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WE CARE FOR THE FUTURE

Healthcare & Earthcare

SK Chemicals Sustainability Report 2015

SK Chemicals Sustainability Report 2015

SK chemicals

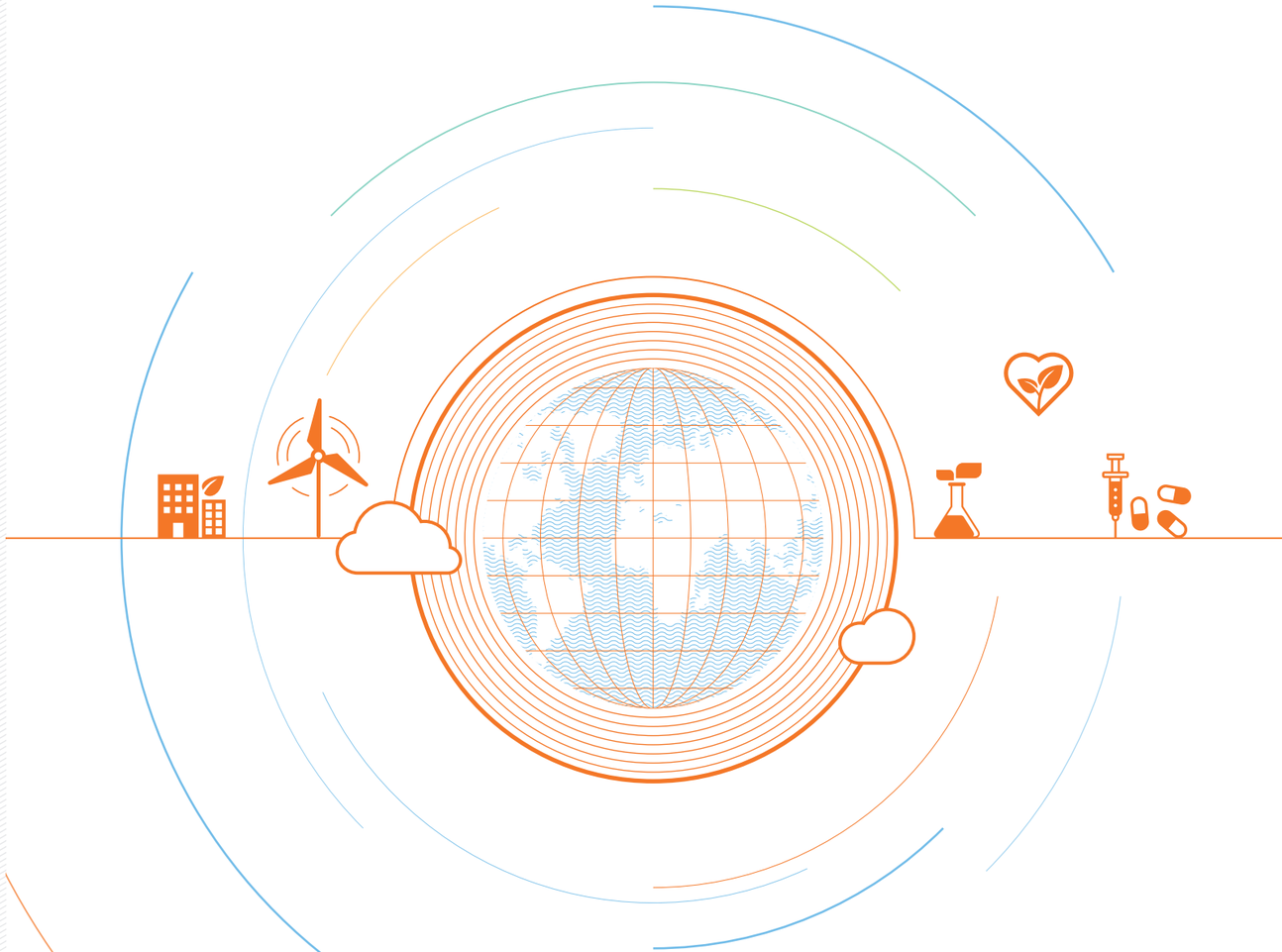
Pangyo-ro 310, Bundang-gu, Seongnam, Gyeonggi

02 - 2008 - 2040
http://www.skchemicals.com

SK chemicals

Contents

Cover
<SK Chemicals Sustainability Report 2015> used intuitive icons to help readers better understand key information. The icons on the cover symbolize the company's business line, key strategies, and achievements.



We are committed to
promoting the health of mankind and
protecting the earth's environment.

Massage from the CEO

SK Chemicals / CEO **Kim Cheol** 金 徹

SK Chemicals / CEO **Park Manhn Hoon** 朴 萬 勳

Dear Stakeholders,

First, I would like to express my deepest gratitude to all our stakeholders for their continued interest in and support for SK Chemicals. We are pleased to publish our 5th sustainability report, which is intended serve as a channel of communication with our employees and external stakeholders, and to keep them informed of our sustainability management measures.
In our previous report, we shared the present and future values necessary to enhance the company's sustainability in the process of realizing the mission and vision of SK Chemicals. The 5th report details how SK Chemicals has responded to major issues that have significant impact on society. I sincerely hope that the report will serve as a tool for communicating the values being pursued by SK Chemicals to external stakeholders including shareholders, customers, and businesses.

First, SK Chemicals strives to implement transparent and ethical management, given the impact that corporations have on society.

SK Chemicals operates a surveillance system to monitor and prevent sexual harassment, abuse of power(bribery, illegal employment, illegal requests, inappropriate orders, and wrongdoings involving procurement) and illegal acts. Any unethical behavior is subject to strict disciplinary actions. SK Chemicals also strives to enhance the quality and safety of its products and to ensure that the products are environment-friendly by performing clinical trials in a responsible manner, making GMP certification standards more stringent, and thereby having more products certified as environment-friendly.

Second, SK Chemicals is proactively responding to safety, health, and environment(SHE) issues to keep its workplace safe and healthy.

The SK Group defined SHE issues as social issues in 2014 and asked its affiliated companies to establish a SHE policy and identify elements and tasks for SHE management in 2015. In response to the request from the SK Group, SK Chemicals set up a team dedicated to managing SHE issues in 2015 and determined the company-wide SHE policy and elements. We are preparing a list of tasks for each individual workplace. In 2016, our focus will be on preventing accidents involving the identified elements.

Third, SK Chemicals is constantly improving its system to enhance HR competencies to establish an improved corporate culture.

With the market conditions continuing to change at a rapid rate, developing high-quality human resources possessing professional competences is essential to ensