish an integrated enterprise-wide risk management system to advance sustainable management. At the same time, in order to fulfill their corporate social responsibilities and gain the trust of various stakeholders, companies must enhance the level of ethical management and awareness among employees, with the Board of Directors overseeing this systematically. SK chemicals is committed to establishing a healthy and transparent governance structure and has included related efforts in this report.

Approach

SK chemicals has strengthened the role of the ESG Committee and linked ESG performance to KPIs to emphasize employee responsibilities. In order to raise the level of ethical management across the organization, the company conducts training on ethics, compliance, and fair trade, operates a fair trade compliance program, and reports compliance inspection results to the Board. Furthermore, to enhance risk management capabilities, the company has built an integrated enterprise risk management framework and established annual risk management plans for each division, reporting progress and responses to the Board.

Ethical Management

Responsible Governance

Risk Management

Information Protection

Research and Development

2024 ACHIEVEMENT & PROGRESS

Core Area	Key Agenda	2024 Goals	2024 Key Achievements	2025 Goals	Mid- to long-term Plan	Page
Ethical Management	Establishment of ethical management system	• Achieve 74% of the leader level criteria in SK group's ethical management assessment framework	• Developed a plan to improve ethical management practices and achieved 78% of the target level under the SK Group ethical management assessment system	• Achieve 85% of the leader level criteria in SK Group's ethical management assessment framework	• Achievement of leader level in group ethical management level measurement system	125
	Strengthening internal audit activities	• Systematic audit execution aligned with mid-term audit plan	• Updating mid-term audit plan • Conducting regular audits(Comprehensive procurement assessment, SK chemicals Daejung)	• Strengthening audits of subsidiaries(including overseas subsidiaries) - Conducting regular audits for 2 companies	• Expansion of regular audits - Review of outsourced audits	128
Responsible Governance	Board-Centered Management	• Securing expertise and diversity in the board of directors	• Strengthening board education • Appointment of female outside director on the board	• Enhancing boards management oversight - Establishing preemptive direction for management strategy and strengthening post-supervisory functions	• Expanding expertise and diversity of the board of directors	130
	Linking ESG performance to compensation and CEO performance rewards	• Linking ESG performance to CEO and executive evaluation and compensation	• Establishing CEO and executive KPI ESG tasks and linking them to compensation evaluation	• Interim dividendestablishing CEO and executive KPI ESG tasks and linking them to compensation evaluation paymentgranting stock options to CEO	• Strengthening ESG performance-linked compensation system • Detailed disclosure of CEO compensation calculation criteria	131
	Shareholder-friendly management	• Implementation of shareholder return policy	• Interim dividend implementation(July 2024)	• Interim dividend payment • Granting stock options to CEO(March 2025)	• Expansion and specification of shareholder return policy	133
Risk Management	Strengthening risk governance	• Integrated enterprise risk management through operation of risk management secretariat	• Annual reporting and target setting for enterprise risk management to the board of directors	• Stable operation of company-wide risk management	• Board-level company-wide risk management and internalization	134
	Establishment of risk management strategy		• Annual risk management task setting by organization and status monitoring			135
Information Protection	Establishment of information security system	• Acquisition and renewal of information security management system(ISO 27001) certification	• Acquisition of information security management system (ISO 27001) certification	• Renewal of information security management system(ISO 27001) certification	• Strengthening control over internal information leakage and security for overseas operations	138

Ethical Management

01.

ETHICAL MANAGEMENT

Ethical management is essential for enhancing corporate credibility, fulfilling social responsibilities, and achieving sustainable growth. In a global business environment where ethical accountability is increasingly important, transparent and responsible management is required. SK chemicals strengthens its ethical management system based on SKMS and the Code of Ethics. The company provides practical ethical guidelines organization-wide to prevent corruption and conflicts of interest and has obtained ISO 37001 Anti-Bribery Management System certification to build a global-level ethical management system.

Principles and System of Ethical Management

Ethical Management Principles

SK chemicals is committed to practicing company-wide ethics and compliance management to become a trusted company among stakeholders. Based on the SK Group's management philosophy(SKMS), its Code of Ethics, and Practical Guidelines for the Code of Ethics, the company has established systems and culture for ethical management. The company's goal is to create value for stakeholders, play a central role in societal and economic development, and ultimately contribute to human happiness. To enhance employees' ethical awareness and assist in sound decision-making, the company provides ethical standards and value judgment criteria through the Practical Guidelines for the Code of Ethics. The guidelines include major principles such as compliance with anti-corruption laws like anti-bribery regulations, and the prohibition of conflicts of interest.

Code of Ethics

Code of Ethics Implementation Guidelines

Principles of Ethical Management

	Code of Ethics	Code of Ethics Implementation Guidelines
Purpose of Establishment	Defines employees' responsibilities toward stakeholders	Provides standards for ethical decision-making and behavior
Main Contents	• Securing customer trust and mutual growth • Contributing to value creation for istakeholders • Creating value for shareholders • Joint development with suppliers and fair competition • Contribution to economic development and social contribution • Anti-corruption and prevention of conflicts of interest • Enhancement of human health and environmental protection	• Attitude of employees • Attitude toward customers • Responsibility toward employees • Responsibility toward shareholders • Relationship with business partners • Role toward society • Compliance with laws and regulations • Application of code of ethics and implementation guidelines

Ethical Management System

SK chemicals has established a governance-centered ethics and compliance management system and operates dedicated departments tailored to the Green Chemicals and Pharma businesses. The CEO leads company-wide ethical culture creation and implementation and gives final approval to policies such as the Code of Ethics and its practical guidelines. The Board annually approves ethical management plans and receives updates on implementation progress. The Compliance department oversees ethics initiatives in the Green Chemicals and Pharma businesses, monitors their implementation, and reports regularly to the CEO. The company appoints compliance officers in each business division to disseminate relevant laws and regulations, enhancing employees' compliance awareness and carrying out Prevent, Detect, and Respond activities to mitigate ethical risks.

Ethical Management Promotion Organization

Board of Directors

CEO

Legal Department

Compliance Team 1 | Compliance Team 2

Anti-Corruption Roadmap

Goal **Establishment and operation of ethical management/internal audit infrastructure at the level of a global leading enterprise**

2025~2026	**Expansion of Audit Scope** - Expansion of overseas subsidiary audits(twice annually) and strengthening of internal controls - Execution of subsidiaries compliance audits
2027	**Expansion of regular audits** - Increase regular audits to three or more annually

Ethical Management

Obtained ISO 37001 certification

In the first half of 2023, SK chemicals obtained ISO 37001 certification, further strengthening its ethical management system and establishing a global-level anti-corruption culture. This milestone clearly demonstrates the company's commitment to ethical practices, enhances corporate credibility, and provides a strong foundation for international trust.

The company has also established Anti-Bribery Management System regulations aligned with ISO 37001 requirements, clarifying the responsibilities and authorities of relevant departments. These regulations outline operational standards for preventing corruption and bribery, including procedures for offering or receiving gifts, entertainment, and donations in accordance with company rules and applicable laws. SK chemicals will continue to improve its ethical management system in line with international standards and undergo regular external audits to validate the system's effectiveness. In 2024, the company successfully met all standards in a third-party certification audit and received an evaluation of "certification maintained appropriately."

ISO 37001

Certificate No : RA80144

Certificate of Registration

ANTI-BRIBERY MANAGEMENT SYSTEM

This is to certify that
the anti-bribery management system of

SK Chemicals Co.,Ltd

at
Head Office: #310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea
Ulsan Plant: #718, Cheoryong-ro, Nam-gu, Ulsan, Korea

Has been found to conform to the Anti-bribery Management System Standards:

KS A ISO 37001:2016 / ISO 37001:2016

This Certificate is valid for the following product or service ranges:

Green Chemicals Business
(Development and Production of Copolyester Resins, Engineering Plastics, Adhesives and Coatings)

Issue Date : Jun. 20. 2023

Certification Date : Jun. 20. 2023 Valid Date : Jun. 19. 2026

Authorized By

Korea Management Registrar
Jeong, CW Jae High-Tech City #776 Gyeongju-ro
Yeongdeungpo-gu, Seoul, 07299, Korea
T: 82-2-6300-9001 / F: 82-2-6300-9006

- KMR is accredited by the KAR (No. KAR AC 053)
- Initial certification date: Jun. 20. 2023

Ethical Management Activities

Activities to Disseminate an Ethical Culture

To spread a culture of ethics and compliance, SK chemicals makes multifaceted efforts. Each year, the company conducts a company-wide ethics practice survey to assess the current state of ethical management and identify vulnerable areas. The survey results are reported to management and relevant committees. To raise the level of ethics practice among employees, the company provides annual ethics training and organizes ethics practice workshops led by executives. In 2024, each program was conducted once. The CEO sends a letter affirming commitment to ethical management to all employees, and all employees are asked to sign the ethics practice pledge. The pledge is available in Korean and Chinese and is extended to subsidiaries as part of the company's policy to promote ethical management programs.

To promote a culture of ethics among business partners, SK chemicals sends a letter explaining its ethical management policy and collects Business Partner Ethics Practice Pledges annually. The company also implements ESG training programs, including ethics content, to strengthen the capabilities of major suppliers.

Ethical Management Process

STEP 1

Prevent

Provision of policies and guidelines, employee education, monitoring regulatory trends, etc.

STEP 2

Detect

Inspection, reporting, investigation, issue response, etc.

STEP 3

Respond

Result analysis and evaluation, establishment of recurrence prevention measures, disciplinary actions against violating employees, etc.

Ethical Management

Ethics and Compliance Training

SK chemicals conducts ethics training annually to instill a commitment to ethical practices and enhance implementation levels. The training includes online courses for all employees, including part-time and contract workers, and in-depth discussion-based workshops led by executives. In 2024, both the ethics training and workshop were held once. The online course covered case studies on monetary loans, negligence, false reporting, compliance, asset protection, corporate card use, and reporting procedures. The ethics workshop, led by executives, focused on ethics and anti-corruption, and included discussions on topics such as the credibility of reporting channels, transparency and fairness in investigations and disciplinary action. As a self-diagnosed issue, misuse of corporate cards for personal purposes was selected for discussion, resulting in two topics being discussed per organization. Participation across all teams in the workshop reached 100 percent. In the Pharma business, three additional training sessions were conducted in 2024, including face-to-face sessions to promote understanding of public interest reporting procedures, new employee training, and training for marketing product managers.

Operation of Reporting System

SK chemicals operates multiple reporting channels to strengthen ethical and compliant practices. Reports can be submitted through the SK Ethics Management Integrated System(website), email, phone, or mail, and are received by the Compliance Team 1. Depending on the matter, investigations are conducted by Compliance Team 1 for Green Chemicals, Compliance Team 2 for Pharma, and the People Partner Team for HR issues. Since 2023, a third-party operated "communication hotline" has also been in place to receive a wide range of concerns. Serious issues such as workplace harassment, personal gain, repeated bullying, violations of fair-trade laws, false reporting, information leakage, and retaliation against whistleblowers are subject to severe disciplinary action, including suspension or termination. Online reports are handled according to established procedures, with appropriate responses provided to whistleblowers. Report outcomes are regularly reported to management and the Audit Committee under the Board.

Scope of Reports and Whistleblower Protection

All stakeholders, including suppliers, customers, and third parties, can report concerns related to labor and human rights, the environment, anti-corruption, information security, and sustainable supply chains, either anonymously or with their real name. Whistleblowers can track the status and results of their reports via the online reporting system. All report contents are kept strictly confidential, and the identity of the whistleblower is protected to prevent retaliation, discrimination, identity exposure, or other disadvantages. If a whistleblower suffers adverse treatment, they may request corrective or protective action from the Ethics Management department. Any employee who retaliates against a whistleblower will be subject to severe disciplinary action, including suspension or dismissal, under a zero-tolerance policy.

2024 Ethical/Compliance Training Status

Training Name	Contents	Target	Number of Sessions	Number of Participants
Online ethics training	Ethical management	All members	Once	1,501 persons
New employee training	Ethical management	New employees	Once	8 persons
Public Interest reporting procedure training	Configuration and usage instructions of the reporting system, whistleblower protection procedures	All members of Pharma business	Once	640 persons

Report Subjects and Scope

Fraud and abuse targeting partners(BP)	Bribery, acceptance of entertainment/hospitality, private demands, equity investments, unfair instructions, verbal abuse/assault, etc.
Conflicts of Interest in Duties	Side jobs, excessive personal errands, loans among members, insider trading investments, transactions with related parties, etc.
Damage to social value	Non-compliance with environmental, safety, health, quality regulations; disregard for socially vulnerable groups; leakage of customer information; providing false information to customers, etc.
Lack of respect among members	Verbal abuse, assault, sexual harassment, ostracism, exclusion from work, ordering personal errands, etc.
Inappropriate work handling	False reporting, unfair business practices, improper use of costs/assets, information leakage, etc.

Ethical Management

Ethical Management Activities

Ethical Risk Audits and Assessments

SK chemicals conducts internal audits, including regular audits, implementation audits, self-monitoring systems, and investigations of reported concerns, led by dedicated teams such as the Compliance Team 1 to raise the level of ethical management. Every year, the company classifies risks by organization and function and carries out regular audits and implementation checks. In areas where major risks are likely to occur, it has established a self-monitoring system for ongoing oversight. Reports received at any time are investigated within a designated timeframe, and the anonymity of whistleblowers is strictly protected. The process of receiving, investigating, and addressing reports is conducted transparently and fairly, thereby strengthening employee trust in internal audits.

Internal Audit Operation Status[1)]

Guide | Report | SK Ethical Management

Online Report | Report | SK Ethical Management

Regular Audit	Implementation Audit	Self-checking System	Whistleblowing Investigation
Regular risk checks by organization and function(Twice a year)	Audit improvement recommendation implementation check(Twice a year)	Self-inspection according to company-wide risk area inspection guidelines(Annual)	Investigation of reports requiring investigation among received reports

1) Internal audits are conducted for all business sites.

Whistleblowing Procedure

Step 1. Report Receipt	Step 2. Report Classification	Step 3. Investigation Initiation	Step 4. Result Reporting	Step 5. Follow-up Actions
website/phone-call/e-mail/ Mail/Interview	Determination of investigation subject based on position of subject and materiality of issue	Participation of relevant departments if necessary	Review of investigation results, reporting/approval of action opinions, supplementary investigation if insufficient	Feedback on results (upon request), Disciplinary request if grounds for discipline arise

Ethical Risk Management System Inspection and Improvement

SK chemicals conducts internal compliance system reviews to promptly respond to changes in relevant laws, regulations, and social expectations both internally and externally. In accordance with internal audit guidelines, the company reviews six key areas: cost management, procurement & business partners, HR, sales & receivables, investment, and specific risk management. As a result of the 2024 compliance system review, a total of four improvement issues were identified — two in Green Chemicals and two in Pharma — and actions were recommended accordingly.

Identification of Ethical Risks and Implementation of Remedial Measures

SK chemicals conducts investigations into reports received on an ongoing basis, in addition to regular audits and follow-up audits as part of its internal audit processes. The company carefully investigates and determines whether violations have occurred and ensures transparent and fair handling in accordance with established procedures. Internal audits, including those of domestic and international subsidiaries, are conducted every three years in accordance with a mid-term audit plan. The scope of these audits is determined based on a risk pool that identifies risk factors across the entire organization.

All audit plans and results are reported to the Audit Committee. In 2024, two regular audits were conducted, and as a result, improvement recommendations were identified. The relevant departments implemented the recommended improvements and followed up with corrective actions. During 2024, a total of 17 reports were received through the reporting channels, and seven of those, determined to require detailed investigation, were classified as management-related reports and were investigated. Among them, one report concerning a violation of the dual employment regulation was confirmed and resulted in internal disciplinary action.

Violation Details	Number of Violations Reported in FY2024
Corruption or bribery	0
Discrimination or harassment	0
Customer privacy data	0
Conflicts of interest	1
Money laundering or insider trading	0

Ethical Management

Fair Trade

Fair Trade Compliance Program

Since 2006, SK chemicals has operated a Fair Trade Compliance Program(CP) to ensure adherence to fair competition principles and relevant antitrust regulations in all business activities. Under the overall oversight of the Fair Trade Compliance Officer, each business unit conducts continuous self-assessments using checklists. For matters with a high likelihood of legal risk, internal experts are consulted in advance, allowing for preventive review and effective operation of internal audit systems.

Recognizing the high standards of fairness and ethics required in the pharmaceutical industry, which is directly linked to public health and subject to industry-specific regulations and restrictions, SK chemicals established a dedicated Pharma Compliance Unit in 2016. This team has been managing a customized fair trade compliance framework tailored to the unique characteristics of the pharmaceutical sector. From 2025, this unit will be integrated under the Legal Office led by the Corporate Compliance Officer, enhancing review efficiency and compliance-driven decision-making.

The dedicated Pharma Compliance Unit has enacted internal Fair Trade Compliance Guidelines that reflect current industry conditions. In 2024, supplementary practical guidelines were introduced, incorporating detailed case studies to further strengthen adherence to fair trade practices. Furthermore, to uphold ethical business conduct and fair trading across the value chain, SK chemicals has implemented a compliance evaluation framework for its third-party wholesale trading partners. These criteria are applied to all new partnerships and contract renewals, helping ensure robust ethical and regulatory standards across the extended supply network.

Establishment of a Fair Trade Culture

SK chemicals is committed to fostering a fair trade culture across the organization. To this end, the company has published and distributed the Fair Trade Compliance Handbook, which encompasses not only the Fair Trade Act and relevant domestic regulations but also international anti-corruption laws such as the U.S. Foreign Corrupt Practices Act(FCPA) and the U.K. Bribery Act. In addition, the company has established the Fair Trade Compliance Code and Guidelines for the Pharma business, setting forth the legal and ethical standards to be observed by all personnel involved in pharmaceutical marketing. These guidelines are regularly disseminated and integrated into training programs. Each year, SK chemicals conducts fair trade law and chemical substance regulation training for all employees to encourage voluntary compliance and enhance understanding of legal updates. In addition to company-wide ethics and fair trade training, the company provides specialized training for sales personnel in the Pharma Marketing Division and pharmaceutical product managers. These role-specific sessions are designed to ensure compliance with the Pharmaceutical Affairs Act, the Fair Competition Code, and other applicable regulations. Through this targeted training, marketing personnel are clearly informed of the statutory requirements they must adhere to in their professional duties, thereby minimizing the risk of regulatory violations in the field.

To reinforce commitment to compliance, the CEO of SK chemicals issues an annual Fair Trade Compliance Statement on behalf of the company. To prevent potential violations in transactions with internal and external stakeholders, the company conducts biannual fair competition compliance training. In 2024, this included training for new employees and specialized sessions for product managers. Additionally, the company has institutionalized a compliance protocol under which the dedicated compliance team conducts mandatory pre- and post-reviews of approximately 45,000 Sales Force Effectiveness(SFE) marketing activities annually. This mechanism helps prevent potential violations and supports the continued cultivation of a robust fair trade culture within the organization.

Status of Fair Trade Training Conducted in 2024

Training Name	Contents	Target	Frequency	Number of Participants
Online ethics training	Business ethics and fair trade compliance	All employees	Once	1,501 persons
Pharma marketing headquarters regular training[1]	Fair trade and related trends in the pharmaceutical industry	All Employees of Pharma business marketing	Twice	333 persons
New/experienced employee training	Pharmaceutical industry marketing laws and regulations	New and experienced employees of Pharma business unit	Once	22 persons
Training for marketing planning team[1]	Guidance on advancing fair trade work processes	Pharmaceutical product managers	Once	39 persons
Transfer pricing	Considerations for transfer pricing and customs valuation related to raw material imports from affiliates	Related departments such as Business, Legal, Accounting, Purchasing Teams	Once	40 persons
ESG and greenwashing	Key issues related to eco-friendly labeling and advertising	Related departments such as Business, Legal, Public Relations, ESG Teams	Once	100 persons

1) Job-Specialized Fair Trade Training

Responsible Governance

02.

RESPONSIBLE GOVERNANCE

Establishing a healthy and responsible governance structure is a core foundation of ESG management and influences both financial and non-financial performance. SK chemicals is building and enhancing its governance framework to fulfill its corporate social responsibilities and earn the trust of various stakeholders, alongside generating business profits. To ensure independence, expertise, and diversity within the Board of Directors, the company has developed voluntary guidelines that inform the Board's composition. Through responsible and sound governance, SK chemicals seeks to enhance the value of shareholders and other stakeholders by managing financial and non-financial risks under a Board-centric system.

Board Composition and Expertise

Board Composition

The Board of Directors at SK chemicals actively incorporates the opinions of shareholders and stakeholders into management decisions and deliberates on major matters spanning social, environmental, and economic areas. As of March 2025, the Board consists of two internal directors, four outside directors, and one non-executive director. To enhance the Board's checks and balances over the executive team, the roles of Board Chair and CEO are separated, and more than half of the Board members are outside directors. Directors are restricted by law to no more than one concurrent position and are prohibited from employment at companies with conflicts of interest. Decisions on the reappointment of directors are made at the end of each term based on evaluations of their performance.

Board Expertise

SK chemicals prioritizes experience and expertise when nominating candidates for directorship. The company discloses the qualifications, selection rationale, and independence of director candidates. Outside directors are industry and economic experts who contribute opinions based on their respective specializations, supporting rational decision-making. To enhance expertise, the company has established four committees under the Board: the Audit Committee, the Outside Director Candidate Recommendation Committee, the ESG Committee, and the Personnel Committee.

Board Composition and Expertise (As of March 2025)

Position	Name	Gender	Expertise	Major Career and appointment background	Board Committees
Inside directors	**Kim Cheol** (CEO)	Male	Industry, management	Joined SK Corporation; served as Head of Oil Development Division at SK Innovation and Head of Resin Business Unit at SK chemicals; currently CEO of SK chemicals. His extensive experience and capabilities gained through significant roles in business growth at each company are expected to greatly aid the execution of new business initiatives at SK chemicals.	-
	Ahn Jae-hyun (CEO)	Male	Industry, management	Former CEO of SK Discovery and SK D&D; led SK Gas's Management Support Division and chaired the New Growth Energy Committee; served as CEO of SK Ecoplant; led various investments and M&A activities; successfully transformed SK Ecoplant's business structure toward eco-friendly and new energy sectors. Based on this experience, he is expected to contribute to building a recycling- and bio-centered portfolio and accelerating ESG management at SK chemicals.	ESG Committee
Outside directors	**Moon Sung-hwan** (Board Chair)	Male	Industry, management	An expert in corporate management with over 10 years as CEO of chemical companies Samyang Corporation[1] and Huvis[2], possessing deep knowledge and rich experience in the chemical industry.	Audit Committee Personnel Committee(Chair)
	Cho Hong-hee	Male	Finance, accounting	A tax expert with over 30 years of experience in tax administration including the National Tax Service; has also served as an independent director and audit committee member at listed companies for many years.	Audit Committee(Chair) Outside Director Nominating Committee Personnel Committee
	Kim Sunmee Choi	Female	ESG	Professor of Business Administration at Yonsei University, possessing rich insight and experience through various domestic and international activities, expected to contribute to enhancing Board diversity and securing transparency and independence of the Audit Committee.	Outside Director Nominating Committee(Chair) Audit Committee ESG Committee
	Park Tae-jin	Male	Global/ Capital markets	Former Korea President and Asia-Pacific Vice Chairman of JP Morgan, possessing over 20 years of experience in investment banking with extensive knowledge and practical expertise as a financial professional.	Audit Committee Outside Director Nominating Committee ESG Committee(Chair)
Non-Executive directors	**Son Hyun-ho**	Male	Finance/Business Development and strategy	A finance and strategic planning expert with extensive practical experience, having served as Chief Financial Officer at SK Corporation and led the SUPEX Council's Strategy Supporting Team.	Personnel Committee

1) Samyang Corporation: Established in 1924, engaged in chemical and food businesses; major chemical products include engineering plastics, ion exchange resins, touch panel materials, and polymers.
2) Huvis: A polyester fiber manufacturer producing raw materials for industrial materials, bottles, and films.

Responsible Governance

Board Independence

Amendment of the Governance Charter

In 2022, SK chemicals revised its Governance Charter, originally established in 2021. The revision incorporated the Korea Institute of Corporate Governance and Sustainability's updated best practice guidelines, published in August 2021, and reflected changes in the SKMS philosophy. The key revisions included clarification of the Board's roles and responsibilities, addition of committee roles within the Board, inclusion of director appointment content in the general meeting of shareholders, enhanced stakeholder communication, pursuit of employee happiness, Board-centered management, and establishment of transparent governance.

Strengthening Independence and Diversity

Amid increasing expectations from institutional investors and rating agencies such as DJSI and the National Pension Service for Board independence and diversity, SK chemicals has established voluntary guidelines to ensure these principles. The guideline for outside director independence outlines legal and enhanced recommendations, while the Board diversity guideline includes general diversity and professional standards. These guidelines are published on the company website for stakeholder access. When selecting directors, the company evaluates candidates' backgrounds and expertise to support balanced decision-making and effective supervision and ensures they do not fall under disqualification grounds under the Commercial Act.

In 2024, SK chemicals appointed a female director to further strengthen Board diversity and expertise. The company recognizes that Board independence and diversity are crucial for sustainable growth and innovation and will continue to appoint directors with diverse backgrounds and expertise to align with global standards.

Status of Meeting Board Independence Requirements

Board Independence Requirements	Moon Sung-hwan	Kim Sunmee Choi	Cho Hong-hee	Park Tae-jin
Outside directors must not have been employed by the company as CEO or other executives within the past five years.	●	●	●	●
Outside directors and their families must not have received any payments exceeding $60,000 in any form from the company, its parent company, or subsidiaries within the past three years.	●	●	●	●
Outside directors and their families must not have served as executives of the company, its parent company, or subsidiaries within the past three years.	●	●	●	●
Outside directors must not be advisors or consultants to the company or senior management, nor have any affiliate relationships with the company.	●	●	●	●
Outside directors must not have affiliate relationships with major customers or suppliers of the company.	●	●	●	●
Outside directors must not engage in personal transactions or service contracts with the company or its senior management.	●	●	●	●
Outside directors must not have transactional or affiliate relationships with non-profit organizations(NGOs) that receive significant donations from the company.	●	●	●	●
Outside directors must not have worked as partners or employees of the company's audit firm within the past three years.	●	●	●	●
Outside directors must meet other independence requirements set by the Board and must not have conflicts of interest with the company.	●	●	●	●

Performance Evaluation and Compensation

Evaluation and Compensation of the Board

The compensation of directors, including the CEO, is executed with shareholder approval within the total compensation limit. Internal directors are compensated based on the value of their responsibilities, while outside directors are paid equally under a separate procedure. Performance-based compensation is determined by combining quantitative indicators such as revenue, operating profit, and pre-tax income, with qualitative indicators such as leadership, expertise, and contributions to the company. In 2024, the approved total compensation for directors was KRW 5 billion, and KRW 2.635 billion was paid to the seven registered directors, averaging KRW 376 million per person. When the compensation of an individual director or auditor exceeds KRW 500 million, the company discloses the amount in the semiannual and annual reports as required by law.

Board of Directors(Including CEO) Performance Evaluation Indicators

Category	Performance Indicators
Financial performance	Performance sales, operating profit, pre-tax profit, net profit, etc.
Non-financial performance	Performance achievement of strategic goals (ESG Performance, etc.), leadership, etc.

2024 Director Compensation(Including CEO) Payment Status

Category	Number of People	Total Payment(KRW million)	Average Compensation per Person(KRW million)
Registered directors[1]	3	2,180	727
Outside directors[2]	-	-	-
Audit committee members	4	455	114

1) Excluding outside directors and audit committee members 2) Excluding audit committee members

2024 CEO-to-Employee Compensation Ratio

Category		Amount(KRW million)	Multiples(Times)
CEO compensation[1]		1,090	-
Employee compensation	Average	85	12.8
	Median	81	13.5

1) CEO compensation is calculated as the average of President Kim Cheol and President Ahn Jae-hyun's compensation

Responsible Governance

Efficient Board Operations

Board Operation

In 2024, SK chemicals convened a total of 14 regular board meetings. Each agenda item was reviewed and resolved in consideration of global market conditions. The Board of Directors makes decisions on matters stipulated by laws or the articles of incorporation, matters delegated by the general meeting of shareholders, and key matters concerning the company's basic management policies and execution of duties. The average attendance rate at board meetings was 100 percent.

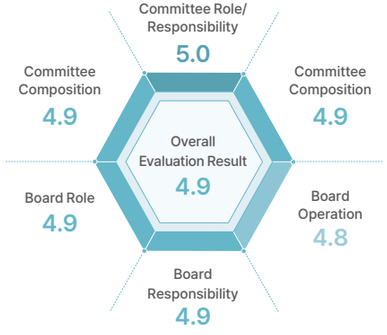
Committees within the Board

To enhance the efficiency and expertise of its board operations, SK chemicals has established four committees under the board: the Audit Committee, the Outside Director Nomination Committee, the ESG Committee, and the Personnel Committee. The board identifies risks and opportunities in business areas through a risk management framework and reviews response strategies to both financial and non-financial risks and opportunities. The ESG Committee, in particular, sets objectives for ESG-related activities and reviews detailed action plans based on environmental and social responsibility policies.

Board Effectiveness

SK chemicals conducts an annual evaluation of the board's activities based on six categories including board evaluation, roles, responsibilities, operations, and composition, targeting its outside directors. In 2024(evaluation conducted in January 2025), the board received a score of 4.9 out of 5. The evaluation results were reported and discussed as a board agenda item and are utilized to improve future board operations.

Results of the Evaluation of the Activities of the Board of Directors



Board Training

SK chemicals provides support and training to ensure that outside directors can perform their professional duties on the board and its committees. Prior to board or committee meetings, sufficient materials are provided in advance for review, and additional briefing sessions are held when necessary.

2024 Outside Director Training Implementation Status

Date	Training Details	Outside Director Participants
2024.04.23 ~ 04.24	• Visit to Chinaplas Exhibition in China - Visited booths of global companies and industry peers, including discussions on recycling industry trends. • Invited a Chinese expert(professor from China University of Political Science and Law) to provide an in-depth explanation of China's political and economic landscape and industrial policies, followed by discussions from the perspective of our business strategy.	Moon Sung-hwan, Cho Hong-hee, Park Jeong-su, Kim Sunmee Choi
2024.09.26	• Visit to Ulsan Plant - Inspected key business production facilities - Reviewed ongoing plant projects - Checked the construction site of the subsidiary(MU)'s combined heat and power(CHP) plant	Moon Sung-hwan, Cho Hong-hee, Park Jeong-su, Kim Sunmee Choi
2024.11.26	• Climate Change Risks and Opportunities - Invited legal experts from Kim & Chang Law Firm	Moon Sung-hwan, Cho Hong-hee, Park Jeong-su, Kim Sunmee Choi

Status of Committee Operations within the Board

Category	Chair person	Roles	Key Agenda Items
Audit Committee	Cho Hong-hee	• Request for reporting on the business of the audit director on the performance of the duties of the audit committee director	• Prior review of approval for internal transactions • Deliberation on finalization of audit reports • Operation and evaluation of internal accounting control system • Reports on internal audit and ethical management activities
Outside Director Nominating Committee	Kim Sunmee Choi	• Recommendation of independent director candidates to be appointed by the General Shareholders' Meeting and other necessary matters for nominating independent director candidates as delegated by the Board	• Matters regarding recommendation of independent director candidates
ESG Committee	Park Tae-jin	• Identify and analyze various topics and issues related to ESG operations, providing advisory and review to the board of directors on management strategies and ESG direction for the company's sustainable growth	• Pre-review of major ESG matters across management • ESG materiality assessment • ESG performance and activity plans
Personnel Committee	Moon Sung-hwan	• Review of CEO evaluation and reappointment, appropriateness of internal directors' remuneration, as well as evaluation and remuneration determination for key executives	• Review of CEO KPIs • Review of CEO and key executive remuneration • Report on CEO reappointment and executive evaluations

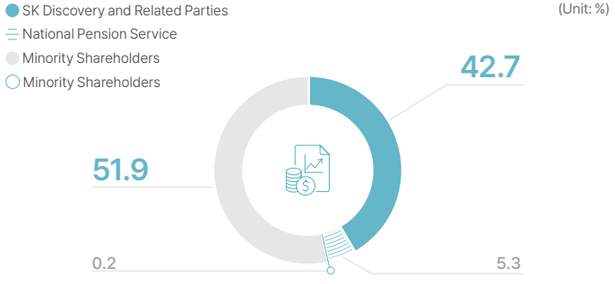
Responsible Governance

Promoting Shareholder-Friendly Management

Enhanced Shareholder Return

Since the corporate spin-off in 2017, SK chemicals has actively promoted shareholder returns in line with increased earnings. In October 2021, the company announced its medium-term dividend policy, setting the duration of the shareholder return policy to three years, with plans to review it afterward to establish a more shareholder-friendly environment. At the annual general meeting in March 2022, a provision for interim dividends was added to the articles of incorporation. Subsequently, an interim dividend was declared and paid in July, and in September, 2 percent of common shares were retired. Furthermore, at the February 2023 board meeting, a dividend payout exceeding the previously announced payout ratio(30 percent of separate net income excluding non-recurring gains and losses) was executed. In March 2024, the company amended its articles of incorporation to allow the board to determine the dividend record date, thereby enhancing the predictability of dividends. From the August interim dividend onward, the dividend process was improved to enable shareholders to confirm the dividend before making investment decisions.

Shareholder Composition Status



Shareholder Name	Number of Shares Owned(Shares)	Ownership Percentage(%)
SK Discovery Co., Ltd. and related parties	7,361,072	42.7
National Pension Service	907,747	5.3
Foreigners	1,943,144	11.3
Individuals and Corporations	7,010,963	40.6
Treasury Stock	30,857	0.2
Total Issued Shares	17,253,783	100.0

Record Date: December 31, 2024; Ownership based on common shares

Dividends and Dividend Rates

Category	Type of Stock	2022	2023	2024
Dividend per share(KRW)	Common Stock	1,500	650	1,150
	Preferred Stock	1,550	700	1,200
Dividend stock	Common Stock	17,222,926	17,222,926	17,222,926
	Preferred Stock	1,967,296	1,967,296	1,967,296
Return on cash dividends(%)*	Common Stock	1.9	1.0	2.8
	Preferred Stock	3.9	2.3	6.4

*2022 - 2023: Based on the end of each fiscal year(December 31), 2024: Based on the dividend resolution date(February 7)

Share Ownership by CEO and Executives

To enhance long-term corporate value and responsible management, SK chemicals grants stock options to executives with the approval of the general meeting of shareholders. These stock options are performance-based and linked to business performance targets. The articles of incorporation disclose details regarding eligible recipients and other criteria. At the regular shareholders' meeting in March 2025, 140,000 stock options were granted to President Jae-Hyun Ahn, the CEO. As of the end of May 2025, the CEO and registered executives collectively held 10,616 shares.

Management Stock Holding Status (As of May 30, 2025)

Shareholder Category		Number of Shares Owned(Shares)	Ownership Percentage(%)
Registered executives		10,616	0.06
Inside directors	Kim Cheol(CEO)	3,000	0.02
	Ahn Jae-hyun(CEO)	7,616	0.04
Outside directors	Moon Sung-hwan (Chairman of the Board)	0	-
	Cho Hong-hee	0	-
	Kim Sunmee Choi	0	-
	Park Tae-jin	0	-
Non-executive directors	Son Hyun-ho	0	-

Transparent Disclosure

To protect shareholder rights, SK chemicals holds an annual general meeting to share the company's management status and gather shareholder opinions on the company's direction and operations. Key management matters resolved by the board are disclosed immediately to shareholders and other stakeholders. In particular, major issues closely related to investor interests are disclosed transparently through the SK chemicals website, the Financial Supervisory Service's electronic disclosure system, and the Korea Exchange.

Risk Management

03.

RISK MANAGEMENT

Amid increasing uncertainty and complexity in the business environment, the importance of a proactive risk management system to support sustainable corporate growth and respond flexibly to various external factors is growing. Recently, not only traditional financial risks but also regulatory changes, technological developments, and social demands are emerging as significant risks. An integrated approach to identifying and managing these risks has become a global standard.
SK chemicals has established an enterprise-wide integrated risk management system that covers both financial and non-financial risks, with the Risk Management Secretariat at its core. Through this system, the company identifies risk factors across its business and establishes response strategies to grow into a resilient and sustainable enterprise.

Risk Management System

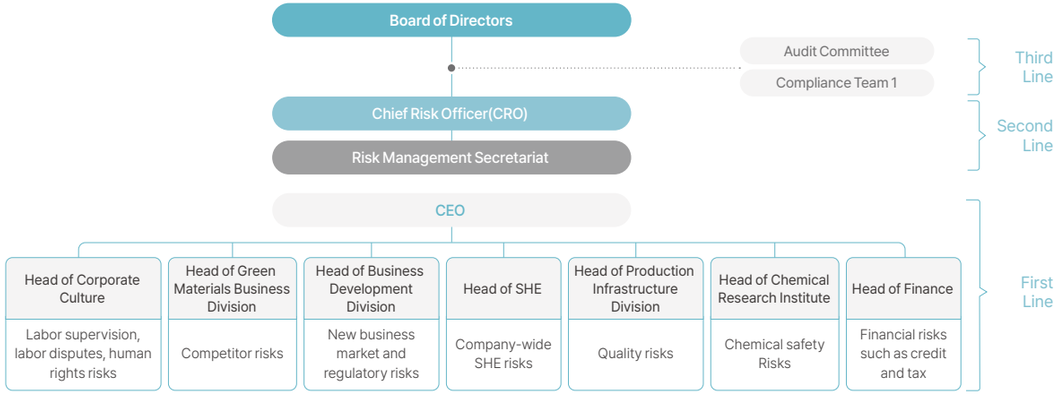
Risk Management Governance

To proactively identify and respond to risks that may impact the business due to rapidly changing internal and external environments, SK chemicals established the Risk Management Committee in December 2022 and built a comprehensive risk management system. By integrating risk management functions across finance, ethics/compliance, safety and health(SHE), climate change, and human rights, and linking financial and non-financial risk management organically, the company minimizes value volatility arising from uncertainty.
SK chemicals' risk management organization comprises operating departments responsible for managing risks, the Risk Management Secretariat responsible for monitoring, the Audit Committee and Compliance Team 1 responsible for company-wide audits, and the Board of Directors as the top decision-making body. Operating departments are composed of business units that identify and evaluate risks related to company-wide objectives through OKR workshops. Identified risks are reported to the CEO and managed in connection with KPI indicators. The Risk Management Secretariat operates independently from business departments to prevent potential conflicts of interest and compiles risk assessments to derive key risks, establish company-wide strategies, and monitor response progress. The Chief Risk Officer(CRO) reports the progress of key risk response tasks annually to the board through an independent reporting line. The board, as the highest decision-making body, sets risk response strategies and reviews their alignment with the company's overall ESG management system and strategy. In 2024, the board reviewed risk management performance for 2023 and discussed ways to enhance risk management by linking it to the company-wide OKR-based performance management system.

Strengthening Risk Management Capabilities

SK chemicals provides directors with training on ESG and legal and regulatory trends related to industry, equipping them with broader insights into potential risks. Regular risk management training for directors is conducted annually, and in 2024, the training focused on risks and opportunities related to climate change. Additionally, all employees receive training on managing risks related to industrial safety, human rights and sexual harassment, ethical management, and information security. Specialized sessions were also held focusing on greenwashing risks and regulatory risks associated with mandatory ESG disclosure. These efforts help foster an environment and culture in which executives and all departments actively participate in risk management.

Company-wide Risk Management Line Organization Chart



Risk Management training for Board Members

Date	Risk Type	Education Provider	Education Title	Attendees
2023. 10.31	Accounting audit risk	Samjong KPMG	Internal audit organization risk management roles and methods	Moon Sung-hwan, Park Jung-soo
2024. 11.26	Climate risk	Kim & Chang Law Office	Climate change risks and opportunity	Kim Cheol, Ahn Jae-hyun, Moon Sung-hwan, Cho Hong-hee, Park Jung-soo, Kim Sunmee Choi, Jeon Gwang-hyun

Risk Management

Risk Management Strategy

Risk Management Strategy

SK chemicals identifies and manages risks across its operations through a four-step integrated risk management process: risk identification and analysis, evaluation, response, and outcome reporting. In the risk identification and analysis phase, the company identifies financial and non-financial risks that may hinder business operations and evaluates them. It then derives key risks requiring focused management by comprehensively considering the results of these evaluations and the double materiality assessment. Response strategies are established and implemented to mitigate key risks. The company also continuously monitors its risk management activities and reports annual performance to the board.

Company-wide Integrated Risk Management Process

Risk Management System	Risk Management Operation Plan	Expected Effect
1.Risk identification and analysis • Identification and analysis of non-financial potential risks that may affect strategic/business objectives	• Risk identification using OKR Workshop and in-person interviews(quarterly)	Integrated company-wide risk management • Identification of risks managed at the operational organizational level
2.Risk evaluation • Risk assessment and derivation of key risks • Reflection of risks derived from materiality assessment	• Development and assessment of company-wide risk map based on impact and likelihood • Selection of key risks considering preferences and acceptable levels	Differentiated management according to risk importance • Determining management levels through risk assessment, focusing on key risks that require concentrated response
3.Risk response • Establishment and execution of risk response plans	• Understanding management's risk appetite and limits through OKR Workshop • Deriving , monitoring and implementing, key risk response measures • Reassessing risks and reviewing whether to maintain key risks(quarterly)	Strengthening moniroting of risk response status • Enhancing monitoring to ensure key risks are managed according to the management system within business lines
4.Risk outcome reporting • Annual risk management performance report to the Board of Directors(at least once a year)	• Ongoing reporting of risk identification/response status to CRO/CEO • Reporting risk management performance and significant risk occurrences to the Board of Directors	Company-wide level risk management at the Board of Directors level • Discussion of significant key risks at the Board of Directors level

Risk Identification and Evaluation Results

Risk Type	Contents	Likelihood	Impact
Capital flow risk*	• Risk of loss due to shortage of operating funds and during financing process	○	●
Foreign exchange*	• Sales/purchase exchange rate risk caused by exchange rate fluctuations triggered by political and geopolitical risks	◐	●
Climate change*	• Increased costs for new facility investments to reduce greenhouse gas emissions, increased production costs due to transition to Renewable Energy and low-carbon fuels, decreased sales of petroleum-based products	◐	●
Safety accident*	• Potential risks related to safety, health, and environment across overall management activities	○	●
Human rights	• Legal issues and corporate image damage arising from labor issues such as workplace harassment, discrimination, and gender issues such as gender discrimination	○	◐
Circular economy investments*	• Research and development and investment costs for manufacturing recycled plastics	●	●

* Items managed by including risk management indicators in related organizational executives' KPIs, evaluated with grades S, A, B, C based on achievement level against targets, with evaluation results linked to compensation system

Key Risk Response Strategy

Foreign Exchange Risk	
Risk summary	• Due to domestic and international political and geopolitical risks, exchange rate volatility has significantly increased, and the importance of managing financial risks caused by exchange rates is gradually rising. SK chemicals' overseas sales ratio is approximately 60% as of 2024, and imported raw materials are also included in purchases, exposing the company to foreign exchange risk.
Risk analysis and assessment	• At the end of 2024, the exchange rate rose significantly compared to previous years(KRW/USD exchange rate increased by KRW 185 compared to the previous year-end), representing a high financial impact risk, with high volatility maintained due to unstable international politics. SK chemicals regularly monitors net exposure to major currencies(USD, Euro, and Yen) based on expected sales and purchases over the upcoming 12 months to analyze and evaluate risks.
Risk response	• Based on monitoring results of foreign currency exposure from sales and purchases, foreign currency forward contracts are entered into to hedge risks arising from foreign exchange market volatility. This allows forecasting future foreign exchange cash flows and hedging foreign exchange risk.

Climate Change Risk	
Risk summary	• To respond to climate change, investments in facilities for carbon reduction and increased use of renewable energy/hydrogen fuel are necessary. While environmental regulations such as carbon tax may act as opportunities in the future, increased investment and operating costs may affect product costs.
Risk analysis and assessment	• An increase in CapEx is expected due to facility investments for climate change response, and financial impact is highly assessed due to increased production costs from current use of renewable energy/hydrogen fuel. As societal demands for climate change response strengthen, aiming to implement the Net Zero Plan, the likelihood is also above moderate.
Risk response	• Market demand for low-carbon products and Net Zero implementation is high, leading to a high risk preference. As factors directly affecting business, risk thresholds are set low for management. Greenhouse gas reduction performance is systematically monitored, with greenhouse gas emissions reflected as performance indicators in KPIs of the CEO and production executives, linked to the compensation system.

Risk Management

Addressing and Managing Risks

Definition and Management of Potential Risks

SK chemicals defines potential risks that may significantly impact its operations and carries out ongoing monitoring and response activities. The company identifies risks that may arise from technological, economic, social, and environmental factors in advance and takes proactive measures to minimize their long-term impact on business operations.

Potential Risk Response Strategy

Risk Factor	Financial Impact	Impact Level	Risk Response and Management Measures
Natural resource crisis	• Global consumption expansion, production intensification, and insufficient natural resource management are expected to further trigger shortages in resource supply such as chemicals, food, natural resources, and water. • The 2022 Russia-Ukraine war heightened tensions among various conflict countries worldwide and, combined with geopolitical risks surrounding resource zones, demonstrated that these resource issues could become serious economic problems. • The mid- to long-term natural resource crisis, intertwined with the supply chain collapse caused by the Russia-Ukraine war, led to a temporary increase in the price of copolyester raw material(PTA), a key material for our products last year, from $800 to $1,100 per ton. • Mid- to long-term increases in natural resource prices and commodity price volatility may affect our raw material procurement and supply chain stability, which could introduce uncertainty to our mid- to long-term profit-generating capabilities.	High	• SK chemicals is implementing measures to respond to raw material price fluctuations such as PTA and MEG arising from the natural resource crisis and to minimize financial losses. • In the short term, we mitigate and disperse raw material risks through continuous raw material monitoring, securing foreign currency, and ongoing business diversification. In the long term, we are pursuing fundamental diversification efforts such as diversifying manufacturing and chemical processes and developing alternative products.
Intensifying Competition for Securing Recycled Materials	• With strengthened regulations on recycled materials, increased demand, and improved production efficiency, competition for securing recycled materials is expected to intensify, potentially causing financial impacts. • The increased demand and supply shortage of recycled materials may increase price volatility of raw materials, which is expected to directly affect production costs and operating profit margins. • Additionally, rising raw material prices influence final product pricing, which may negatively impact SK chemicals' market competitiveness and profitability. • The supply chain for plastic recycled materials is vulnerable to external factors such as geopolitical risks and changes in environmental regulations. This increases the risk of supply chain collapse and is expected to affect stable business operations.	High	• SK chemicals is striving to minimize risks arising from intensified competition for recycled materials by diversifying raw material supply chains and expanding usable materials through technological innovation. • We secure supply chain stability and prepare for raw material price volatility by strengthening cooperation with various sources and signing long-term supply contracts. • Furthermore, through in-house technology development, we improve the quality and yield of recycled materials, enhancing cost reduction and resource efficiency.

Information Protection

04.

INFORMATION PROTECTION

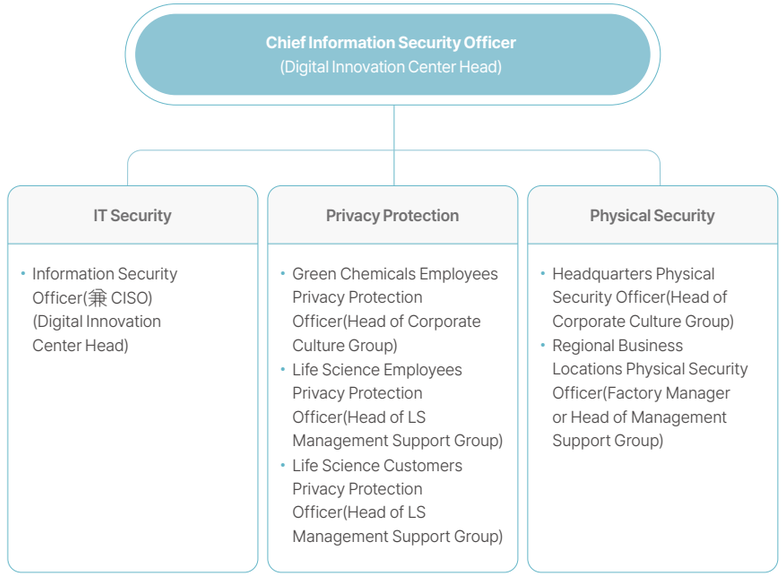
Due to the nature of the chemical industry, which handles highly sensitive information such as process technology, research data, and customer information, information protection has become a core task for maintaining corporate competitiveness, securing customer trust, and enabling sustainable growth. SK chemicals recognizes the importance of information protection and has been continuously strengthening its information protection management under a system reporting directly to the CEO. A structured information protection roadmap has been established to prevent internal data breaches. Through regular training and inspections, the company is making organization-wide efforts to create a safe and reliable work environment. SK chemicals will continue to enhance its information protection management system and grow into a leading company with global-level security capabilities.

Information Protection Management System

Information Protection Governance

SK chemicals manages information protection under the leadership of the Chief Information Security Officer(CISO), appointed by the CEO and serving as the head of the Digital Innovation Center. The CISO oversees budget and personnel management for the security organization. The roles and responsibilities of the security team members are stipulated in the "SK chemicals Security Management Regulations."

Information Security Management Organization Chart



Information Protection System

To prevent the leakage of confidential data, SK chemicals has introduced an anomaly monitoring system to protect key customer and corporate information assets. In response to threats arising from cloud and remote work environments, the company has implemented a Zero Trust strategy and established a centralized management platform that includes Cloud Access Security Broker(CASB) and Secure Web Gateway(SWG). The company regularly updates its information security policies(SK chemicals Security Management Regulations) and operates a systematic response system. Measures are taken to manage record retention schedules, protect third-party data from unauthorized access or disclosure, and ensure consent procedures are in place for handling, sharing, and storing confidential information. In 2023, the company obtained ISO/IEC 27001 certification, an international standard for information security management systems. Annual third-party certification audits are conducted to maintain the certification, and regular stability assessments of the security system are performed to systematically inspect IT infrastructure and information security management systems. In 2024, SK chemicals successfully passed the certification audit and received a "certification maintenance appropriate" evaluation. The company plans to continue strengthening its information security management system in line with global standards.

ISO 27001 Certification

DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of
SK Chemicals Co.,Ltd.
319 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13494, Republic of Korea

has been found to conform to the Information Security Management System standard
ISO/IEC 27001:2013

This certificate is valid for the following scope:
The management of information security system in all actions of information protection in the regard to ERP(Enterprise Resource Planning), MES(Manufacturing Execution System), Business Intelligence System, Purchase Portal, Master Data Management, MES(Manufacturing Execution System). This is in accordance with the Statement of Applicability Version 1.0

IAF

Information Protection

Information Protection Management System

Information Protection Activities

Internal Information Leak Control System

To systematically prevent information security breaches, SK chemicals operates a security portal. Matters requiring high-level security measures, such as document decryption, external VPN use, and the use of removable storage devices, are subject to internal approval via the portal. Regular audits are conducted to ensure the effectiveness of these control procedures. The company has also enhanced its real-time monitoring system for internal information to detect suspicious activity or information leakage. A clarification management system has been introduced to ensure transparency in employee actions and enable timely responses, thereby ensuring the safety of internal information.

Cyber Risk Management

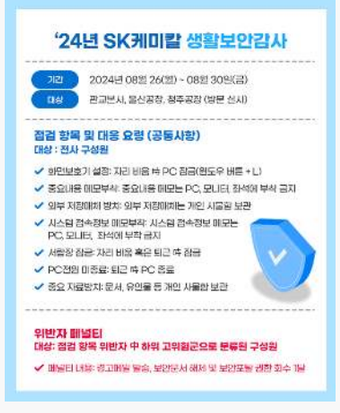
To address the increasing security threats on the dark web and from cloud environments, SK chemicals has established monitoring systems. The system enables monitoring of security threats in the cloud environment in real time, swiftly identify risk factors to enhance our incident response system, and prompt detection of leaked information and malicious activities on the dark web. In addition, we leverage a Cloud Security Posture Management(CSPM) solution to monitor security vulnerabilities, configuration errors, and regulatory non-compliance within our cloud infrastructure.

Security Council Activities

As a member company of the SK Group Security Council, SK chemicals has identified areas for improvement in protecting corporate confidentiality and responding to malicious attacks through in-depth security diagnostics conducted by the SUPEX Council. The company also learns from best practices shared by other SK sister companies through the information security working-level council, continuously improving its information security standards.

Information Protection Campaigns and Inspections

SK chemicals strengthens its security review process when introducing new solutions to ensure the reliability of work systems and regularly diagnoses vulnerabilities. As part of efforts to raise awareness and conduct internal information security inspections, simulated phishing email training is conducted regularly. An eight-week "Information Security Campaign" is held to raise awareness about handling malicious emails, document security, and everyday security. On "Security Day," compliance with internal standards and the implementation status of inspection items are reviewed. The company plans to deepen offline inspections by upgrading outdated systems, enhancing internal firewalls, monitoring the number and reasons for security exceptions, and conducting regular security audits, with the aim of maintaining a record of zero security violations.



CASE Study : Information Security Vulnerability Test

SK chemicals conducts simulated malicious email training twice a year for employees, enhancing their security awareness to reduce malware infection rates and providing guidance on response procedures upon receipt.

- **2024 1st Half Simulated Training Results**
  - **Training Period:** 2024.04.15 ~ 2024.04.26
  - **Training content**
    Inducing email opening, link clicking, and attachment execution through training emails; infection with training malware upon link click or attachment execution.
  - **Result**
    18.3% of 2,760 trainees were infected with training malware.
  - **Action**
    Warning emails sent or PC inspection and recovery process authorization revoked depending on infection level.

Information Security Audit

External Audit

- Security diagnosis and audit by SK Group Autonomous Responsible Management Support Office(Once a year)
  - Diagnosis of company-wide security across five areas (Governance, Cybersecurity risk management, System security, Leakage control, Physical security)
  - Derivation of improvement tasks and audit of implementation status
- ISO 27001 certification audit(Once a year)
  - Vulnerability checks on audited services and qualification maintenance audit

Internal Audit

- Company-wide daily security audit(Once a year)
  - Audit of compliance with security regulations and procedures for all employees: investigation of unauthorized external storage device usage traces

Information Protection

Information Incident Prevention and Response Process

To prepare for security incidents, SK chemicals has established response guidelines through its Security Incident Response Procedure. This document defines incident classification by impact level and outlines reporting thresholds. In the event of a security incident, the company follows a "report first, respond later" policy and has a step-by-step post-incident process in place. The company continues to strengthen this incident prevention and response process. As of 2024, the number of information security violations, cybersecurity incidents, and data breaches was zero.

Information Security Incident Response Procedures

STEP 1. Preparation before Incident	Security incident response organization structure, establishment of emergency contact system, awareness enhancement through information security training
STEP 2. Incident Detection	Information asset monitoring, anomaly detection and analysis
STEP 3. Initial Response	Initial analysis, security incident declaration, definition and scope identification of security incident
STEP 4. Systematization of Response Strategy	Evidence data collection/protection, emergency measures by intrusion type
STEP 5. Incident Investigation	Analysis of all anomalies, collection and preservation of traces, files, and other information
STEP 6. Report Preparation	Recording of analysis, actions, and reporting details
STEP 7. Resolution	Restoration of damage caused by breach to previous state, establishment of recurrence prevention measures

Business Continuity Planning for Information Security

To prepare for unforeseen events such as natural disasters and security incidents, SK chemicals has developed a Business Continuity Plan(BCP). The BCP includes emergency procedures, data backup strategies, and work resumption sequences. Based on security management regulations, the plan defines recovery time objectives and recovery point objectives, and the plan is reviewed regularly through simulation drills.

Information and Personal Data Protection Training

SK chemicals provides regularly updated, customized personal data protection and information security training to both employees and supplier employees as part of efforts to raise awareness and enhance capabilities in information security. Training for employees includes sessions on personal data protection, general security awareness, and onboarding security training for new hires. Customized security training is also provided to business partners. To increase accessibility, the company has established an online training system to facilitate broader participation. Since 2020, SK chemicals has been providing online security training to our employees and those of our partner companies. In 2024, the completion rate of personal data protection and security training among employees was 100%, and the completion rate among partner companies was 100%.

2024 Information Security Awareness Improvement Campaign

1st Session
Malicious Email Awareness Enhancement

2nd Session
Mobile Storage Device Policy Guidance

3rd Session
Document Security Compliance

4th Session
Information Security Daily Rules

Research & Development

05.

RESEARCH & DEVELOPMENT

As environmental issues become more prominent, research and development activities related to plastic recycling, which replaces the depletion of natural capital and reduces waste, and bio-based plastics that can reduce carbon emissions are becoming increasingly important, moving away from traditional petroleum-based chemical research. The pharmaceutical industry also requires continuous investment and R&D to expand its business pipeline.

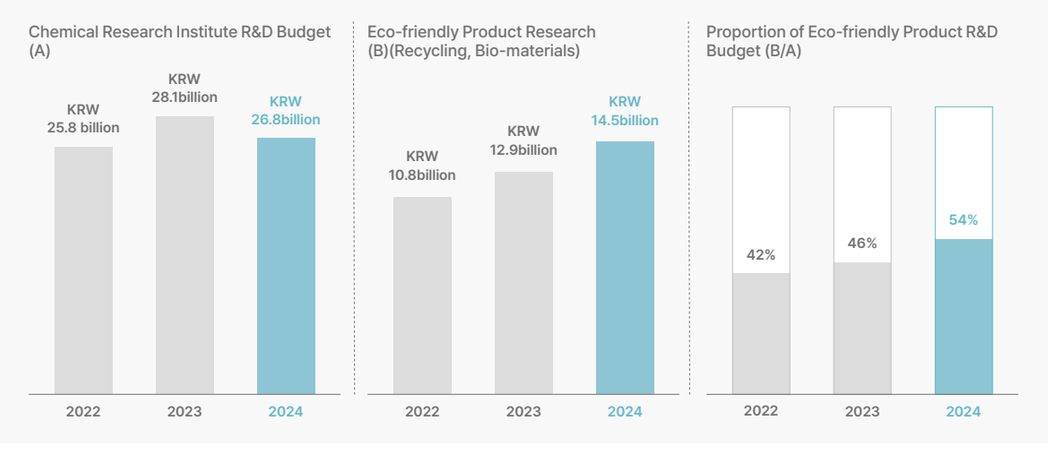
The Green Chemicals business of SK chemicals is expanding its research and development based on chemical recycling technology. The Pharma business is generating research outcomes by strengthening cooperation with external institutions through joint research and investments in venture companies.

Green Chemicals Business

R&D Strategy

The Chemical Research Institute of SK chemicals is advancing research and development focused on plastic recycling and new bio-materials, moving beyond conventional petroleum-based research to secure environmentally friendly and sustainable core capabilities. Building on more than 50 years of expertise in polyester polymerization and processing technology, as well as in developing new polymers, the center has successfully commercialized next-generation materials and products. These include recycled raw materials derived from waste plastics, polyester that contains recycled materials or is recyclable as PET, and bio-polyol derived from bio-alcohol. Investment in the eco-transition field, represented by recycling and bio-materials, has grown significantly from 11% in 2020 to 29% in 2021 and further to 42% in 2022, surpassing the initial target of 34%. By 2024, the investment reached approximately 54%, and the company plans to maintain this level above 50% of total R&D expenditure for the next five years. In addition to in-house R&D, SK chemicals is actively identifying key external technology partners, upgrading leading technologies, developing new business models through technology-based partnerships, and strengthening research capabilities through strategic collaboration with domestic and global research institutions. These efforts align with global eco-friendly trends and aim to maintain and expand the company's competitiveness in future sustainable markets.

Research and Development Investment Amount



R&D Achievements

SK chemicals is delivering sustainable packaging solutions that include products either containing recycled materials or designed to be recyclable as PET after use. Leveraging the strengths of chemical recycling technology, which maintains material properties without degradation, the company has achieved significant results in high-value portfolios such as cosmetic and food containers.

Following the 2023 acquisition of Chinese company Shuye's circular recycled raw material business, SK chemicals established Shuye-SK chemicals(Shantou)Co., Ltd. to conduct active research for the stable production of r-BHET, a circular recycled raw material. In response to global plastic regulations and evolving customer demands, the company is continuously developing products that are easier to recycle and have a higher recycled content. Research is also expanding into the recycling of hard-to-recycle materials such as textiles and films, which were previously unsuitable for mechanical recycling. Through bio-polyol research, SK chemicals is delivering bio-based solutions for polyurethane and elastic yarn applications. In 2024, the application of bio-based polyurethane for automotive interior materials was extended from electric vehicles to internal combustion engine models, and bio-based shoe materials(soles and uppers) were developed and introduced to global brands. Additionally, the company is actively conducting joint research with textile manufacturers to provide bio-based elastic yarn solutions to the textile market.

Research & Development

Pharma Business

R&D Strategy

SK chemicals' Pharma research institute division pursues a strategy to secure future value by continuously investing in internal research resources and expanding its pipeline through collaboration with external institutions. Due to the complexity and high costs of new drug development in the pharmaceutical industry, collaboration through open innovation is essential. SK chemicals actively conducts research and development through open innovation, investing to effectively utilize both internal resources and external knowledge and technology. This approach reduces R&D costs and development time while increasing the likelihood of success and enabling the creation of high-value products. Moreover, the company is collaborating with global AI technology firms to identify new drug candidates using AI technology and is conducting efficient compound screening for efficacy and toxicity to shorten the traditional drug development timeline. SK chemicals plans to continue strengthening its Pharma R&D capabilities and prepare for future drug development.

Research and Development Investment

R&D Achievements

In 2021, SK chemicals invested in a new drug development venture company and began joint research to secure a new pipeline. Significant candidate compounds were identified in the early stages of research, leading to the filing and registration of multiple new drug-related patents. The company is currently conducting preclinical trials based on the identified candidates and continues to discover additional compounds using AI technology in partnership with external collaborators. The company has also actively worked to strengthen its product portfolio by developing competitive products. A CDMO contract was signed with the global pharmaceutical company AstraZeneca, leading to domestic approval and launch of a new diabetes combination drug, which is currently being manufactured and supplied. Approval reviews are underway in multiple countries for global market expansion. At the end of 2023, SK chemicals received approval for an improved formulation and dosage of an arthritis treatment and is preparing for its launch. The company also conducted domestic clinical research on a Parkinson's disease treatment, publishing the results in an SCIE-indexed journal. In 2024, SK chemicals launched "Suvexx Tab," a migraine treatment combination drug that combines two ingredients into a single tablet. This product is the first of its kind in the domestic migraine treatment market, which previously relied on single-ingredient prescriptions, and is expected to enhance treatment and administration convenience while offering more options to patients.

SK chemicals was recognized for its R&D achievements and was successfully re-certified as an Innovative Pharmaceutical Company in 2024. This certification, granted by the Ministry of Health and Welfare under the "Special Act on Fostering and Supporting the Pharmaceutical Industry," recognizes companies with outstanding achievements in new drug R&D since 2012. Certification is renewed every three years following an initial two-year cycle, and SK chemicals has maintained its certification for 12 years since 2012 through meaningful R&D achievements.

Strengthening Open Innovation Capabilities

SK chemicals' Pharma division reorganized its structure by relocating the Bio Investment Team under the Strategic Planning Office and renaming it the Open Innovation Team. This team seeks open innovation opportunities aligned with corporate strategy and will continuously identify partnerships for investment and joint research to secure a new pipeline.

The Pharma R&D New Drug Development Team also conducts research using AI technology and, in cooperation with the Open Innovation Team, will identify and collaborate with leading domestic and international big data researchers and AI-based new drug development firms. By enhancing the specialization of both teams and fostering synergy through organic collaboration, SK chemicals plans to further strengthen its open innovation competitiveness.

Open Innovation Achievements and Targets

The New Drug Development Team recently identified promising candidate compounds in oncology and rare fibrotic diseases and is continuing research to optimize these compounds. Since 2019, SK chemicals has been conducting joint research with Standigm, an AI-based new drug development firm, and is preparing efficacy testing in animal models for a meaningful candidate compound targeting rare fibrotic diseases. Joint research with Oncobix, a company specializing in innovative drug development, began in 2022. A candidate compound for anticancer drug development showed significant efficacy in animal models and is currently undergoing optimization trials. Going forward, SK chemicals will identify diverse partners to pursue additional new drug development through active open innovation strategies. As results materialize, additional resources will be invested to accelerate progress and maximize outcomes.

Research & Development

Strengthening Research Ethics

Animal Protection Policy

Pharmaceuticals I SK chemicals' Pharma Research Center adheres to research ethics in animal testing by minimizing animal suffering and reducing the number of animals used in the preclinical stage for efficacy evaluation of drug candidates before conducting clinical trials. This is achieved through regular training and compliance with relevant regulations.
The New Drug Development Team has introduced AI-based in silico screening methods in the drug development process, enabling the prediction of efficacy, toxicity, and pharmacokinetics of drug candidates using AI programs. This enhances the accuracy of candidate selection and is expected to minimize animal testing compared to traditional drug development methods.

Vaccines I SK bioscience conducts animal testing as part of research from nonclinical to clinical stages, including for the COVID-19 vaccine. For commercial production products, animal testing is used to verify safety and efficacy. A management system has been established for ethical oversight during animal testing, and related training is conducted to raise ethical awareness among participants.
To this end, SK bioscience has established an Institutional Animal Care and Use Committee(IACUC) in accordance with the standard operation guidelines issued by the Ministry of Food and Drug Safety. The committee promotes the protection and ethical treatment of laboratory animals, ensuring ethical standards and reliability in animal testing by complying with the Animal Protection Act and laws related to laboratory animals. The IACUC holds regular meetings twice a year to review the processes related to the use and management of laboratory animals, seeks advice as necessary, and reviews compliance with standard operating procedures(SOPs) and relevant laws. The committee then supplements the management system based on IACUC consultation.

The IACUC also conducts on-site visits to evaluate the ethical and scientific validity of animal testing and oversees education and training. During the COVID-19 pandemic, when on-site inspections were difficult, remote inspections using photographs were conducted. When reviewing animal test plans, the committee applies the 3Rs principle(Replacement, Reduction, Refinement), giving priority to alternatives to animal testing and approving only those plans that respect the dignity of animal life. Post-Approval Monitoring(PAM) is also conducted to monitor the animal testing process in collaboration with researchers, aiming to improve animal welfare and ensure the reliability and transparency of experimental results. Personnel involved in animal testing are required to complete mandatory training on animal handling and ethics and are encouraged to participate in periodic retraining to reinforce the importance of ethical management in animal research.

International Standard Compliance

SK chemicals' Pharma Research Center has established a globally compliant system to practice research ethics and pursue quality and safety management, fair competition, and responsible marketing. As part of these efforts, Data Integrity(DI) was introduced in 2022 to strengthen the assurance system for pharmaceutical quality, and the initial setup was completed in 2023. Data Integrity is a basic requirement of the pharmaceutical quality system that ensures data is managed transparently to prevent tampering. In addition, an electronic lab notebook(ELN) system has been adopted to digitize all research data from the initiation to the completion of research and to manage research outputs systematically. A dedicated manager has been assigned within the research center to oversee the system. Research activities are conducted in compliance with DI guidelines, and management practices are continuously improved to enhance research ethics.

ESG DATA

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Financial Disclosure

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Non-Financial Disclosure

FINANCIAL DISCLOSURE

Economic Value

Category			Unit	2022	2023	2024	Remarks
Production volume	Green Chemical Business	Copolyester resin, DMT, etc.	ton	376,686	331,000	414,000	
		BON		10,758	11,000	11,000	
	Life Science Business	Vaccines	Batch	110	269	215	
		Tablets	Tablet	730,204,000	652,702,000	639,795,000	
		Patches	Patch	41,112,000	39,374,000	38,178,000	
Sales by business sector	Green Chemical Business	Copolyester resin, DMT, etc.	KRW 100 million	14,019	12,401	14,736	
	Life Science Business	Pharma		3,139	2,060	3,572	
		Vaccines		4,567	1,085	2,675	
	Other	Internal transactions (consolidation adjustment)		-3,434	-2,661	- 3,616	
		Total Sales		18,292	12,884	17,368	
R&D investment	Green Chemical Business	Number of R&D employees	Person	119	119	106	
		R&D investment	KRW 100 million	258	281	268	
		Sales to R&D investment ratio	%	1.8	2.3	1.8	
		R&D investment in clean tech	KRW 100 million	108	129	145	
	Life Science Business(Pharma)	Number of R&D employees	Person	64	73	75	
		R&D investment	KRW 100 million	164	160	184	
		Sales to R&D investment ratio	%	5.2	7.8	5.1	
	Life Science Business(Vaccines)	Number of R&D employees	Person	289	319	315	
		R&D investment	KRW 100 million	591	857	764	
		Sales to R&D investment ratio	%	12.9	79.1	28.6	
Intellectual property rights	Applied[1]	Patent-Domestic	Number	29	36	49	
		Patent-Overseas		54	84	179	
		Trademark-Domestic		18	3	2	
		Trademark-Overseas		-	2	41	
	Registered[1]	Patent-Domestic		23	30	20	
		Patent-Overseas		65	77	54	
		Trademark-Domestic		2	21	3	
		Trademark-Overseas		3	-	11	

1) The figures for patent applications and registrations disclosed last year have been corrected due to a change in the calculation method based on the business report

Summary of Consolidated Financial Information

Category		Unit	2022	2023	2024	Remarks
Financial	[Current assets]	KRW 1 million	2,518,694	2,204,427	2,385,758	
	- Quick assets		2,035,941	1,827,509	1,820,272	
	- Inventories		482,753	376,918	565,486	
	[Non-current assets]		1,426,989	1,954,348	2,981,290	
	- Investments in associates and joint ventures		13,309	10,418	9,427	
	- Tangible properties		1,193,131	1,601,634	2,459,231	
	- Intangible assets		51,777	54,204	162,978	
	- Other non-current assets		168,772	288,093	17,164	
	Total assets		3,945,683	4,158,775	5,367,049	
	[Current liabilities]		1,058,819	830,211	983,246	
	[Non-current liabilities]		177,958	652,790	1,227,850	
	Total liabilities		1,236,777	1,483,001	2,211,096	
	[Equity attributable to owners of the parent]		2,146,699	2,118,704	2,200,693	
	- Issued capital		98,794	98,794	98,794	
	- Consolidated capital surplus		1,199,035	1,212,422	1,240,117	
	- Consolidated other capital items		(21,645)	(21,645)	-21,645	
	- Consolidated accumulated other comprehensive income		1,918	(37,378)	22,397	
	- Consolidated retained earnings		868,597	866,511	861,030	
	[Non-controlling interests]		562,207	557,070	832,273	
	Total equity		2,708,906	2,675,774	3,032,966	
	Total liability and equity		3,945,683	4,158,775	5,367,049	
	Number of companies included in the consolidation		10	11	14	
Profit & Loss	Sales	KRW 1 million	1,829,191	1,748,778	1,736,779	
	Operating income(Loss)		230,481	83,302	-45,176	
	Net income(loss) before income taxes		236,701	52,419	-27,441	
	Consolidated net profit(loss) for the year		231,476	47,838	-4,365	
	Attribution of consolidated net profit(loss) for the year					
	Equity Attributable to Owners of the Parent		191,266	39,864	8,839	
	Non-controlling interests		40,210	7,974	-13,203	
	Earnings per share attributable to owners of the parent					
	Earnings per share for common stock(unit: KRW)		9,910	2,072	376	
	Diluted earnings per share for common stock(unit: KRW)		9,960	2,071	375	
	Earnings per share for preferred stock(unit: KRW)		9,870	2,122	1,200	

NON-FINANCIAL DISCLOSURE

* The reporting scope for non-financial performance is primarily based on the headquarters and research center(ECO Lab), as well as the Ulsan and Cheongju(S House) sites operated by SK chemicals Co., Ltd. In certain cases, data from major domestic subsidiaries such as SK bioscience and SK Multi Utility, as well as overseas manufacturing and sales subsidiaries and SK chemicals Daejung, are also included. Where the scope of inclusion differs, it is separately indicated.

Environment | General

Environmental Investment[1)]

Business Site	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	KRW 100 million	76.7	48.8	58.0	
SK chemicals(Only)		74.2	45.4	20.3	
SK bioscience		2.5	3.4	5.2	
SK chemicals Yantai Co., Ltd		-	-	0.2	
Shuye-SK chemicals(Shantou)Co., Ltd.		-	-	32.3	

1) Recalculation of 2022 and 2023 data due to changes in environmental investment aggregation method

Violation of Environmental Laws and Regulations

Business Site	Category	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	Total Number of violations	Number	0	0	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	0	0	0	
SK chemicals(Only)	Total Number of violations	Number	0	0	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	0	0	0	
SK chemicals(ECO Lab)	Total Number of violations	Number	0	0	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	0	0	0	
SK chemicals(Ulsan Plant)	Total Number of violations	Number	0	0	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	0	0	0	
SK chemicals(Cheongju Plant)	Total Number of violations	Number	0	0	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	0	0	0	
SK bioscience	Total Number of violations	Number	0	0	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	0	0	0	
SK multi utility	Total Number of violations	Number	0	0	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	0	0	0	
SK chemicals Yantai Co., Ltd	Total Number of violations	Number	-	-	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	-	-	0	
Shuye-SK chemicals (Shantou)Co., Ltd.	Total Number of violations	Number	-	-	0	
	Total amount of penalty and fine(Above $10,000)	KRW 1 million	-	-	0	

Eco-Friendly Vehicles[1)]

Business Site	Category	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	Number of eco-friendly vehicles	Number	8	17	21	
	Number of total vehicles		74	106	119	
	Percentage of eco-friendly vehicles	%	10.8	16.0	17.6	
SK chemicals(Only)[2)]	Number of eco-friendly vehicles	Number	5	10	11	
	Number of total vehicles		35	47	46	
	Percentage of eco-friendly vehicles	%	14	21	24	
SK bioscience[3)]	Number of eco-friendly vehicles	Number	3	3	6	
	Number of total vehicles		39	42	50	
	Percentage of eco-friendly vehicles	%	8	7	12	
SK multi utility	Number of eco-friendly vehicles	Number	0	1	1	
	Number of total vehicles		0	1	2	
	Percentage of eco-friendly vehicles	%	0	100	50	
SK chemicals Yantai Co., Ltd.	Number of eco-friendly vehicles	Number	-	2	2	
	Number of total vehicles		-	4	4	
	Percentage of eco-friendly vehicles	%	-	50	50	
Shuye-SK chemicals(Shantou)Co., Ltd.	Number of eco-friendly vehicles	Number	-	-	0	
	Number of total vehicles		-	-	5	
	Percentage of eco-friendly vehicles	%	-	-	0	
SK chemicals Shanghai Co., Ltd.	Number of eco-friendly vehicles	Number	-	0	0	
	Number of total vehicles		-	4	4	
	Percentage of eco-friendly vehicles	%	-	0	0	
SK chemicals America	Number of eco-friendly vehicles	Number	-	0	0	
	Number of total vehicles		-	2	2	
	Percentage of eco-friendly vehicles	%	-	0	0	
SK chemicals GmbH	Number of eco-friendly vehicles	Number	-	1	1	
	Number of total vehicles		-	4	4	
	Percentage of eco-friendly vehicles	%	-	25	25	
SK chemicals Malaysia	Number of eco-friendly vehicles	Number	-	0	0	
	Number of total vehicles		-	1	1	
	Percentage of eco-friendly vehicles	%	-	0	0	
SK chemicals Japan Branch	Number of eco-friendly vehicles	Number	-	0	0	
	Number of total vehicles		-	1	1	
	Percentage of eco-friendly vehicles	%	-	0	0	

1) Eco-friendly vehicles: Defined as electric vehicles, hydrogen vehicles, and hybrid vehicles 2) Correction of previously disclosed data due to expansion of the data boundary
3) Correction of previously disclosed data due to misstatement in historical data

NON-FINANCIAL DISCLOSURE

Environment | Energy

Energy Consumption[1)]

Business Site	Category	Unit	2022	2023	2024	Remarks
Total[2)] (Including subsidiaries)	Total energy consumption	TJ	7,502	6,992	7,951	
	Direct use of energy sources		4,854	4,581	5,379	
	Liquefied natural gas(LNG)		821	676	864	
	Propane		428	297	315	
	Gasoline		5	5	7	
	Diesel		12	19	15	
	Hydrogen		0	55	200	
	Otther		3,587	3,530	3,977	
	Indirect use of energy sources		2,648	2,410	2,573	
	Electricity		2,594	2,263	2,403	
	Steam		54	147	170	
	Electricity use intensity[4)]	TJ / KRW 100 million	0.4	0.4	0.5	
SK chemicals(Only)[3)]	Total energy consumption	TJ	4,789	3,975	4,258	
	Direct use of energy sources		1,356	1,134	1,341	
	Liquefied natural gas(LNG)		685	534	562	
	Propane		428	297	315	
	Gasoline		2.3	2.3	2.2	
	Diesel		2.0	6.0	2.0	
	Hydrgoen[5)]		0	55	200	
	Other		238	239	259	
	Indirect use of energy sources		3,433	2,842	2,918	
	Electricity		1,436	1,290	1,357	
	Steam	TJ	1,997	1,552	1,561	
	Electricity use intensity[4)]	TJ / KRW 100 million	0.4	0.3	0.3	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK bioscience	Total energy consumption	TJ	384	401	396	
	Direct use of energy sources		104	115	104	
	Liquefied natural gas(LNG)		99	114	101	
	Gasoline		2	1	3	
	Diesel		3	0.02	0.1	
	Other		0.2	0.2	0.01	
	Indirect use of energy sources		280	285	291	
	Electricity		273	279	284	
	Steam		7	6	7.6	
	Electricity use intensity[4)]	TJ / KRW 100 million	0.08	0.11	0.25	
SK multi utility	Total energy consumption	TJ	4,251	4,014	4,327	
	Direct use of energy sources		3,355	3,303	3,620	
	Liquefied natural gas(LNG)		0	0	147	
	Gasoline		0.016	0.016	0.05	
	Diesel		7	12	11	
	Other		3,349	3,290	3,463	
	Indirect use of energy sources		895	711	706	
	Electricity		868	677	658	
	Steam		28	34	48	
	Electricity use intensity[4)]	TJ / KRW 100 million	3.1	3.0	3.4	

1) Some figures may differ from those disclosed in the previous year due to rounding and truncation differences.
2) Duplicate energy consumption between entities has been excluded.
3) Energy consumption data for SK chemicals(only) in 2022 and 2023 has been corrected due to adjustments in calculation criteria and the addition of subcategories under "Other energy sources.
4) Electricity use intensity is calculated based on consolidated revenue for the total company, and based on separate revenue for SK chemicals(only), SK bioscience, and SK multi utility.
5)Figures from the previous year have been corrected due to changes in the calculation method(calorific value).

NON-FINANCIAL DISCLOSURE

Environment | Energy

Energy Consumption

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Yantai Co., Ltd.	Total energy consumption	TJ	66	138	173	
	Direct use of energy sources		38	31	55	
	Liquefied natural gas(LNG) Gasoline		38	30	54	
	Gasoline		0.6	0.5	0.5	
	Diesel		0.2	0.2	0.1	
	Other		-	-	-	
	Indirect use of energy sources		28	107	118	
	Electricity		28	23	28	
	Steam		-	84	90	
Shuye-SK chemicals(Shantou)Co., Ltd	Total energy consumption	TJ	-	-	327	
	Direct use of energy sources		-	-	257	
	Liquefied natural gas(LNG) Gasoline		-	-	-	
	Gasoline		-	-	0.7	
	Diesel		-	-	1.1	
	Other		-	-	255	
	Indirect use of energy sources		-	-	70	
	Electricity		-	-	70	
	Steam		-	-	-	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Shanghai Co., Ltd.	Total energy consumption	TJ	-	0.58	0.52	
	Direct use of energy sources		-	0.53	0.48	
	Liquefied natural gas(LNG) Gasoline		-	-	-	
	Gasoline		-	0.53	0.48	
	Diesel		-	-	-	
	Other		-	-	-	
	Indirect use of energy sources		-	0.050	0.046	
	Electricity		-	0.050	0.046	
	Steam		-	-	-	
SK Chemicals America	Total energy consumption	TJ	-	0.173	0.175	
	Direct use of energy sources		-	0.096	0.105	
	Liquefied natural gas(LNG) Gasoline		-	0.002	0.0003	
	Gasoline		-	0.095	0.105	
	Diesel		-	-	-	
	Other		-	-	-	
	Indirect use of energy sources		-	0.076	0.070	
	Electricity		-	0.076	0.070	
	Steam		-	-	-	

NON-FINANCIAL DISCLOSURE

Environment | Energy

Energy Consumption

Business Site	Category	Unit	2022	2023	2024	Remarks
SK Chemicals GmbH	Total energy consumption	TJ	-	0.51	0.49	
	Direct use of energy sources		-	0.48	0.46	
	Liquefied natural gas(LNG) Gasoline		-	0.074	0.074	
	Gasoline		-	0.088	0.082	
	Diesel		-	0.32	0.30	
	Other		-	-	-	
	Indirect use of energy sources		-	0.026	0.033	
	Electricity		-	0.026	0.033	
	Steam		-	-	-	
SK Chemicals Malaysia	Total energy consumption	TJ	-	0.11	0.09	
	Direct use of energy sources		-	0.09	0.07	
	Liquefied natural gas(LNG) Gasoline		-	-	-	
	Gasoline		-	0.09	0.07	
	Diesel		-	-	-	
	Other		-	-	-	
	Indirect use of energy sources		-	0.02	0.02	
	Electricity		-	0.02	0.02	
	Steam		-	-	-	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Japan Branch	Total energy consumption	TJ	-	0.07	0.07	
	Direct use of energy sources		-	0.03	0.03	
	Liquefied natural gas(LNG) Gasoline		-	-	-	
	Gasoline		-	0.03	0.03	
	Diesel		-	-	-	
	Other		-	-	-	
	Indirect use of energy sources		-	0.04	0.04	
	Electricity		-	0.04	0.04	
	Steam		-	-	-	
SK chemicals Daejeong	Total energy consumption	TJ	-	9.1	8.3	
	Direct use of energy sources		-	-	-	
	Liquefied natural gas(LNG) Gasoline		-	-	-	
	Gasoline		-	-	-	
	Diesel		-	-	-	
	Other		-	-	-	
	Indirect use of energy sources		-	9.1	8.3	
	Electricity		-	6.4	5.7	
	Steam		-	2.7	2.6	

NON-FINANCIAL DISCLOSURE

Environment | Energy

Renewable Energy Consumption

Business Site	Category	Unit	2022	2023	2024	Remarks
Total	Total renewable energy Consumption	MWh	9	1,361	7,980	
	Solar power		9	1,361	7,980	
	Renewable energy share[1]	%	0.003	0.6	3.0	
SK chemicals(Only)	Total renewable energy Consumption	MWh	9	1,361	6,134	
	Solar power		9	1,361	6,134	
	Renewable energy share[2]	%	0.01	1.0	4.3	
SK bioscience	Total renewable energy Consumption	MWh	0	0	0	
	Solar power		0	0	0	
	Renewable energy share	%	0	0	0	
SK multi utility	Total renewable energy Consumption	MWh	0	0	0	
	Solar power		0	0	0	
	Renewable energy share	%	0	0	0	
Shuye-SK chemicals(Shantou)Co., Ltd.	Total renewable energy Consumption	MWh	0	0	1,846	
	Solar power		0	0	1,846	
	Renewable energy share	%	0	0	9.47	
SK chemicals Yantai Co., Ltd.	Total renewable energy Consumption	MWh	0	0	0	
	Solar power		0	0	0	
	Renewable energy share	%	0	0	0	

1) The company-wide renewable energy share refers to the ratio of total renewable energy generation to total electricity consumption on a consolidated basis.
2) The previously disclosed data has been corrected due to changes in the calculation criteria for renewable energy use by SK chemicals(only).

External Energy Sales

Business Site	Category	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	Total external electricity sales	TJ	6,364	5,325	5,459	
	Electricity		1,565	1,405	1,653	
	Heat		4,799	3,920	3,806	
SK multi utility	Total external electricity sales		6,364	5,325	5,459	
	Electricity		1,565	1,405	1,653	
	Heat		4,799	3,920	3,806	

NON-FINANCIAL DISCLOSURE

Environment | Greenhouse Gas

GHG Emissions(Scope 1, 2)[1]

Business Site	Category	Unit	2022	2023	2024	Remarks
Total[2](Including subsidiaries)	Total GHG emissions(Scope 1, 2)	tCO_2eq	497,978	478,164	539,549	
	Direct GHG emissions(Scope 1)		372,861	357,287	408,724	
	Indirect GHG emissions(Scope 2)		125,117	120,877	130,825	
	GHG emissions intensity[4]	tCO_2eq/ KRW 100 million	27.2	27.3	31.1	
SK chemicals(Only)[3]	Total GHG emissions(Scope 1, 2)	tCO_2eq	263,606	220,848	222,394	
	Direct GHG emissions(Scope 1)		61,088	46,242	47,757	
	Indirect GHG emissions(Scope 2)		202,518	174,606	174,637	
	GHG emissions intensity[4]	tCO_2eq/ KRW 100 million	21.0	17.9	16.6	
SK bioscience	Total GHG emissions(Scope 1, 2)	tCO_2eq	18,493	19,616	19,197	
	Direct GHG emissions(Scope 1)		5,173	5,863	5,344	
	Indirect GHG emissions(Scope 2)		13,320	13,753	13,853	
	GHG emissions intensity[4]	tCO_2eq/ KRW 100 million	4.0	5.2	12.3	
SK multi utility	Total GHG emissions(Scope 1, 2)	tCO_2eq	346,243	334,853	357,949	
	Direct GHG emissions(Scope 1)		304,712	302,460	326,443	
	Indirect GHG emissions(Scope 2)		41,531	32,393	31,506	
	GHG emissions intensity[4]	tCO_2eq/ KRW 100 million	248.7	246.6	282.8	
SK chemicals Yantai Co., Ltd.	Total GHG emissions(Scope 1, 2)	tCO_2eq	3,294	15,491	20,774	
	Direct GHG emissions(Scope 1)		1,965	2,663	5,896	
	Indirect GHG emissions(Scope 2)		1,329	12,828	14,877	
Shuye-SK chemicals(Shantou)Co., Ltd.	Total GHG emissions(Scope 1, 2)	tCO_2eq	-	-	30,998	
	Direct GHG emissions(Scope 1)		-	-	23,229	
	Indirect GHG emissions(Scope 2)		-	-	7,769	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Shanghai Co., Ltd.	Total GHG emissions(Scope 1, 2)	tCO_2eq	-	43	39	
	Direct GHG emissions(Scope 1)		-	35	32	
	Indirect GHG emissions(Scope 2)		-	8	7	
SK Chemicals America	Total GHG emissions(Scope 1, 2)	tCO_2eq	-	12	12	
	Direct GHG emissions(Scope 1)		-	7	7	
	Indirect GHG emissions(Scope 2)		-	5	4	
SK Chemicals GmbH	Total GHG emissions(Scope 1, 2)	tCO_2eq	-	36	34	
	Direct GHG emissions(Scope 1)		-	33	31	
	Indirect GHG emissions(Scope 2)		-	3	3	
SK Chemicals Malaysia	Total GHG emissions(Scope 1, 2)	tCO_2eq	-	10	10	
	Direct GHG emissions(Scope 1)		-	6	5	
	Indirect GHG emissions(Scope 2)		-	4	5	
SK chemicals Japan Branch	Total GHG emissions(Scope 1, 2)	tCO_2eq	-	7	7	
	Direct GHG emissions(Scope 1)		-	2	2	
	Indirect GHG emissions(Scope 2)		-	5	5	
SK chemicals Daejeong	Total GHG emissions(Scope 1, 2)	tCO_2eq	-	502	462	
	Direct GHG emissions(Scope 1)		-	-	-	
	Indirect GHG emissions(Scope 2)		-	502	462	

1) Some data may differ slightly from previous year figures due to differences in decimal rounding and truncation methods
2) Based on GHG Protocol 'Financial Control' criteria(excluding duplicate emissions between subsidiaries)
3) SK chemical's(separate) greenhouse gas emissions data for 2022 and 2023 have been corrected from previous disclosures due to calculation standard adjustments(separation of subsidiary data)
4) GHG emissions intensity is calculated based on consolidated revenue for company-wide totals, and based on separate revenue for SK chemical(separate), SK bioscience, and SK multi utility

NON-FINANCIAL DISCLOSURE

Environment | Greenhouse Gas

GHG Reductions[1)]

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Total GHG reductions	tCO_2eq	5,812	15,433	23,977	
	Using CHDM Off gas		309	794	1,040	
	Improving DMT process		5,499	10,997	10,997	
	DMT boiler hydrogen mixing		-	3,016	9,122	
	Renewable energy use		4	625	2,818	
Shuye-SK chemicals(Shantou)Co., Ltd.	Total GHG reductions	tCO_2eq	-	-	813	
	Renewable energy use		-	-	813	

1) Greenhouse gas reduction performance data has been corrected from previous year disclosures due to changes in calculation standards

GHG Emissions from ODS[1)] Substitutes

Business Site	Category	Unit	2022	2023	2024	Remarks
SK multi utility	SF6 gas used for filling electrical equipment	tCO_2eq	151	471	628	
SK chemicals Yantai Co., Ltd.	HFCs used as refrigerants in refrigeration and air-conditioning systems		-	-	-	
Shuye-SK chemicals(Shantou)Co., Ltd.	HFCs used for filling refrigeration, air-conditioning, and fire protection equipment		-	-	540	

1) ODS: Ozone Depleting Substance

NON-FINANCIAL DISCLOSURE

Environment | Greenhouse Gas

GHG Emissions(Scope 3)

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals	Total GHG emissions(Scope 3)		tCO_2eq	1,089,040	1,007,943	1,320,559	
	Upstream	Category 1. Purchased goods and services		220,997	246,771	412,683	
		Category 2. Capital goods		38,543	544	866	
		Category 3. Fuel and energy-related activities (not included in Scope 1 or 2)		9,381	41,382	49,988	
		Category 4. Upstream transportation and distribution		4,732	14,999	25,292	
		Category 5. Waste generated in operations		4,403	7,393	6,525	
		Category 6. Business travel		880	1,021	804	
		Category 7. Employee commuting		1,468	1,295	1,339	
	Downstream	Category 10. Processing of sold products		61,774	73,541	89,518	
		Categry 12. End-of life treatment of sold products		514,718	380,224	470,097	
		Categry 15. Investments[1)]		232,144	240,775	263,448	
SK bioscience[2)]	Total GHG emissions(Scope 3)		tCO_2eq	-	21,766	32,902	
	Upstream	Category 1. Purchased goods and services		-	7,086	19,488	
		Category 2. Capital goods		-	142	401	
		Category 3. Fuel and energy-related activities (not included in Scope 1 or 2)		-	8	7	
		Category 4. Upstream transportation and distribution		-	1,300	1,574	
		Category 5. Waste generated in operations		-	698	656	
		Category 6. Business travel		-	573	794	
		Category 7. Employee commuting		-	997	1,012	
	Downstream	Category 9. Downstream transportation and distribution		-	1,002	1,198	
		Category 10. Processing of sold products		-	0	0	
		Category 11. Use of sold products		-	2,436	14	
		Categry 12. End-of life treatment of sold products		-	7,524	7,758	
		Categry 15. Investments		-	0	0	

Business Site	Category		Unit	2022	2023	2024	Remarks
SK multi utility	Total GHG emissions(Scope 3)		tCO_2eq	-	208,915	133,539	
	Upstream	Category 1. Purchased goods and services		-	15,655	4,384	
		Category 2. Capital goods		-	61	10	
		Category 3. Fuel and energy-related activities (not included in Scope 1 or 2)		-	178,409	112,426	
		Category 4. Upstream transportation and distribution		-	57	55	
		Category 5. Waste generated in operations		-	508	635	
		Category 6. Business travel		-	110	72	
		Category 7. Employee commuting		-	126	136	
	Downstream	Category 9. Downstream transportation and distribution		-	6	-	
		Category 10. Processing of sold products		-	81	-	
		Category 12. End-of life treatment of sold products		-	13,902	15,821	
		Category 15. Investments		-	-	-	

NON-FINANCIAL DISCLOSURE

Environment | Water Resources

Water and Wastewater[1)]

Business Site	Category	Unit	2022	2023	2024	Remarks
Total	Total water use (Water withdrawal + Reuse and Recycling)	ton	139,776,606	130,506,946	137,296,214	
	Water withdrawal		4,676,898	3,943,300	5,063,642	
	Tap water and industrial water		4,672,081	3,937,492	5,058,223	
	Groundwater		4,817	5,808	5,419	
	Reuse and recycling[1)]		135,099,708	126,563,646	132,232,572	
	Water recycling rate	%	96.7	97.0	96.3	
	Water discharge	ton	1,348,801	1,216,139	1,328,324	
	Water withdrawal intensity	ton/KRW	256	225	292	
SK chemicals Headqaurter(ECOLab)	Total water use (Water withdrawal + Reuse and Recycling)	ton	95,680	87,312	105,603	
	Water withdrawal		70,728	66,735	81,791	
	Tap water and industrial water		66,510	61,668	77,159	
	Groundwater		4,218	5,067	4,632	
	Reuse and recycling[1)]		24,952	20,577	23,812	
	Water recycling rate	%	26.1	23.6	22.5	
	Water discharge	ton	32,614	33,592	40,313	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Ulsan Plant)[2)]	Total water use (Water withdrawal + Reuse and Recycling)	ton	139,425,061	130,137,267	136,651,509	Including SK multi utility
	Water withdrawal		4,390,629	3,634,011	4,482,837	
	Tap water and industrial water		4,390,629	3,634,011	4,482,837	
	Groundwater		0	0	0	
	Reuse and recycling[1)]		135,034,432	126,503,257	132,168,672	
	Water recycling rate	%	96.9	97.2	96.7	
	Water discharge	ton	496,160	399,576	410,358	
SK chemicals (Cheongju Plant)	Total water use (Water withdrawal + Reuse and Recycling)	ton	48,681	48,949	54,723	
	Water withdrawal		48,681	48,949	54,723	
	Tap water and industrial water		48,681	48,949	54,723	
	Groundwater		0	0	0	
	Reuse and recycling[1)]		0	0	0	
	Water recycling rate	%	0	0	0	
	Water discharge	ton	27,714	29,022	31,373	

1) Water reuse and recycling volume is calculated by combining reused and recycled water generated from power and production processes
2) SK chemical's separate basis water discharge volume has been corrected from previous year disclosures due to changes in calculation methods and standards

NON-FINANCIAL DISCLOSURE

Environment | Water Resources

Water and Wastewater

Business Site	Category	Unit	2022	2023	2024	Remarks
SK bioscience[2]	Total water use (Water withdrawal + Reuse and Recycling)	ton	207,184	233,417	222,294	
	Water withdrawal		166,860	193,605	182,205	
	Tap water and industrial water		166,261	192,864	181,417	
	Groundwater		599	741	787	
	Reuse and recycling[1]		40,324	39,812	40,089	
	Water recycling rate	%	19.5	17.1	18.0	
	Water discharge	ton	107,935	130,266	107,870	
	Water withdrawal intensity	ton/KRW 100 million	37	52	117	
SK multi utility	Total water use (Water withdrawal + Reuse and Recycling)	ton	0	0	0	
	Water withdrawal		0	0	0	
	Tap water and industrial water		0	0	0	
	Groundwater		0	0	0	
	Reuse and recycling[1]		0	0	0	
	Water recycling rate	%	0	0	0	
	Water discharge	ton	684,378	623,683	683,918	
	Water withdrawal intensity	ton/KRW 100 million	0	0	0	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Yantai Co., Ltd.	Total water use (Water withdrawal + Reuse and Recycling)	ton	0	0	65,162	
	Water withdrawal		0	0	65,162	
	Tap water and industrial water		0	0	65,162	
	Groundwater		0	0	0	
	Reuse and recycling[1]		0	0	0	
	Water recycling rate	%	0	0	0	
	Water discharge	ton	0	0	45,832	
Shuye-SK chemicals(Shan-tou)Co., Ltd	Total water use (Water withdrawal + Reuse and Recycling)	ton	0	0	196,925	
	Water withdrawal		0	0	196,925	
	Tap water and industrial water		0	0	196,925	
	Groundwater		0	0	0	
	Reuse and recycling[1]		0	0	0	
	Water recycling rate	%	0	0	0	
	Water discharge	ton	0	0	8,660	

1) Water reuse and recycling volume is calculated by combining reused and recycled water generated from power and production processes
2) SK bioscience's 2022 and 2023 data has been corrected from previous year disclosures due to expansion of calculation scope

NON-FINANCIAL DISCLOSURE

Environment | Water Resources

Water Pollutant Emissions

Business Site	Category	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	BOD	ton	23.0	14.1	18.1	
	COD		30.2	20.9	42.9	
	SS		9.7	8.6	11.7	
	TOC		32.7	18.3	22.8	
SK chemicals(Only)[1]	BOD	ton	1.4	1.0	3.3	
	COD		8.7	5.9	12.6	
	SS		2.2	1.8	2.5	
	TOC		5.7	3.8	7.5	
SK bioscience[2]	BOD	ton	20.1	12.1	10.7	
	COD		10.4	7.1	6.9	
	SS		6.0	5.0	3.9	
	TOC		15.7	9.4	3.8	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK multi utility[3]	BOD	ton	1.4	1.0	1.7	
	COD		11.1	7.9	16.6	
	SS		1.5	1.7	2.4	
	TOC		11.3	5.1	10.0	
SK chemicals Yantai Co., Ltd.	BOD	ton	-	-	2.3	
	COD		-	-	6.5	
	SS		-	-	2.4	
	TOC		-	-	1.5	
Shuye-SK chemicals(Shantou)Co., Ltd.	BOD	ton	-	-	0.08	
	COD		-	-	0.31	
	SS		-	-	0.53	
	TOC		-	-	0.08	

1) SK chemical's(separate) 2022 and 2023 data has been corrected from previous year disclosures due to data errors
2) COD measurement is managed according to separate inflow approval standards established by Andong City
3) SK multi utility data has been changed and corrected from previous year disclosures due to establishment of water pollutant management standards

NON-FINANCIAL DISCLOSURE

Environment | Water Resources

Water Pollutant Emissions Concentration

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Headquarter(ECO Lab)	BOD	ppm	5.7	8.5	56.7	
	COD		7.1	11.1	48.6	
	SS		5.7	4.8	8.5	
	TOC		13.9	22.7	29.0	
SK chemicals Ulsan Plant	BOD	ppm	2.1	1.6	2.5	
	COD		16.3	12.6	24.3	
	SS		2.3	2.8	3.4	
	TOC[1]		10.6	8.2	14.6	
SK chemicals Cheongju Plant	BOD	ppm	11.5	6.8	2.8	
	COD		16.0	26.3	29.0	
	SS		49.7	28.6	28.6	
	TOC		16.0	13.6	14.5	
SK bioscience(Andong Plant)	BOD	ppm	201.4	99.4	104.5	
	COD		104.1	58.2	66.5	
	SS		59.8	41.4	37.5	
	TOC		-	-	-	Data not managed
SK multi utility(Ulsan Plant)	BOD	ppm	2.1	1.6	2.5	
	COD		16.3	12.6	24.3	
	SS		2.3	0.8	3.4	
	TOC		10.6	8.2	14.6	
SK chemicals Yantai Co., Ltd.	BOD	ppm	-	-	50	
	COD		-	-	141.9	
	SS		-	-	51.7	
	TOC		-	-	31.8	
Shuye-SK chemicals(Shantou)Co., Ltd.	BOD	ppm	-	-	9	
	COD		-	-	36	
	SS		-	-	61	
	TOC		-	-	9	

1) Previous year disclosure has been corrected due to erroneous 2022 toc emission concentration data

Water Resources Risk Management

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Number of violations related to water quality permits, standards, and regulations	Cases	0	0	0	

NON-FINANCIAL DISCLOSURE

Environment | Resource Use and Waste Management

Raw Material and Recycled Material Usage

Business Site	Category	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	Total raw material use	ton	546,940	492,417	603,520	
	Non-renewable raw material use		470,211	422,513	519,807	
	Renewable material use		76,729	69,903	83,712	
	Proportion of renewable material use	%	14.0	14.2	13.9	
SK chemicals(Only)	Total raw material use	ton	350,044	298,591	356,582	
	Non-renewable raw material use		339,318	292,940	342,445	
	Renewable material use		10,726	5,651	14,137	
	Proportion of renewable material use	%	3.1	1.9	4.0	
SK bioscience	Total raw material use	ton	292	193	249	
	Non-renewable raw material use		292	193	249	
	Renewable material use		0	0	0	
	Proportion of renewable material use	%	0	0	0	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK multi utility[1]	Total raw material use	ton	194,807	192,507	197,390	
	Non-renewable raw material use		128,803	128,254	136,829	
	Renewable material use		66,004	64,253	60,561	
	Proportion of renewable material use	%	34	33	31	
SK chemicals Yantai Co., Ltd.	Total raw material use	ton	-	-	8,553	
	Non-renewable raw material use		-	-	8,553	
	Renewable material use		-	-	0	
	Proportion of renewable material use	%	-	-	0	
Shuye-SK chemicals(Shantou)Co., Ltd.	Total raw material use	ton	-	-	39,530	
	Non-renewable raw material use		-	-	30,516	
	Renewable material use		-	-	9,014	
	Proportion of renewable material use	%	-	-	23	

1) SK multi utility's 2022 and 2023 total raw material usage data has been corrected from previous year disclosures due to data errors

NON-FINANCIAL DISCLOSURE

Environment | Resource Use and Waste Management

Waste Generation and Recycling

Business Site	Category	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	Total waste generation (general + designated)	ton	37,488	34,445	37,873	
	Amount of general waste generated		25,385	24,485	27,388	
	Recycled and reused		23,747	23,341	25,746	
	Landfilled		1,282	821	644	
	Incinerated with energy recovery		187	168	183	
	Incinerated without energy recovery		169	155	132	
	Other		0	0	0	
	Unclassified[1]		0	0	682	
	Amount of designated waste		12,103	9,959	10,485	
	Recycled and reused		9,211	6,304	7,272	
	Landfilled		513	11	24	
	Incinerated with energy recovery		1,068	1,848	1,811	
	Incinerated without energy recovery		1,307	1,795	914	
	Other		4	1	1	
	Unclassified[1]		0	0	463	
	Waste generation intensity	ton/KRW 100 million	2.0	2.0	2.2	
	Waste recycling volume	ton	32,958	29,645	33,019	
	Waste recycling rate	%	88	86	87	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)[2]	Total waste generation (general + designated)	ton	17,316	14,148	14,382	
	Amount of general waste generated		5,289	4,271	4,445	
	Recycled and reused		4,235	3,636	3,750	
	Landfilled		882	480	563	
	Incinerated with energy recovery		4	0	0	
	Incinerated without energy recovery		169	155	132	
	Other		0	0	0	
	Amount of designated waste generated		12,027	9,877	9,937	
	Recycled and reused		9,204	6,299	7,267	
	Landfilled		513	11	24	
	Incinerated with energy recovery		1,068	1,848	1,811	
	Incinerated without energy recovery		1,238	1,719	836	
	Other		4	0	0	
	Recycling rate	%	77	64	73	
	Waste generation intensity	ton/KRW 100 million	1.4	1.1	1.1	
	Waste recycling volume	ton	13,438	9,935	11,016	
	Waste recycling rate	%	78	70	77	

1) For overseas production and sales subsidiaries(Yantai, Shantou), data collection systems by waste treatment method(landfilled, recycled, incinerated, etc.) are currently under development, so waste from these Business Sites is aggregated under the 'unclassified' category
2) SK chemical's(separate) 2023 data has been corrected from previous year disclosures due to some data errors

NON-FINANCIAL DISCLOSURE

Environment | Resource Use and Waste Management

Waste Generation and Recycling

Business Site	Category	Unit	2022	2023	2024	Remarks
SK bioscience[1]	Total waste generation (general + designated)	ton	442	423	432	
	Amount of general waste generated		366	341	348	
	Recycled and reused		183	173	165	
	Landfilled		0	0	0	
	Incinerated with energy recovery		183	168	183	
	Incinerated without energy recovery		0	0	0	
	Other		0	0	0	
	Amount of designated waste generated		76	82	85	
	Recycled and reused		7	5	6	
	Landfilled		0	0	0	
	Incinerated with energy recovery		0	0	0	
	Incinerated without energy recovery		69	76	78	
	Other		0	1	1	
	Waste generation intensity	ton/KRW 100 million	0.1	0.1	0.3	
	Waste recycling volume	ton	190	177	170	
	Waste recycling rate	%	43	42	39	

1) SK bioscience's previous year disclosures have been corrected due to expanded disclosure scope for 2022 data and some data errors in 2023

Business Site	Category	Unit	2022	2023	2024	Remarks
SK multi utility	Total waste generation (general + designated)	ton	19,730	19,873	21,913	
	Amount of general waste generated		19,730	19,873	21,913	
	Recycled and reused		19,330	19,532	21,832	
	Landfilled		400	341	81	
	Incinerated with energy recovery		0	0	0	
	Incinerated without energy recovery		0	0	0	
	Other		0	0	0	
	Amount of designated waste generated		0	0	0	
	Recycled and reused		0	0	0	
	Landfilled		0	0	0	
	Incinerated with energy recovery		0	0	0	
	Incinerated without energy recovery		0	0	0	
	Other		0	0	0	
	Waste generation intensity	ton/KRW 100 million	14.2	14.6	17.3	
	Waste recycling volume	ton	19,330	19,532	21,832	
	Waste recycling rate	%	98	98	100	
SK chemicals Yantai Co., Ltd.	Total waste generation (general + designated)	ton	-	-	504	
	Amount of general waste generated		-	-	133	
	Amount of designated waste generated		-	-	371	
	Waste recycling volume		-	-	0	
	Waste recycling rate	%	-	-	0	
Shuye-SK chemicals(Shantou)Co., Ltd.	Total waste generation (general + designated)	ton	-	-	642	
	Amount of general waste generated		-	-	549	
	Amount of designated waste generated		-	-	93	
	Waste recycling volume		-	-	0	
	Waste recycling rate	%	-	-	0	

NON-FINANCIAL DISCLOSURE

Environment | Air Pollutant Emissions

Air Pollutant Emissions[1)]

Business Site	Category	Unit	2022	2023	2024	Remarks
Total(Including subsidiaries)	Total dust emissions	ton	9.3	8.8	9.6	
	Total sulfur oxide(SOx) emissions		171.2	142.6	88.8	
	Total nitrogen oxide(NOx) emissions		266.3	209.1	175.9	
	Total volatile organic compounds(VOCs) emissions		6.9	4.2	7.3	
SK chemicals(Only)	Total dust emissions	ton	2.7	3.3	1.9	
	Total sulfur oxide(SOx) emissions		2.6	0.1	2.6	
	Total nitrogen oxide(NOx) emissions		66.0	35.0	30.9	
	Total volatile organic compounds(VOCs) emissions		6.9	4.2	6.7	
	Total hazardous air pollutants(HAPs) emissions		-	0.0	0.0	
SK bioscience(Andong Plant)	Total dust emissions	ton	0.06	0.06	0.06	
	Total sulfur oxide(SOx) emissions		0.0	0.0	0.0	
	Total nitrogen oxide(NOx) emissions		8.3	9.5	8.5	
	Total volatile organic compounds(VOCs) emissions		0.0	0.0	0.0	
SK multi utility(Ulsan Plant)	Total dust emissions	ton	6.5	5.5	6.2	
	Total sulfur oxide(SOx) emissions		168.6	142.6	80.4	
	Total nitrogen oxide(NOx) emissions		191.9	164.6	133.4	
	Total volatile organic compounds(VOCs) emissions		0.0	0.0	0.0	
	Total lead(Pb) emissions		-	-	0.0	
	Total mercury(Hg) emissions		-	-	0.0	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Yantai Co., Ltd.	Total dust emissions	ton	-	-	0.3	
	Total sulfur oxide(SOx) emissions		-	-	0.1	
	Total nitrogen oxide(NOx) emissions		-	-	3.0	
	Total volatile organic compounds(VOCs) emissions		-	-	0.5	
Shuye-SK chemicals(Shantou)Co., Ltd.	Total dust emissions	ton	-	-	1.3	
	Total sulfur oxide(SOx) emissions		-	-	5.8	
	Total nitrogen oxide(NOx) emissions		-	-	0.1	
	Total volatile organic compounds(VOCs) emissions		-	-	0.1	

1) Total dust emissions and emission volume raw unit data for 2022 have been corrected from previous year disclosures due to calculation errors

NON-FINANCIAL DISCLOSURE

Environment | Air Pollutant Emissions

Air Pollutant Emission Concentrations

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals Headquarter(ECOLab)	Dust	mg/Sm^3	7.9	2.3	1.0	
	Sulfur oxide(SOx)	ppm	2.5	0.0	1.5	
	Nitrogen oxide(NOx)		30.3	30.3	29.6	
	Volatile organic compounds(VOCs)		0.0	0.0	0.0	
SK chemicals Ulsan Plant	Dust	mg/Sm^3	2.6	3.3	2.2	
	Sulfur oxide(SOx)	ppm	2.8	0.2	0.4	
	Nitrogen oxide(NOx)		40.0	29.1	25.2	
	Volatile organic compounds(VOCs)		0.2	0.2	0.1	
SK chemicals Cheongju Plant	Dust	mg/Sm^3	2.1	2.9	1.8	
	Sulfur oxide(SOx)	ppm	0	0	0	
	Nitrogen oxide(NOx)		23.7	24.4	20.8	
	Volatile organic compounds(VOCs)		73.4	43.7	53.2	
SK bioscience(Andong Plant)	Dust	mg/Sm^3	4.0	0.6	0.6	
	Sulfur oxide(SOx)	ppm	1.7	0.0	0.0	
	Nitrogen oxide(NOx)		38.0	35.0	40.7	
	Volatile organic compounds(VOCs)		0.0	0.0	0.0	

Business Site	Category	Unit	2022	2023	2024	Remarks
SK multi utility(Ulsan Plant)	Dust	mg/Sm^3	2.8	2.2	2.3	
	Sulfur oxide(SOx)	ppm	18.6	14.0	7.5	
	Nitrogen oxide(NOx)		37.2	29.7	24.5	
	Volatile organic compounds(VOCs)		0	0	0	
SK chemicals Yantai Co., Ltd.	Dust	mg/Sm^3	-	-	-	
	Sulfur oxide(SOx)	ppm	-	-	-	
	Nitrogen oxide(NOx)		-	-	-	
	Volatile organic compounds(VOCs)		-	-	141.9	
Shuye-SK chemicals(Shantou)Co., Ltd.	Dust	mg/Sm^3	-	-	8.7	
	Sulfur oxide(SOx)	ppm	-	-	39.7	
	Nitrogen oxide(NOx)		-	-	133.1	
	Volatile organic compounds(VOCs)		-	-	11.1	

NON-FINANCIAL DISCLOSURE

Society | Community

Social Value

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Indirect economic contribution performance[1]	Total	KRW 100 million	3,074	2,804	2,803	
		Employment		2,339	2,504	2,426	
		Dividend		289	126	222	
		Tax		446	174	155	
	Environmental performance	Total		215	75	253	
		Product/services		531	401	608	
		Environment(process)		-316	-326	-355	
	Social performance	Total		585	707	672	
		Quality of life		434	549	489	
		Labor standard		38	63	86	
		Growth		17	18	12	
		Social contribution		96	77	85	

1) Previous year disclosures have been corrected due to changes in tax calculation methods

Social Contribution Investments and Support

Business Site	Category		Unit	2022	2023	2024	Remarks
Total (Including subsidiaries)	Social contribution activity cost		KRW 100 million	70.1	54.4	57.2	
SK chemicals(Only)	Social contribution activity cost		KRW 100 million	18.5	19.4	17.2	
	Volunteering activity participation[1]	Participants Persons	Persons	510	614	633	
		Volunteering hours per person Hours	Hours	5.3	5.4	4.5	
	Number of happy green school environmental education sessions Persons		Persons	4,586	4,414	4,496	
	Hope maker enrolment		%	70	70	54	
SK bioscience	Social contribution activity cost		KRW 100 million	51.6	35.0	40.0	

1) Data for 2022 and 2023 has been recalculated based on SK chemicals separate standards and disclosure items corrected

NON-FINANCIAL DISCLOSURE

Society | Health/Safety

General Health/Safety

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Process safety incident count(PSIC)[1]	Cases	0	1	3	
	Total process safety incident rate(PSTIR)[1]	%	0	0.06	0.17	
	Process safety incident severity rate(PSISR)[1]		0	0.59	0.56	
	Number of transportation accidents	Cases	0	0	0	

1) Data for 2022 and 2023 have been corrected from previous year disclosures due to changes in process safety incident indicator aggregation methods

Occupational Disease

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Work-related illness cases	Cases	0	0	0	
SK bioscience	Work-related illness cases		0	0	0	
SK multi utility	Work-related illness cases		0	0	0	

Industrial Accidents

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Total industrial accident rate	%	0.11	0	0.06	
	Total number of serious accidents	Cases	0	0	0	
SK chemicals(Only)_Suppliers	Total industrial accident rate	%	0.26	0	0.32	
	Total number of serious accidents	Cases	0	0	0	
SK bioscience	Total industrial accident rate	%	0	0	0.10	
	Total number of serious accidents	Cases	0	0	0	
SK multi utility	Total industrial accident rate	%	0	0	1.05	
	Total number of serious accidents	Cases	0	0	0	

Industrial Accidents

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Number of deaths(persons)	Persons	0	0	0	
	Total number of accidents[1]	Cases	9	6	12	
	Lost Time Injury Rate(LTIR)	Cases per 200,000 working hours	0.12	0	0.06	
SK chemicals(Only)_Suppliers	Number of deaths(persons)	Persons	0	0	0	
	Total number of accidents	Cases	1	1	3	
	Lost Time Injury Rate(LTIR)	Cases per 200,000 working hours	0.27	0	0.31	
SK bioscience	Number of deaths(persons)	Persons	0	0	0	
	Total number of accidents[1]	Cases	0	0	1	
	Lost Time Injury Rate(LTIR)	Cases per 200,000 working hours	0	0	0.09	
SK multi utility	Number of deaths(persons)	Persons	0	0	0	
	Total number of accidents	Cases	0	0	1	
	Lost Time Injury Rate(LTIR)	Cases per 200,000 working hours	0	0	0	

1) Previous year report disclosures have been corrected due to 2023 data errors

NON-FINANCIAL DISCLOSURE

Society | Labor Status

Employee Composition

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Workforce composition						
	Total		Persons	1,425	1,418	1,466	
	Gender	Male		1,112	1,087	1,118	
		Female		313	331	348	
	Employment type[1]	Permanent		1,337	1,325	1,363	
		Contract		88	93	103	
	Age	Under 30		183	189	218	
		30 to 49		1,002	1,017	1,021	
		50 and above		240	212	227	
	Diversity	Disabled		43	50	50	
		Veterans		26	25	22	
		Foreigners		1	1	1	
	Hiring						
	Total newly hired		Persons	197	143	167	
	Gender	Male		125	82	107	
		Female		72	61	60	
	Age	Under 30		73	74	98	
		30 to 49		111	63	64	
		50 and above		13	6	5	
	Position	Executives		4	1	0	
		Managers(PL, team leaders, commissioners)		1	6	3	
		Non-managers		192	136	164	
	Percentage of open position filled by internal candidates		%	1	2	3	

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Turnover(retire)						
	Employee turnover		Persons	160	130	143	
	Gender	Male		110	91	95	
		Female		50	39	48	
	Age	Under 30		33	35	34	
		30 to 49		79	59	82	
		50 and above		48	36	27	
	Position	Executives		3	2	7	
		Managers(PL, team leaders, commissioners)		5	3	7	
		Non-managers		152	125	129	
	Turnover rate	Total	%	11	9	10	
		Voluntary[2]	%	10.3	7.7	8.0	

1) 2022 and 2023 regular and non-regular employee data have been corrected from previous year disclosures due to calculation standard adjustments
2) Based on voluntary turnover rate(= voluntary resignations / total employees)

NON-FINANCIAL DISCLOSURE

Society | Labor Status

Employee Composition

Business Site	Category		Unit	2022	2023	2024	Remarks
SK bioscience	Workforce composition						
	Total		Person	1,079	1,101	1,028	
	Gender	Male		660	669	615	
		Female		419	432	413	
	Employment type	Permanent		900	971	929	
		Contract		179	130	99	
	Age	Under 30		464	349	249	
		30 to 49		565	697	731	
		50 and above		50	55	48	
	Diversity	Disabled		36	36	34	
		Veterans		1	1	1	
	Hiring						
	Total newly hired		Person	249	158	79	
	Gender	Male		130	103	47	
		Female		119	55	32	
	Age	Under 30		80	46	28	
		30 to 49		158	110	45	
		50 and above		11	2	6	
SK multi utility	Workforce composition						
	Total		Person	81	89	97	
	Gender	Male		78	86	92	
		Female		3	3	5	
	Employment type	Permanent		70	76	78	
		Contract		11	13	19	
	Age	Under 30		8	10	11	
		30 to 49		41	44	51	
		50 and above		32	35	35	

Business Site	Category		Unit	2022	2023	2024	Remarks
SK multi utility	Diversity	Disabled	Person	1	1	1	
		Veterans		0	0	0	
	Hiring						
	Total newly hired		Person	13	12	17	
	Gender	Male		13	11	15	
		Female		0	1	2	
	Age	Under 30		4	7	4	
		30 to 49		8	4	8	
		50 and above		1	1	5	
	Position	Executives		0	0	0	
		Managers(PL, team leaders, commissioners)		0	0	1	
		Non-mangers		13	12	16	
	Percentage of open position filled by internal candidates		%	0	8	6	
	Turnover(retire)						
	Employee turnover		Person	2	5	10	
	Gender	Male		2	4	9	
		Female		0	1	1	
	Age	Under 30		0	2	2	
		30 to 49		2	2	4	
		50 and above		0	1	4	
	Position	Executives		0	0	0	
		Managers(PL, team leaders, commissioners)		0	0	1	
		Non-mangers		2	5	9	
	Turnover rate	Total	%	2.5	5.6	10.3	
		Voluntary[1)]		2.5	4.5	6.2	

1) Correction of previous year disclosures for 2023 data

NON-FINANCIAL DISCLOSURE

Society | Labor Status

Female Talent

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Executives	Number of female executives	Person	1	2	2	
		Proportion of female executives	%	4	6	6	
	Managers (PL, team leaders, commissioners)	Number of female executives	Person	13	15	17	
		Proportion of female executives	%	10	11	11	
	Non-mangers	Number of female executives[1]	Person	299	314	329	
		Proportion of female executives	%	24	25	26	
	STEM members(Members of R&D department)	Number of female executives	Person	72	78	89	
		Proportion of female executives	%	49	54	55	
	Managers in revenue generating departments (Marketing department PL, team leaders, commissioners)	Number of female executives	Person	19	25	31	
		Proportion of female executives	%	6	7	8	
SK bioscience	Executives	Number of female executives	Person	8	7	6	
		Proportion of female executives	%	21	18	16	
	Managers (PL, team leaders, commissioners)	Number of female executives[2]	Person	19	17	20	
		Proportion of female executives[2]	%	22	18	24	
	Non-mangers	Number of female executives[2]	Person	392	408	387	
		Proportion of female executives[2]	%	42	44	43	
	STEM members	Number of female executives	Person	12	10	12	
		Proportion of female executives	%	32	31	32	
	Managers in revenue generating departments (Marketing department PL, team leaders, commissioners)	Number of female executives	Person	27	20	14	
		Proportion of female executives	%	39	28	20	

Business Site	Category		Unit	2022	2023	2024	Remarks
SK multi utility	Executives	Number of female executives	Person	0	0	0	
		Proportion of female executives	%	0	0	0	
	Managers(PL, team leaders, commissioners)	Number of female executives	Person	0	0	0	
		Proportion of female executives	%	0	0	0	
	Non-mangers	Number of female executives	Person	3	0	5	
		Proportion of female executives	%	4	0	6	
	STEM members	Number of female executives	Person	0	0	0	
		Proportion of female executives	%	0	0	0	
	Managers in revenue generating departments (Marketing department PL, team leaders, commissioners)	Number of female executives	Person	1	1	0	
		Proportion of female executives	%	2	2	0	

1) Previous year disclosures have been corrected due to errors in 2022 female junior manager count
2) 2022 and 2023 disclosures have been corrected due to previous year consolidation scope errors

NON-FINANCIAL DISCLOSURE

Society | Welfare Benefits

Parental Leave

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Number of childcare leave users	Male	Persons	12	8	16	
		Female		25	25	26	
		Total		37	33	42	
	Number of returnees after childcare leave	Male		7	6	10	
		Female		14	16	13	
		Total		21	22	23	
	Number of returnees who have worked for more than 12 months	Male		6	3	7	
		Female		8	4	15	
		Total		14	7	22	
	Percentage of returnees who have worked for more than 12 months	Male	%	86	50	70	
		Female		57	25	115	
		Total		67	32	96	

Pay ratio by Gender[1)]

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Gender pay ratio (Basic salary)	Executives	%	13	75	85	
		Managers		103	90	99	
		Non-managers		79	75	78	
		Total		69	70	71	
SK bioscience	Gender pay ratio (Basic salary)	Executives		110	99	107	
		Managers		99	103	101	
		Non-managers		100	102	102	
		Total		90	88	89	
SK multi utility	Gender pay ratio (Basic salary)	Executives		-	-	-	
		Managers		-	-	-	
		Non-managers		43	48	56	
		Total		43	48	54	

1) Female average basic salary ratio compared to male average basic salary

Retirement Pension

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Retirement pension operation amount(DB, Defined Benefit (DB) Plan)	KRW 100 million	1,237	1,375	1,520	
	Number of retirement pension subscribers(DB, Defined Benefit (DB) Plan)	Person	1,072	1,283	1,328	
SK bioscience	Retirement pension operation amount(DB, Defined Benefit (DB) Plan)	KRW 100 million	208	396	668	
	Number of retirement pension subscribers(DB, Defined Benefit (DB) Plan)	Person	713	1,072	768	
SK multi utility	Retirement pension operation amount(DB, Defined Benefit (DB) Plan)	KRW 100 million	58	72	83	
	Number of retirement pension subscribers(DB, Defined Benefit (DB) Plan)	Person	77	86	80	

NON-FINANCIAL DISCLOSURE

Society | Education and Evaluation

Training Hours

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Total number of participants	Persons	1,425	1,418	1,466	
	Total education hours	Hours	82,134	108,930	102,041	
	Education hours per person		58	77	70	
SK bioscience	Total education hours		44,283	68,694	63,561	
	Education hours per person		43	70	59	

Training Costs

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Total education costs	KRW million	2,799	3,443	3,272	
	Education costs per person		2.0	2.4	2.2	
SK bioscience[1]	Total education costs		2,167	2,920	2,440	
	Education costs per person		2.0	2.7	2.4	

1) 2022 and 2023 disclosures have been corrected due to changes in calculation standards

Performance Evaluation Review Rate

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Percentage of employees subject to evaluation based on goals agreed with immediate supervisor	%	97	95	97	
	Percentage of employees subject to 360-degree feedback		94	94	97	
	Percentage of employees subject to relative valuation		92	93	92	

Society | Human Rights and Labor

Human Rights Risk Assessment

Business Site	Category		Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Own Business Operations	Total percentage assessed in the last 3 years	%	100	100	100	
		Percentage of sites assessed where risks were identified		17	37.5	43.8	
		Percentage of identified mitigation/remediation action processes applied		100	100	100	
	Contractors and Tier 1 Suppliers	Total percentage assessed in the last 3 years		63	64	100	
		Percentage of sites assessed where risks were identified		2	2.2	1.6	
		Percentage of identified mitigation/remediation action processes applied		38	41	93	

Labor Union Collective Agreement Application Rate

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Application ratio of collective agreement	%	100	100	100	
SK bioscience	Application ratio of collective agreement		100	100	100	
SK multi utility	Application ratio of collective agreement		100	100	100	

Society | Customer Satisfaction

Customer Satisfaction Survey

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals(Only)	Annual customer complaint receipt and processing cases	Cases	83	70	76	
	Customer satisfaction score	Points	84.0	86.4	88.1	

NON-FINANCIAL DISCLOSURE

Governance | Ethical Management

Ethical Management System

Business Site	Category			Unit	2022	2023	2024	Remarks
SK chemicals (Including multi utility)	Official ethics management channel reports	Number of reports		Cases	9	10	7	
		Number of processed			9	10	7	
		Proportion of complaints resolved		%	100	100	100	
	Unfair trade practices and other violations of laws	Number of violations		Cases	0	0	0	
		Number of non-monetary			0	0	0	
		Number of lawsuits(Defeated)			0	0	0	
	Participation rate in ethics training			%	100	100	100	
	Proportion of employees that have signed the Code of Conduct	Employees			100	100	100	
		Business partners			100	100	100	
		Subsidiaries			100	100	100	
		Joint ventures			100	100	100	
	Proportion of business sites that have gone through corruption risk inspections				100	100	100	

Governance | Board of Directors Operation

Operation and Compensation

Category			Unit	2022	2023	2024	Remarks
Board Operation	Number of meetings	Regular BOD meetings	Cases	16	14	14	
	Agenda	Registered agenda		26	14	19	
		Approved agenda		26	14	19	
	Attendance rate	Inside directors	%	100	97	100	
		Non-executive directors		91	100	100	
		Outside directors		100	100	100	
Board Compensation	Inside directors	Total amount paid	KRW million	3,154	2,980	2,180	
		Number	Persons	3	3	3	
		Avg. remuneration per person	KRW million	1,051	993	727	
	Outside directors	Total amount paid		380	417	455	
		Number	Persons	4	4	4	
		Avg. remuneration per person	KRW million	95	104	114	

NON-FINANCIAL DISCLOSURE

Governance | Shareholders and Dividends

Composition of Shareholders and Dividends

Category			Unit	2022	2023	2024	Remarks
Shareholder Composition	Shareholder equity ratio	SK Discovery Co., Ltd.	Number of Shares	7,056,899	7,056,899	7,056,899	
			%	36.4	36.4	36.4	
		Choi Chang-won and other related parties	Number of Shares	382,109	382,109	382,109	
			%	2	2	2	
		Shareholders over 5% (the National Pension Service)	Number of Shares	1,128,319	1,078,744	907,747	
			%	6	6	5	
		Treasury stock	Number of Shares	178,990	178,990	178,990	
			%	1	1	1	
		Minority shareholders	Number of Shares	10,622,895	10,672,470	10,843,467	
			%	55	55	56	
		Total	Number of Shares	19,369,212	19,369,212	19,369,212	
			%	100	100	100	
Dividend Status	Common Stock	Stock dividend per shares	KRW/share	1,500	650	1,150	
		Number of dividend shares	Share	17,222,926	17,222,926	17,222,926	
		Cash dividend yield	%	1.9	1.0	2.8	
	Preferred Stock	Stock dividend per share	KRW/share	1,550	700	1,200	
		Number of dividend shares	share	1,967,296	1,967,296	1,967,296	
		Cash dividend yield	%	3.9	2.3	6.4	

Governance | Information Security

Establishment and Incorporation of Information Security System

Business Site	Category	Unit	2022	2023	2024	Remarks
SK chemicals (Only)	Information security training participation rate cases	%	99	99	100	
	Number of personal information leakage cases points	Cases	0	5[1]	0	
	Total monetary loss due to information security violations	KRW 100 million	0	0.01	0	
	Information security operation and investment amount	KRW 100 million	21	18	18	
	Information security certification rate	%	0	67	67	

1) Number of SK chemicals personal information breach cases included in SK Careers personal information breach incident

APPENDIX

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Stakeholder Engagement

Stakeholder Engagement and Communication Channels

Stakeholder Engagement

SK chemicals Stakeholder Engagement Policy

SK chemicals defines customers, shareholders, investors and financial institutions, employees, governments and associations, suppliers, and local communities as its key stakeholders. In 2020, the company codified the pursuit of stakeholder happiness in its Articles of Incorporation, and in March 2021, solidified its commitment to stakeholder-centered management through the establishment of a Corporate Governance Charter. In 2022, at the General Meeting of Shareholders, SK chemicals announced its financial story focused on transitioning to a green materials business, earning support and consensus from a wide range of stakeholders.

In June 2024, SK chemicals enacted the Stakeholder Engagement Policy to build sustainable relationships and facilitate effective communication with stakeholders. This policy clearly defines the concept of stakeholders and systematizes tailored communication channels for each group. It also establishes a five-step grievance mechanism to proactively respond to stakeholder feedback and complaints. The policy applies to all management activities at domestic business sites and subsidiaries, providing multiple communication channels for all stakeholders, including local communities near business sites, to express concerns about the company's activities. A key principle of this policy is the transparent sharing of solutions to raised issues. Based on the SKMS(SK Management System) philosophy, SK chemicals is committed to implementing this policy faithfully and growing into a company that contributes to socio-economic development and the happiness of humanity through open communication with stakeholders. The Board of Directors, as the company's highest decision-making body, supports the active implementation of this policy and will fulfill its role in overseeing stakeholder engagement and inclusive management.

Stakeholder Engagement Channels

Category	Key Issues	Communication Channels
All stakeholders	• Awareness shift on green materials & eco-friendly consumption • Pharmaceutical & bio business and health information requests • Introduction to SK chemicals and recruitment information • ESG management activities	• stakeholders Survey - Annually • Operation of SK chemicals YouTube Channel – Ongoing
Customers	• Feedback on products and services • Product quality control and safety	• Customer Satisfaction Survey(Green Chemicals Business) - Annually • Customer Service Center Operation(Pharma Business) - Ongoing • Operation of 'Voice of Customer' Channel on SK chemicals Website - Ongoing • Individual Visits to Customer Companies - Ongoing
Shareholders and Investors	• Stock price and dividend changes issues • Changes in management environment, business performance, and strategy • Transparent corporate information disclosure	• Business Reports/Quarterly and Semi-Annual Reports • Timely Disclosure/Voluntary Disclosure • Regular/Extraordinary General Shareholders' Meetings • Quarterly Earnings Announcements and Non-Deal Roadshows - Quarterly • Operation of Contact IR Bulletin Board - Ongoing
Members	• Changes in management environment • Implementation of recruitment and development systems • Fair performance assessment and compensation • Enhancement of welfare benefits	• Town Hall Meetings - Quarterly • G+ / L+ Meetings - Quarterly • Labor-Management Council • In-house Broadcasting and Newsletter • Member Satisfaction Survey / Culture Survey - Annually • Operation of SK Ethical Management Report Channel – Ongoing
Government and Associations	• Regulatory policies • Business opportunities and risks	• Policy-related Consultations with Local Governments - As Needed
Suppliers	• Fair contracts, unfair transactions • Shared growth cooperation	• Support for Establishing ESG Management Systems for Suppliers • SK Group Shared Growth Academy • Individual Visits to Suppliers – Ongoing • Supplier Representatives Meeting – Quarterly • Supplier Safety Managers Meeting - Monthly • Operation of Safety Reporting System - Ongoing
Community	• Community participation and development • Collaborative social contribution activities	• Joint Program Development and Operation in Cooperation with Local Governments • Community Volunteer Group

Stakeholder Engagement

Promoting Local Community Engagement

Local Community Engagement and Communication Channels

To strengthen participation and communication with local communities, SK chemicals operates a variety of channels. In line with the Stakeholder Engagement Policy established in June 2024, the company holds forums and municipal cooperation programs that include participation from community members. These regular engagements allow the company to hear about local issues directly and collaborate on solutions. SK chemicals also maintains continuous communication and provides information through its website, email, phone, and other diverse channels.

The company actively promotes various social contribution programs aimed at the sustainable development of local communities. Through these efforts, SK chemicals seeks to gain a deeper understanding of local challenges and build a foundation for mutual prosperity. Moving forward, the company will diversify its communication channels and enhance the quality of its participation activities to establish strong, trust-based relationships and foster an ecosystem of shared growth with the community.

Community Communication Channels

Category	Communication Channel
Online Webpage	SK chemicals' Webpage -Contact Us - Inquiry
Department Email	esgskchem@sk.com
Telephone	02-2008-2008
Social Contribution	Community Volunteer Group

Local Community Impact Assessment

SK chemicals conducts impact assessments to systematically identify and mitigate any negative effects that its business and management activities may have on local communities. The company analyzes biodiversity risks in areas surrounding its business sites and pursues appropriate mitigation and conservation efforts. Community members are directly involved in human rights impact assessments to continuously monitor and improve potential human rights risks. Additionally, SK chemicals regularly measures the environmental, social, and economic value of its activities in the community and makes multifaceted efforts to create social value that local residents can tangibly experience.

Community Impact Assessment

Category	Environment	Society	Economy
	Biodiversity Impact Assessment	Human Rights Impact Assessment	Social Value Creation Performance Assessment
Impact Assessment Contents	Impact assessments applying global methodologies such as TNFD are conducted to identify biodiversity risks and improvements targeting own Business Sites, adjacent areas, upstream, and downstream.	Human rights impact assessments are conducted by defining groups such as community members and identifying potential risk factors that may negatively affect human rights during business operations for improvement.	Impact assessments are conducted to measure social value regarding economic indirect contributions, environmental performance, and social performance created through business and management activities.
Report Page	74p	93p	162p

Participation in Global Initiatives

UNGC Communication on Progress

Category	Principle	Major Activities	Page
Human Rights	**Principle①** Businesses should support and respect the protection of internationally proclaimed human rights; and **Principle②** make sure that they are not complicit in human rights abuses.	• Make Declaration on Human Rights and Human Rights Management Guidelines • Launch a Human Rights Management Committee • Conduct human rights audits • Comply with labor principles and laws	92
Labour	**Principle③** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining, **Principle④** the elimination of all forms of forced and compulsory labour, **Principle⑤** the effective abolition of child labour, and **Principle⑥** he elimination of discrimination in respect of employment and occupation.	• Comply with the Labor Standards Act • Operate a fair performance management system • Have Labor-Management meetings	97-98
Environment	**Principle⑦** Businesses should support a precautionary approach to environmental challenges, **Principle⑧** undertake initiatives to promote greater environmental responsibility, and **Principle⑨** encourage the development and diffusion of environmentally friendly technologies.	• Establish measures to reduce GHG pathways and 2040 Net Zero Roadmap based on SBTi • Reduce GHG with process optimization, fuel conversion, and solar power generation • Expand business focusing on recycle and bio-based materials	39-45, 57-62
Anti-Corruption	**Principle⑩** Businesses should work against corruption in all its forms, including extortion and bribery.	• Establish ethical management and anti-corruption policies • Organize a dedicated organization for ethical management and establish a reporting/counseling system • Implement ethics management and anti-corruption education • Obtain a compliance management certification(ISO 37001)	125-128

Participation in Global Initiatives

UN SDGs

Category	Target		Activities
1. No poverty	1.3	Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the Vulnerable.	• Employment of vulnerable workers
3. Good health and well-being	3.3	By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.	• Contribute to fighting diseases with the vaccine business
	3.4	Noncommunicable diseases and mental health: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.	• Contribute to treating diseases with the pharmaceutical business • Provide treatment support for incurable disease patients • Develop and support programs to enhance cognitive skills for dementia patients
4. Quality education	4.4	By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.	• Support obtaining degrees and certifications related to job responsibilities • Implement personal information protection and security education • Support safety training and education for employees of the company and business partners • Support enhancing competitiveness through education for business partners
5. Gender equality	5.4	Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	• Implementation of work/family balance system such as childcare leave
6. Clean water and sanitation	6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.	• Investing in water quality pollutant reduction facilities and strengthening pollutant management • Expanding water recycling rate
7. Affordable and clean energy	7.1	By 2030, ensure universal access to affordable, reliable and modern energy services.	• Support the use of energy by distributing cookstoves to Myanmar
	7.2	By 2030, increase substantially the share or renewable energy in the global energy mix.	• Transition to high-energy fuel and increase the share of renewable energy
	7.3	By 2030, double the global rate of improvement in energy efficiency	• Build eco-friendly business sites and operate the sites to enhance energy efficiency
8. Decent work and economic growth	8.5	By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.	• Create high-quality jobs through institutional and policy support • Support for the growth of business partners through financial assistance programs • Welfare support for employees of business partners

Category	Target		Activities
9. Industry, innovation and infrastructure	9.2	Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries.	• Upgrade R&D investment to protect the earth's environment • Upgrade R&D investment to promote people's health
10. Reduced inequalities	10.2	By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	• Alleviate inequalities with human rights protection systems
11. Sustainable cities and communities	11.1	By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.	• Establish the local humanities complex cultural space called 'Jigwanseoga'
12. Responsible consumption and production	12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.	• Make efforts to reuse wastewater and waste that appears from the production process
	12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	• Reducing plastic waste by establishing a PET circular economy closed loop • Expanding waste recycling through business waste management
13. Climate action	13.1	Strengthen resilience and adaptive capacity to climaterelated hazards and natural disasters in all countries.	• Establish a dedicated management organization for climate change risks • Set and implement targets for greenhouse gas reduction and development of bio-materials • Make efforts to reduce greenhouse gas emissions by using waste resources
	13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	• Implement eco-friendly environmental management with PET eco-friendly circular economy and cleaning the environment
14. Life below water	14.2	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.	• Efforts to reduce marine pollution risks by developing eco-friendly plastics • Volunteer activities to clean streams
17. Partnership for the goals	17.16	Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries.	• Support for diagnosing and systematizing the ESG management status of business partners • Establish comprehensive solutions based on diverse infrastructure partnership networks • Promote global partnership activities for sustainable management

Participation in Global Initiatives

UN SDGs

As a member of the UN Global Compact, SK chemicals supports the achievement of the 17 UN Sustainable Development Goals(SDGs). Through business activities aligned with each goal, the company contributes to solving social problems and leading value creation. In 2024, SK chemicals engaged in initiatives linked to 13 of the 17 SDGs, which resulted in an estimated KRW 372.6 billion in social value creation.

(Unit: KRW million)

Participation in Global Initiatives

TCFD

TCFD Recommended Disclosure		Report Page	CDP Link
Governance	a.Describe the board's oversight of climate-related risks and opportunities	30-31	CDP_C4.1.2
	b.Describe management's role in assessing and managing risks and opportunities	30-31	CDP_C4.3
Strategy	a.Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	34-35	CDP_C2.1, C2.2.2, C3.1, C3.1.1, C3.6, C3.6.1
	b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	36-37	CDP_C5.2, C5.3.1, C5.3.2
	c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	46-48	CDP_C5.1, C5.1.1, C5.1.2
Risk Management	a. Describe the organization's processes for identifying and assessing climate-related risks	49	CDP_C2.2.1, C2.2.5
	b. Describe the organization's processes for managing climate-related risks	49	CDP_C2.2.6, C2.2.8
	c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	49	CDP_C2.2.9
Metrics and Targets	a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	51	CDP_C7.52
	b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas(GHG) emissions, and the related risks	51, 150-152	CDP_C7.6, C7.7, C7.8, C7.8.1, C12.1, C12.1.1, C12.1.3
	c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	50-51	CDP_C7.53, C7.53.1, C7.53.2, C7.53.4, C7.54, C7.54.1, C7.54.2

Participation in Global Initiatives

TNFD

TNFD Recommended Disclosures		Report Page
Governance	a. Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities.	73
	b. Describe management's role in assessing and managing nature-related dependencies, impacts, risks and opportunities.	73
	c. Describe the organization's human rights policies and engagement activities, and oversight by the board and management, with respect to Indigenous Peoples, Local Communities, affected and other stakeholders, in the organization's assessment of, and response to, nature-related dependencies, impacts, risks and opportunities.	73
Strategy	a. Describe the nature-related dependencies, impacts, risks and opportunities the organization has identified over the short, medium and long term.	77-78
	b. Describe the effect nature-related dependencies, impacts, risks and opportunities have had on the organization's business model, value chain, strategy and financial planning, as well as any transition plans or analysis in place.	75-76, 79
	c. Describe the resilience of the organization's strategy to nature-related risks and opportunities, taking into consideration different scenarios.	77-78
	d. Disclose the locations of assets and/or activities in the organization's direct operations and, where possible, upstream and downstream value chain(s) that meet the criteria for priority locations.	74
Risk Manage-ment	a(i). Describe the organization's processes for identifying, assessing and prioritizing nature-related dependencies, impacts, risks and opportunities in its direct operations.	74
	a(ii). Describe the organization's processes for identifying, assessing and prioritizing nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s).	74
	b. Describe the organization's processes for monitoring nature-related dependencies, impacts, risks and opportunities.	74
	c. Describe how processes for identifying, assessing, prioritizing and monitoring nature-related risks are integrated into and inform the organization's overall risk management processes.	74
Metrics and Targets	a. Disclose the metrics used by the organization to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process.	80
	b. Disclose the metrics used by the organization to assess and manage dependencies and impacts on nature.	80
	c. Describe the targets and goals used by the organization to manage nature-related dependencies, impacts, risks and opportunities and its performance against these.	80

Participation in Global Initiatives

Protected areas in the vicinity of the site

IUCN Category[1]	Adjacent Protected Area[2]		
	Ulsan	Cheongju	Andong
Ia	0	0	0
Ib	0	0	0
II	0	0	0
III	0	0	0
IV	• Evergreen Forest in Mokdo Island Ulju • Ulsan Junggu Taehwadong • Ulsan Namgu Mugeodong • Moojechineup • Catchment Reserve Protection Area • Seokendam Valley • Taehwagang(river) • Ulsan Bukgu Songjeongdong • Forest Genetic Resources Reserve • Ulsan Namgu Seonamdong · Ulsan Bukgu Myeongchondong • Ulsan Urban Natural Park Areas	• Chungcheongbuk-do Urban Natural Park Areas • Catchment Reserve Protection Area • Carstor Aralia of Gongbuk-ri, Cheongwon • Sejong Yeongi Seomyeon • Chungnam Cheonan Byeongcheonmyeom • Sejong Yeongi Dongmyeon • Daejeon Daedeokgu Hwanghodong • Quince of Yeonje-ri, Cheongwon • Forest Genetic Resources Reserve • Landscape Reserve • Chungbuk Cheungju Muneoimyeon • Chinese Juniper of Bongsan-dong, Yeongi	• Catchment Reserve Protection Area • Forest of Oriental Arborvitae in Gu-ri, Andong • Pine Forest of Geumdangsil, Yecheon • Pinewoods of Mansongjeong Pavilion in Hahoe Village, Andong • Seoksongnyeong Pine Tree in Cheonhyang-ri, Yecheon • Landscape Reserve • Disaster Prevention Reserve • Gyeongbuk Andong Seohumyeon • Gyeongbuk Andong Seonggokdong • Gyeongbuk Yecheon Yecheoneup • Gyeongbuk UI-seong Shinpyeongmyeon • Chinese Juniper Tree of Juha-ri, Andong
V	• Gajisan	• Gobok Natural Park	• Hoeryongpo Winding Watercourse in Yecheon • Choganjeong Pavilion and Woodland Garden in Yecheon • Seonmongdae Pavilion and Surroundings in Yecheon
VI	• Sanin oki-Tokai kaiiki • Hoeya Dam • Daegok Dam • Natural Environment Conservation Areas	• Daecheongho(Daedeok-Gu) • Daecheongho(Cheongju) • Byeongcheon • Daecheong lake special measure areas for water quality conservation • Natural Environment Conservation Areas	• Andong Water Source Protection Area • Gamcheon Water Source Protection Area • Yongmun Water Source Protection Area • Yecheon Water Source Protection Area • Jibo Water Source Protection Area • Natural Environment Conservation Areas

1) Ia: Strict Nature Reserve, Ib: Wilderness Area, II: National Park, III: Natural Monument, IV: Habitat/Species Management Area, V: Protected Landscape/Seascape, VI: Protected Area with Sustainable Use of Natural Resources
2) No protected areas identified within the area of influence of the Pangyo, Shantou, and Yantai sites

Participation in Global Initiatives

Protected species in the vicinity of the site

IUCN Category[1]	Adjacent Protected species					
	Pangyo	Ulsan	Cheongju	Shantou	Yantai	Andong
CR	• Carcharias taurus • Eretmochelys imbricata • Rhina ancylostomus • Squatina japonica • Takifugu chinensis	• Carcharias taurus • Eretmochelys imbricata • Sphyrna lewini • Rhina ancylostomus • Alveopora japonica • Squatina japonica • Takifugu chinensis • Rhinobatos schlegelii • Tadorna cristata	0	• Carcharias taurus • Eretmochelys imbricata • Manis pentadactyla • Mauremys sinensis • Platysternon megacephalum • Carcharhinus hemiodon • Carcharhinus longimanus • Sphyrna lewini • Sphyrna mokarran • Anoxypristis cuspidata • Pristis zijsron • Rhina ancylostomus • Rhynchobatus australiae • Aetomylaeus vespertilio • Bahaba taipingensis • Aythya baeri • Calidris pygmaea • Emberiza aureola • Larimichthys crocea • Rhinobatos schlegelii • Glaucostegus typus • Cuora trifasciata • Megophrys insularis • Rhynchobatus laevis • Acipenser sinensis • Mauremys mutica • Pelochelys cantorii	• Carcharias taurus • Eretmochelys imbricata • Anoxypristis cuspidata • Rhina ancylostomus • Squatina japonica • Aythya baeri	• Galloisiana kosuensis • Pholcus nodong
EN	39	43	12	88	32	10
VU	54	56	18	88	45	16

1) CR: Critically Endangered, EN: Endangered, VU: Vulnerable

Participation in Global Initiatives

SASB | Chemicals

Category	SASB code	Accounting Metric		Unit	Report Page	Contents
SUSTAINABILITY DISCLOSURE TOPICS & ACCOUNTING METRICS						
GHG Emissions	RT-CH-110a.1	Scope 1 Emissions		Metric tons (tCO_2eq)	150	
		Scope 1 Percentage covered under emissions limiting regulations			-	100%
	RT-CH-110a.2	Scope 1 Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets		%	42	
Air Quality	RT-CH-120a.1	Air Pollutant Emissions	NOx emissions(excluding N2O)	Metric tons (t)	160	
			SOx Emissions		160	
			Volatile Organic Compounds(VOCs) Emissions		160	
			Hazardous Air Pollutants(HAPs) Emissions		-	0
Energy Management	RT-CH-130a.1	Total Energy Use		Gigajoules (GJ)	146-148	
		Grid Electricity Ratio		%	-	
		Renewable Energy Usage Ratio		%	149	
		Total Self-Generated Energy		Gigajoules (GJ)	149	
Water Management	RT-CH-140a.1	Total Water Withdrawal		Thousand cubic meters (m^3)	153-154	
		Total Water Consumption			153-154	
		Water Withdrawal Rate in Areas with High or Extremely High-Water Stress Index		%	-	2.4%
		Water Consumption Rate in Areas with High or Extremely High-Water Stress Index		%	-	0.1%
	RT-CH-140a.2	Number of Non-Compliance Cases with Water Quality Permits, Standards, and Regulations		Number	145	0
	RT-CH-140a.3	Description of Water Management Risks and Strategies and Activities to Mitigate Them			82-84	
Hazardous Waste Management	RT-CH-150a.1	Hazardous Waste Quantity	Generated Quantity	Metric tons (t)	158-159	
			Recycling Rate	%	158-159	
Community Relations	RT-CH-210a.1	Description of Processes to Manage Risks and Opportunities Related to Community Stakeholders			120-122	Implementation of Social Contribution Policies and Activities According to Mid- to Long-Term Community Social Contribution Goals

Participation in Global Initiatives

SASB | Chemicals

Category	SASB code	Accounting Metric		Unit	Report Page	Contents
SUSTAINABILITY DISCLOSURE TOPICS & ACCOUNTING METRICS						
Workplace Safety and Health	RT-CH-320a.1	Total Recordable Incident Rate(TRIR)	Full-time	Rate	163	0
			Contract employee	Rate	163	
		Fatality Rate	Full-time	Rate	163	0
			Contract employee	Rate	163	
	RT-CH-320a.2	Efforts to assess, monitor, and reduce regular/chronic health risks for employees and contract workers			103, 106	Pre-identification and improvement of workplace hazards, provision of health management programs
User-Stage Resource Efficiency	RT-CH-410a.1	Revenue from products considering user product resource efficiency(resource efficiency)			-	•
Environmental Safety Responsibility for Chemicals	RT-CH-410b.1	Proportion of product sales containing substances classified as GHS Category 1 and 2		Percentage(%) by revenue	-	•
		Proportion of products subjected to hazard assessment among the above		%	-	•
	RT-CH-410b.2	Strategies for chemical management and development of alternatives to reduce impacts on humans and the environment			91	Substitution and phased elimination of hazardous chemicals
Genetically Modified Materials	RT-CH-410c.1	Proportion of revenue from products containing genetically modified materials		Percentage(%) by revenue	-	•
Legal and Regulatory Environment Management	RT-CH-530a.1	Company position related to government regulations and policy proposals addressing environmental and social factors affecting the industry			-	•
Health and Safety and Emergency Response System	RT-CH-540a.1	Process Safety Incidents Count		Number	156	•
		Process Safety Total Incident Rate		Rate	156	•
		Process Safety Incident Severity Rate		Rate	156	•
	RT-CH-540a.2	Number of accidents during chemical transportation		Number	156	•
ACTIVITY METRICS						
	RT-CH-000.A	Product Volume by Item	Copolyester, DMT	Metric tons (t)	-	414,000
			BON	Metric tons (t)	-	11,000
			Refined	Tablet	-	639,795,000
			Patch	Patch	-	38,178,000

Participation in Global Initiatives

GRI STANDARD

Statement of use	The reporting organization SK chemicals applies the GRI Standard criteria to report sustainability management contents for the period from January 1, 2024, to December 31, 2024
GRI Used 1	GRI 1: Foundation 2021
Applicable GRI Sector Standards	As of June 2025, when SK chemicals publishes the report, there are no applicable GRI Sector Standards.

GRI Standards	Disclosure	Report Page	Remarks
General disclosures			
GRI 2 : General Disclosures 2021	2-1 Organizational details	6	
	2-2 Entities included in the organization's sustainability reporting	2	
	2-3 Reporting period, frequency and contact point	2	
	2-4 Restatements of information	Changes noted separately in footnotes	
	2-5 External assurance	188-189	
	2-6 Activities, value chain and other business relationships	7-14	
	2-7 Employees	164-165	
	2-8 Workers who are not employees	Business Report p358 Employee Status, etc.	
	2-9 Governance structure and composition	130	
	2-10 Nomination and selection of the highest governance body	132	
	2-11 Chair of the highest governance body	130	
	2-12 Role of the highest governance body in overseeing the management of impacts	132	
	2-13 Delegation of responsibility for managing impacts	132	
	2-14 Role of the highest governance body in sustainability reporting	132	
	2-15 Conflicts of interest	132	

GRI Standards	Disclosure	Report Page	Remarks
General disclosures			
GRI 2 : General Disclosures 2021	2-16 Communication of critical concerns	136	
	2-17 Collective knowledge of the highest governance body	133	
	2-18 Evaluation of the performance of the highest governance body	132	
	2-19 Remuneration policies	131, Business Report p356 Executive Remuneration, etc.	
	2-20 Process to determine remuneration	131	
	2-21 Annual total compensation ratio	131	
	2-22 Statement on sustainable development strategy	6	
	2-23 Policy commitments	30, 53, 69, 73, 97, 114, 125, 137	
	2-24 Embedding policy commitments	30, 53, 69, 73, 97, 114, 125, 137	
	2-25 Processes to remediate negative impacts	136	
	2-26 Mechanisms for seeking advice and raising concerns	128	
	2-27 Compliance with laws and regulations	145, 169-170	
	2-28 Membership associations	187	
	2-29 Approach to stakeholder engagement	172-173	
	2-30 Collective bargaining agreements	168	

Participation in Global Initiatives

GRI STANDARD

GRI Standards	Disclosure	Report Page	Remarks
Material Topics			
GRI 3 : Material Topic 2021	3-1 Process to determine material topics	21	
	3-2 List of material topics	22-24	
Material Topic 1. Climate Change Response			
GRI 3 : Material Topic 2021	3-3 Management of material topics	29-51	
GRI 201 : Economic Performance	201-2 Financial implications and other risks and opportunities due to climate change	34-37	
GRI 302 : Energy	302-1 Energy consumption within the organization	146-148	
	302-2 Energy consumption outside of the organization	146-148	
	302-3 Energy intensity	146	
	302-4 Reduction of energy consumption	39-40, 45	
	302-5 Reductions in energy requirements of products and services	60	
GRI 305 : Emissions	305-1 Direct GHG emissions(Scope 1)	150	
	305-2 Indirect GHG emissions(Scope 2)	150	
	305-3 Other Indirect GHG emissions(Scope 3)	152	
	305-4 GHG emissions intensity	150	
	305-5 Reduction of GHG emissions	151	
	305-6 Emissions of ozone-depleting substances(ODS)	151	
	305-7 Nitrogen oxides(NOx), sulfur oxides(SOx), and other significant air emissions	160	

GRI Standards	Disclosure	Report Page	Remarks
Material Topic 2. Circular Economy			
GRI 3 : Material Topic 2021	3-3 Management of material topics	52-65	
	301-1 Materials used by weight or volume	157	
	301-2 Recycled input materials used	157	
	301-3 Reclaimed products and their packaging materials	157	
GRI 306 : Waste	306-1 Waste generation and significant waste-related impacts	62	
	306-2 Management of significant waste-related impacts	62	
	306-3 Waste generated	158-159	
	306-4 Waste diverted from disposal	158-159	
	306-5 Waste directed to disposal	158-159	
Material Topic 4. Human Resources			
GRI 3: Material Topic 2021	3-3 Management of material topics	105-110	
GRI 401 : Employment	401-1 New employee hires and employee turnover	164-165	
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	110	
	401-3 Parental leave	167	
GRI 404 : Training and Education	404-1 Average hours of training per year per employee	168	
	404-2 Programs for upgrading employee skills and transition assistance programs	106-108	
	404-3 Percentage of employees receiving regular performance and career development reviews	168	
GRI 405 : Diversity and Equal Opportunity	405-1 Diversity of governance bodies and employees	169	
	405-2 Ratio of basic salary and remuneration of women to men	167	
GRI 406 : Non-discrimination	406-1 Incidents of discrimination and corrective actions taken	96-98	

Participation in Global Initiatives

GRI STANDARD

GRI Standards	Disclosure	Report Page	Remarks
Other GRI Index			
GRI 201: Economic Performance	201-1 Direct economic value generated and distributed	144	
	201-3 Defined benefit plan obligations and other retirement plans	167	
GRI 202 : Market Presence	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	Website GRI contents 202-1	
GRI 203: Indirect Economic Impacts	203-1 Infrastructure investments and services supported	120-122	
	203-2 Significant indirect economic impact	20	
GRI 204 : Procurement Practices	204-1 Proportion of spending on local suppliers	115	
GRI 205 : Anti-corruption	205-1 Operations assessed for risks related to corruption	128	
	205-2 Communication and training about anti-corruption policies and procedures	127	
	205-3 Confirmed incidents of corruption and actions taken	128	
GRI 206 : Anti-competitive Behavior	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices Website GRI contents	Website GRI contents 206-1	
GRI 207 : Tax	207-1 Approach to tax Website GRI contents	Website GRI contents 207-1	
	207-2 Tax governance, control, and risk management	134	
	207-4 Country-by-country reporting Website GRI contents	Website GRI contents 207-4	
GRI 303 : Water and Effluents	303-1 Interactions with water as a shared resource	153-154	
	303-2 Management of water discharge-related impacts	82-84, 155-156	
	303-3 Water withdrawal	153-154	
	303-4 Water discharge	153-154	
	303-5 Water consumption	153-154	

GRI Standards	Disclosure	Report Page	Remarks
GRI 304 : Biodiversity	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected area	74-81	
	304-2 Significant impacts of activities, products and services on biodiversity	74-81	
	304-3 Habitats protected or restored	74-81	
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	179-180	
Other GRI Index			
GRI 307 : Environmental Compliance	307-1 Non-compliance with environmental laws and regulations	145	
GRI 308 : Supplier Environmental Assessment	308-1 New suppliers that were screened using environmental criteria	115-117	
	308-2 Negative environmental impacts in the supply chain and actions taken	115-117	
GRI 403 : Occupational Health and Safety	403-1 Occupational health and safety management system	99	
	403-2 Hazard identification, risk assessment, and incident investigation	101-102	
	403-3 Occupational health services	103-104	
	403-4 Worker participation, consultation, and communication on occupational health and safety	103	
	403-5 Worker training on occupational health and safety	101	
	403-6 Promotion of worker health	104	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	101-104	
	403-8 Workers covered by an occupational health and safety management system	99	
	403-9 Work-related injuries	163	
	403-10 Work-related ill health	163	

Participation in Global Initiatives

GRI STANDARD

GRI Standards	Disclosure	Report Page	Remarks
GRI 407 : Freedom of Association and Collective Bargaining	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Website GRI contents 407-1	
GRI 408 : Child Labor	408-1 Operations and suppliers at significant risk for incidents of child labor	Website GRI contents 408-1	
GRI 409 : Forced or Compulsory Labor	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	Website GRI contents 409-1	
GRI 413 : Local Communities	413-1 Operations with local community engagement, impact assessments, and development programs	120-122	
	413-2 Operations with significant actual and potential negative impacts on local communities	Website GRI contents 413-2	
GRI 414 : Supplier Social Assessment	414-1 New suppliers that were screened using social criteria	115-117	
	414-2 Negative social impacts in the supply chain and actions taken	118	
GRI 415 : Public Policy	415-1 Political contributions	Website GRI contents 415-1	
GRI 416 : Customer Health and Safety	416-1 Assessment of the health and safety impacts of product and service categories	Website GRI contents 416-1	
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Website GRI contents 416-2	
GRI 418 : Customer Privacy	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	170, Website GRI contents 418-1	

Participating Associations and Organizations

Korea Nurses Association Gyeonggi-do Nurses Society	Korea Employers Federation	Korea Listed Companies Association	Gyeonggi Employers Federation
Ulsan Regional Environmental Conservation Council	Korea Industrial Technology Promotion Association	Korea Occupational Health Nursing Association	Green Plastic Union Corporation
Korea Radiation Promotion Association	Korea Pharmaceutical and Bio-Pharma Manufacturers Association	Ulsan Environmental Technicians Association Corporation	Ulsan Metropolitan City Factory Managers Council
Korea Medical Library Association	Korean Hospital Association Future Medical Industry Council	Yongyeon Yongjam Complex Factory Managers Council	Chungcheongbuk-do Environmental Conservation Association
Large Enterprises General Affairs Department Heads Council	Seoul Pharmaceutical Development Council	Ulsan General Affairs Department Heads Council	Ulsan Yangsan Employers Federation
Korea Nurses Association Ulsan Branch Corporation	Ulsan Yeocheon Safety Council	Korea Electrical Engineers Association	Korea Fair Competition Federation
Ulsan Industrial Complex Managers Council	Korea Pharmaceutical Association	Korea Industrial Safety Association Ulsan Branch Corporation	Korean Institute of Chemical Engineers Corporation
Korea Fire Safety Association	Korea Industrial Safety Association Seongnam Branch Corporation	Korea International Trade Association Corporation	Korea Polymer Materials Research Association
Korean Hospital Association Corporation	Korea Customs and Logistics Association Corporation	Korea Pharmaceutical Export-Import Association Corporation	Korea Chemical Industry Association
Pharmaceutical Development Experts Association			

Independent Assurance Statement

To readers of 2024 SK chemicals Sustainability Report

Introduction

Korea Management Registrar (KMR) was engaged to conduct an independent assurance of 2024 SK chemicals Sustainability Report for the year ending December 31, 2024. The preparation, information and internal control of the report are the sole responsibility of SK chemicals' the management. KMR's responsibility is to comply with the agreed engagement and express an opinion to SK chemicals' management.

Subject Matter

The reporting boundaries included the performance and activities of sustainability-related organizations as described in SK chemicals' report

- 2024 SK chemicals Sustainability Report
- FY2024 SK chemicals GRI Contents Table

Reference Standard

- GRI Standards 2021 : 2023 (GRI)

Assurance criteria

KMR conducted the verification in accordance with the globally recognized standard AA1000AS v3 and KMR's assurance standard SRV1000 based on requirements of ISO 17029 and KMR EDV 01, and set the levels of assurance and materiality as below. Under AA1000AS v3, We assessed the adherence to the four principles presented in AA1000AP:2018—Inclusivity, Materiality, Responsiveness, and Impact—and evaluated the reliability and quality of the data and information using the GRI index specified in the report. Under SRV1000, we conducted a multidimensional review aimed at zero data errors, applying expert judgment to determine the materiality criteria.

- ISO 17029 : 2019, ISO 14065 : 2020, AA1000AS v3 : 2020 (AccountAbility), AA1000AP : 2018 (AccountAbility), SRV1000 : 2022 (KMR), KMR EDV 01 : 2024 (KMR)
- Levels of assurance/materiality: AA1000AS v3 – Type 2/moderate, limited/ not set

Scope of assurance

The scope of our assurance included the verification of compliance with the reporting requirements of the GRI Standards 2021. We confirmed that the following indicators of material topics were identified through the materiality assessment process.

- GRI Standards 2021 reporting principles
- Universal Standards
- Topic Specific Standards

  - General Disclosures: GRI 2-1~2-30
  - Material Topics: GRI 3-1~3-3
  - Economic Performance: GRI 201-1~201-3
  - Market Presence: GRI 202-1
  - Indirect Economic Impacts: GRI 203-1~203-2
  - Procurement Practices: GRI 204-1
  - Anti-corruption: GRI 205-1~205-3
  - Anti-competitive Behavior: GRI 206-1
  - Tax: GRI 207-1~207-4
  - Materials: GRI 301-1~301-3
  - Energy: GRI 302-1~302-5
  - Water and Effluents: GRI 303-1~303-5
  - Biodiversity: GRI 304-1~304-4
  - Emissions: GRI 305-1~305-7
  - Waste: GRI 306-1~306-5
  - Supplier Environmental Assessment: GRI 308-1~308-2
  - Employment: GRI 401-1~401-3
  - Occupational Health and Safety: GRI 403-1~403-10
  - Training and Education: GRI 404-1~404-3
  - Diversity and Equal Opportunity: GRI 405-1~405-2
  - Non-discrimination: GRI 406-1
  - Freedom of Association and Collective Bargaining: GRI 407-1
  - Child Labor: GRI 408-1
  - Forced or Compulsory Labor: GRI 409-1
  - Local Communities: GRI 413-1~413-2
  - Supplier Social Assessment: GRI 414-1~414-2
  - Public Policy: GRI 415-1
  - Customer Health and Safety: GRI 416-1~416-2
  - Customer Privacy: GRI 418-1

As for the reporting boundary, the engagement excludes the data and information of SK chemicals' partners, suppliers and any third parties.

KMR's Approach

To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the engagement.

- Evaluating the appropriateness of the reference standard used as a basis for preparing sustainability information and the reliability of the materiality assessment process and its findings.
- Conducting inquiries to understand the data management and control environment, processes, and information systems (the effectiveness of controls was not tested).
- Evaluating the appropriateness and consistency of the methodology for estimation (note that the underlying data was not tested and KMR has not made any estimates).
- Visiting the headquarters, determining visit sites based on the site's contribution to sustainability and the possibility of unexpected changes since the previous period and sampling data, and carrying out due diligence on a limited number of source records at the sites visited.
- Interviewing people in charge of preparing the report
- Considering whether the presentation and disclosures of sustainability information are accurate and clearly defined
- Identifying errors through comparison and check against underlying information, recalculation, analyses, and backtracking; and
- Evaluating the reliability and balance of information based on independent external sources, public databases, and press releases.

Independent Assurance Statement

Limitations and Recommendations

The absence of generally accepted reporting frameworks or well-established practices on which to draw to evaluate and measure non-financial information allows for different measures and measuring techniques, which can affect comparability between entities. Therefore, our assurance team relied on professional judgment. The scope of this assurance included the confirmation of the truthfulness of claims regarding results that have already been obtained as stipulated by ISO 17029. However, the plausibility of intended claims of forecasts or hypotheses was not validated even if the related content was contained in the report.
A limited assurance evaluates the appropriateness of the criteria used by SK chemicals for preparing sustainability information on subject matters, the risk of material misstatement in the sustainability information, whether due to fraud or error, responses to risks, and disclosure of the sustainability information on subject matters. However, the scope of the risk assessment process and the subsequent procedures performed in response to assessed risks, including an understanding of internal controls, is more limited than that of a reasonable assurance.
Our assurance team conducted our work to a limited extent through inquiries, analysis, and limited sampling based on the assumption that the data and information provided by SK chemicals are complete and sufficient. To overcome these limitations, we confirmed the quality and reliability of the information by referring to independent external sources and public databases, such as DART and the National GHGs Management System (NGMS).

Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with SK chemicals on the revision of the Report. We reviewed the Report's final version in order to make sure that our recommendations for improvement and revision have been reflected. Based on the work performed, it is our opinion that the Report applied the GRI Standards. Nothing comes to our attention to suggest that the Report was not prepared in accordance with the AA1000AP (2018) principles. Inclusivity SK chemicals has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

Inclusivity
SK chemicals has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

Materiality
SK chemicals has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

Responsiveness
SK chemicals prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of SK chemicals' actions.

Impact
SK chemicals identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

Reliability of Specific Sustainability Performance Information
In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of data related sustainability performance, including greenhouse gas emissions. energy consumption, waste generation, renewable energy generation, and LCA result. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

KMR's Competence, Independence, and Quality Control

Korea Management Registrar (KMR) is a verification body for the greenhouse gas emissions trading scheme, accredited by the Korea Laboratory Accreditation Scheme (KOLAS) under the National Institute of Technology and Standards of Korea for ISO/IEC 17029:2019 (Conformity Assessment - General principles and requirements for validation and verification bodies), ISO 14067, and additional accreditation criteria, ISO 14065. It is also recognized by the Korea Accreditation Board (KAB) for ISO/IEC 17021:2015 (Requirements for bodies providing audit and certification of management systems), and the National Institute of Environmental Research under the Ministry of Environment of Korea. Additionally, KMR maintains a comprehensive quality control system that includes documented policies and procedures of the KMR EDV 01:2024 (ESG Disclosure Assurance System) based on ISO/IEC 17029 requirements and compliant with IAASB ISQM1:2022 (International Standard on Quality Management 1 by the International Auditing and Assurance Standards Board). Furthermore, KMR adheres to the ethical requirements of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior in accordance with the IESBA Code:2023 (International Code of Ethics for Professional Accountants). Our assurance team consists of sustainability experts. Other than providing an independent assurance, KMR has no other contract with SK chemicals and did not provide any services to SK chemicals that could compromise the independence of our work.

Limitations of Use

This assurance statement is made solely for the management of SK chemicals for the purpose of enhancing an understanding of the organization's sustainability performance and activities. We assume no liability or responsibility for its use by third parties other than the management of SK chemicals. The statement is valid as of the assurance date below. Certain events that may occur between the assurance date and the time of reading this report could have a material impact on the report, which may lead to revisions to this assurance statement. Therefore, we recommend visiting the SK chemicals website and verifying whether this is the latest version.

June 20, 2025
CEO

KMR SRV1000 Sustainability Committee Assurance AA1000 Licensed Report 000-129/V3-9KCDG

Greenhouse Gas Verification Statement

SK chemicals | Scope 1, 2

GV-25215

Verification Opinion Statement

GHG Emissions Verification — SK chemicals

Verification Target
Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of Greenhouse Gas Emissions (hereinafter 'GHG Inventory') of SK chemicals[1] (hereinafter 'Company') for 2024.
1) Address (based on headquarters) : 310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea

Verification Purpose
The purpose is to ensure the reliability of the company's GHG Report in relation to the operation of the Emissions Trading Scheme.

Verification Scope
KFQ's verification covered on all facilities and emission sources under the operational control and organizational boundary of the Company during 2024.

Verification Criteria
The verification process was based on [Rule for emission reporting and certification of GHG emission trading Scheme[2]], [Rules for verification of operating the GHG emission trading scheme[3]] and [ISO14064-3] for every applicable part.
2) Notification No. 2025-28 of Ministry of Environment 3) Notification No. 2024-169 of Ministry of Environment

Level of Assurance
The Verification has been planned and conducted as the 'Rules for verification of operating the greenhouse gas emission trading scheme', and the level of assurance for verification shall be satisfied as reasonable level of assurance. And it was confirmed through an internal review whether the process before the verification was conducted effectively.

Verification Limitation
The verification shall contain the potential inherent limitation in the process of application of the verification criteria and methodology.

Verification Opinions
Regarding to the data of the Greenhouse Gas Emission Consumption from the report through the verification, KFQ provides our verification opinions as below;
1) GHG emissions have been appropriately calculated according to the "Rule for emission reporting and certification of GHG emission trading Scheme" and " ISO 14064-1:2018 " methodologies.
2) The company's GHG emissions are less than 5,00,000 tCO_2-eq, complying with the materiality threshold of below 5% of total emissions.
3) Thus, KFQ concludes that GHG Emissions of Company in 2024 is correctly calculated and reported in accordance with "Rule for emission reporting and certification of GHG emission trading Scheme".

Unit : tCO_2eq

Scope 1	Scope 2	총계
47,757.351	174,636.97	222,391

* The totals in this verification statement do not match the totals in emission trading scheme because the total emissions of each facility are calculated by truncating to integer units

June 9th, 2025
Ji Young Song
CEO Ji-Young Song
Korean Foundation for Quality

IAF National Institute of Environmental Research
www.kfq.or.kr
Q Tower, 78 Samjeon-ro, Songpa-gu, Seoul, 05606, Republic of Korea
kfq Korean Foundation for Quality
QA1500-05-GI(2)

SK chemicals | Scope 3

GI-25236

Verification Opinion Statement

GHG Emissions Verification — SK Chemicals, SK Chemicals (Yantai) Co., Ltd., Shuye SK Chemicals (Shantou) Co., Ltd.

Verification Target
Korean Foundation for Quality (hereinafter 'KFQ') has conducted a verification of Scope 3 Greenhouse Gas Emissions (hereinafter 'GHG emissions') of SK chemicals, SK Chemicals (Yantai) Co., Ltd., Shuye SK Chemicals (Shantou) Co., Ltd.[1] (hereinafter 'Company') for 2024. KFQ is responsible for providing an assurance statement on the GHG emissions based on the verification scope and criteria described below, while the responsibility for the claims made regarding the GHG emissions rests with the company.
1) Address (based on headquarters) : 310 Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do (Sampyeong-dong)

Verification Purpose
The purpose is to provide an independent verification opinion on the company's Scope3 emissions.

Verification Scope
The verification covered the ten emission categories [2] selected by the company during 2024.
2) Category 1,2,3,4,5,6,7,10,12,15

Verification Criteria
The following criteria and coefficients used by the company were applied.
• Criteria
- ISO 14064-1:2018, ISO14064-3:2019
- GHG Protocol Corporate Standard
- WBCSD/WRI, Corporate Value Chain (Scope 3) Accounting and Reporting Standard
- Rule for emission reporting and certification of greenhouse gas emission trading Scheme
• Coefficient
- Environmental Product Declaration evaluation coefficient (2021)
- Ecoinvent database 3.9.1

Level of Assurance
The verification has been conducted in accordance with the verification principles and standards of the 'ISO14064-3:2019' under the limited verification level.

Verification Limitation
GHG emissions verification involves inherent limitations that may arise depending on the organization's data characteristics, calculations and estimates, sampling method, and limited assurance level. Additionally, this verification does not include responsibility for the accuracy of the original data provided by the company.

Conclusion
Based on the criteria and guidelines stated above, KFQ's verification opinion is as follows.
1) GHG emissions of the company for 2024 were properly calculated based on the materials provided, and no material errors or omissions that could affect the verification opinion were identified.
2) The criteria and process established by the company for calculating GHG emissions were transparently documented in the internal calculation process to prevent potential misunderstandings.
3) Accordingly, KFQ provides a verification opinion that is "Unmodified".

Appendix. Summary of Scope3 GHG Emission Results

May 22, 2025
Ji Young Song
CEO Ji-Young Song
Korean Foundation for Quality

IAF National Institute of Environmental Research
www.kfq.or.kr
Q Tower, 78 Samjeon-ro, Songpa-gu, Seoul, 05606, Republic of Korea
kfq Korean Foundation for Quality
QA1500-05-GI(2)

GI-25236

Appendix. Summary of Scope 3 GHG Emission Results

Organization
SK Chemicals, SK Chemicals (Yantai) Co., Ltd., Shuye SK Chemicals (Shantou) Co., Ltd.

Emission calculation period
The emission calculation period is from January 1st to December 31st, 2024.

Company Scope 3 Emissions verification Results

Unit : tCO_2eq

	Category[1]	Total emissions
1	Purchased goods & services	412,683
2	Capital goods	866
3	Fuel and Energy-related activities not included in Scope 1+2	49,988
4	Upstream transportation and distribution	25,292
5	Waste generated in operations	6,525
6	Business travel	804
7	Employee commuting	1,339
10	Processing of sold products	89,518
12	End of life treatment of sold products	470,097
15	Investments	263,448
	Total[1]	1,320,559

1) Each category-specific emission and the total emissions are rounded to the nearest whole number, which may result in a discrepancy of less than ±1 tCO_2e compared to the actual values

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QA1500-05-GI(2)

Greenhouse Gas Verification Statement

SK chemicals Yantai Co., Ltd. | Scope 1, 2

Bureau Veritas Certification

Greenhouse Gases Verification Opinion

is awarded to

SK CHEMICALS (YANTAI) CO., LTD.

Bureau Veritas Certification (Beijing) Co., Ltd. was engaged to conduct an independent verification of the greenhouse gas (GHG) emissions reported by SK CHEMICALS (YANTAI) CO., LTD. for the period stated below. This verification opinion applies to the related information included within the scope of work described below.

Boundaries covered by the verification:

- Verification site name: SK CHEMICALS (YANTAI) CO., LTD.
- Verification site address: 10 Xi'an Road, Yantai Economic and Technological Development Area, Shandong Province, China
- Reporting period covered: 01/01/2024 to 31/12/2024

Organizational boundaries: Activities and facilities of SK CHEMICALS (YANTAI) CO., LTD. under operational control approach

Reporting boundaries: GHG emissions generated in PET/PBT and copolyester production and related management activities within the organizational boundaries, as well as significant indirect greenhouse gasee emissions.

Emissions data verified under reporting boundaries:

- Category 1: Direct GHG emissions: 5,896.41 tCO_2e
- Category 2: Indirect GHG emissions from imported energy: 14,877.37 tCO_2e
- Total quantified emissions: 20,773.78 tCO_2e

Limitations and exclusions: Excluding Category 3 ~ Category 6

GHG verification protocol used to conduct the verification:

- ISO 14064-1:2018 Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
- ISO 14064-3:2019 Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

Level of assurance:

- Reasonable assurance

GHG verification methodology:

- Interview for relevant personnel;
- Review of the documentary evidence;
- Evaluation of the methodology and information systems for data collection, aggregation, analysis and review;
- Audit of sampled sites and data to verify source.

Verification conclusion:

Based on the verification process and findings, the GHG emission data in the GHG inventory report from SK CHEMICALS (YANTAI) CO., LTD. is in compliance with ISO 14064-1:2018 Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

Certification body address: Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738
Further clarifications regarding the verification scope of this opinion may be obtained by consulting the organization.
To check this opinion validity please call: +86 10 59683663

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Bureau Veritas Certification

Statement of independence, impartiality and competence:

Bureau Veritas Group is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with over 190 years' history in providing independent assurance services.

No member of the verification team has a business relationship with SK CHEMICALS (YANTAI) CO., LTD. and its directors or managers beyond that required by this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest.

Bureau Veritas Group has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

Lead verifier: Pin Tian
Statement No.: EMICN100579A
Version No.: No.1
Verification date: 26/02/2025
Issue date: 21/04/2025

Signed on behalf of
Bureau Veritas Certification (Beijing) Co., Ltd.

Certification body address: Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738
Further clarifications regarding the verification scope of this opinion may be obtained by consulting the organization.
To check this opinion validity please call: +86 10 59683663

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Shuye-SK chemicals(Shantou)Co., Ltd | Scope 1, 2

Bureau Veritas Certification

Greenhouse Gases Verification Opinion

is awarded to

SHUYE SK CHEMICALS (SHANTOU) CO., LTD.

Bureau Veritas Certification (Beijing) Co., Ltd. was engaged to conduct an independent verification of the greenhouse gas (GHG) emissions reported by SHUYE SK CHEMICALS (SHANTOU) CO., LTD. for the period stated below. This verification opinion applies to the related information included within the scope of work described below.

Boundaries covered by the verification:

- Verification site name: SHUYE SK CHEMICALS (SHANTOU) CO., LTD.
- Verification site address: Jinhu Circular Economy Park, No. 3 Sijiang Road, Yanhong Town, Chenghai District, Shantou City
- Reporting period covered: 01/01/2024 to 31/12/2024

Organizational boundaries: Activities and facilities of SHUYE SK CHEMICALS (SHANTOU) CO., LTD. under operational control approach

Reporting boundaries: GHG emissions generated in Recycled Polyester New Material production and related management activities within the organizational boundaries, as well as significant indirect greenhouse gases emissions.

Emissions data verified under reporting boundaries:

- Category 1: Direct GHG emissions: 23,228.86 tCO_2e
- Category 2: Indirect GHG emissions from imported energy: 7,768.86 tCO_2e
- Total quantified emissions: 30,997.71 tCO_2e

Limitations and exclusions: Excluding Category 3~ Category 6

GHG verification protocol used to conduct the verification:

- ISO 14064-1:2018 Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
- ISO 14064-3:2019 Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

Level of assurance:

- Reasonable assurance

GHG verification methodology:

- Interview for relevant personnel;
- Review of the documentary evidence;
- Evaluation of the methodology and information systems for data collection, aggregation, analysis and review;
- Audit of sampled sites and data to verify source.

Verification conclusion:

Based on the verification process and findings, the GHG emission data in the GHG inventory report from SHUYE SK CHEMICALS (SHANTOU) CO., LTD. is in compliance with ISO 14064-1:2018 Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.

Certification body address: Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738
Further clarifications regarding the verification scope of this opinion may be obtained by consulting the organization.
To check this opinion validity please call: +86 10 59683663

Page 1 of 2

Bureau Veritas Certification

Statement of independence, impartiality and competence:

Bureau Veritas Group is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with over 190 years' history in providing independent assurance services.

No member of the verification team has a business relationship with SHUYE SK CHEMICALS (SHANTOU) CO., LTD. and its directors or managers beyond that required by this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest.

Bureau Veritas Group has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

Lead verifier: Pin Tian
Statement No.: EMICN100580A
Version No.: No.2
Verification date: 25/02/2025
Issue date: 21/04/2025

Signed on behalf of
Bureau Veritas Certification (Beijing) Co., Ltd.

Certification body address: Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738
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Greenhouse Gas Verification Statement

SK chemicals Overseas Sales/Branch, SK chemicals Daejeong | Scope 1, 2

DNV

Independent Verification Opinion

SK CHEMICALS CO., LTD.

Introduction

DNV Business Assurance Korea Ltd. ("DNV") was commissioned by SK Chemicals Co., Ltd.("Company") to perform third party verification for the Company's Greenhouse Gas Statement. The Company is responsible for the preparation of the GHG statement on the basis set out within Audit Standard, 'ISO 14064-1:2018' , 'WRI/WBCSD GHG Protocol: A Corporate Accounting and Reporting Standard ', 'IPCC Guidelines: 2006' The Company has full responsibility of the GHG statement. According to terms of contract, DNV expressly disclaims any liability or responsibility for any decisions, based upon the verification opinion.

Objective and Scope of Verification

The objective of the verification is to present an independent verification opinion on the company's GHG statement, and the scope of verification is as follows;

- Organizational Boundary: SK Chemicals' subsidiaries (SK Chemicals America, SK Chemicals-Daejung Co., Ltd., SK Chemicals GmbH, SK Chemicals Malaysia, SK Chemicals Shanghai Co., Ltd. SK Chemicals Japan Branch
- Reporting Boundary: Scope 1 (Direct emissions), Scope 2 (Indirect emissions: location based, market based)
- Reporting Period: 2023.01.01 ~ 2024.12.31

Verification Approach

The verification has been conducted in accordance with the verification principles and tasks outlined in the 'ISO 14064-3:2019', based upon a Limited Level of assurance. DNV planned and concluded our work so as to obtain all the information and explanations deemed necessary to provide us with sufficient evidence to provide a verification opinion with 5% materiality level. As part of the verification process, we have reviewed as follows;

- Adequacy of GHG data control, collection and emission calculation and report process
- The GHG inventory is based on measurements and has inherent limitations that may arise from the process of calculating, estimating, and finalizing the reported data.

Conclusions

Based on the verification, there is no evidence that the GHG statement is not materially correct and is not a fair representation of GHG data and information.

- DNV represents "unmodified" opinion on Greenhouse Gas Emissions.

(Unit: ton CO_2 equivalent, TJ)

Year	Direct Emissions (Scope1)	Indirect Emissions (Location base) (Scope2)	Indirect Emissions (Market base) (Scope2)	Total Emissions (Location base)	Total Emissions (Market base)	Energy Consumption
Yr. 2023	77	486	487	563	564	9.665
Yr. 2024	83	526	526	609	609	10.497

※ In order to report the GHG emissions as an integer, the rounded number might be different from the number on the calculation tool with ± 1 tCO_2e.

2025. 5. 16
Seoul, Republic of Korea

Lee, Jang Sup
Country Representative
DNV Business Assurance Korea Ltd.

This Assurance Opinion is valid as of the date of the issuance. Please note that this Assurance Opinion would be revised if any material discrepancy which may impact the Greenhouse Gas Emissions of the Company is subsequently brought to our attention.

DNV Business Assurance Korea: 18F, 1, Jong-ro, Jongno-gu, Seoul, Rep. of Korea

PRJN-954626-01-AST-ENG
FOP_01_05_Rev.2

DNV

Annex to ' PRJN-954626-01-AST-ENG '

SK Chemicals' subsidiaries Greenhouse Gas Emissions

(Unit: ton CO_2 equivalent, TJ)

Yr 2024	GHG Emissions (tCO_2-eq)					Energy Consumption (TJ)		
	Direct Emissions (Scope1)	Indirect Emissions (Location base) (Scope2)	Indirect Emissions (Market base) (Scope2)	Total Emissions (Location base)	Total Emissions (Market base)	Fuel	Electricity /Steam	Total
SK Chemicals America	7.279	4.427	4.427	11.706	11.706	0.105	0.070	0.175
SK Chemicals Daejung Co., Ltd.	-	462.343	462.343	462.343	462.343	-	8.316	8.316
SK Chemicals GmbH	31.357	2.991	4.108	34.348	35.465	0.456	0.033	0.489
SK Chemicals Malaysia	4.767	4.757	4.757	9.524	9.524	0.070	0.022	0.092
SK Chemicals Shanghai Co., Ltd.	31.710	7.059	7.059	38.768	38.768	0.477	0.046	0.523
SK Chemicals Japan Branch	2.086	4.507	4.507	6.593	6.593	0.031	0.038	0.069
Total	**77.198**	**486.084**	**487.201**	**563.282**	**564.399**	**1.139**	**8.526**	**9.665**

Yr 2023	GHG Emissions (tCO_2-eq)					Energy Consumption (TJ)		
	Direct Emissions (Scope1)	Indirect Emissions (Location base) (Scope2)	Indirect Emissions (Market base) (Scope2)	Total Emissions (Location base)	Total Emissions (Market base)	Fuel	Electricity /Steam	Total
SK Chemicals America	6.682	5.130	5.130	11.812	11.812	0.096	0.076	0.173
SK Chemicals Daejung Co., Ltd.	-	501.692	501.692	501.692	501.692	-	9.062	9.062
SK Chemicals GmbH	33.054	2.708	2.493	35.762	35.547	0.480	0.026	0.505
SK Chemicals Malaysia	6.051	4.020	4.020	10.071	10.071	0.089	0.019	0.108
SK Chemicals Shanghai Co., Ltd.	35.316	7.666	7.666	42.982	42.982	0.531	0.050	0.581
SK Chemicals Japan Branch	1.961	4.846	4.846	6.806	6.806	0.029	0.040	0.069
Total	**83.063**	**526.062**	**525.846**	**609.125**	**608.909**	**1.226**	**9.272**	**10.497**

This Assurance Opinion is valid as of the date of the issuance. Please note that this Assurance Opinion would be revised if any material discrepancy which may impact the Greenhouse Gas Emissions of the Company is subsequently brought to our attention.

DNV Business Assurance Korea: 18F, 1, Jong-ro, Jongno-gu, Seoul, Rep. of Korea

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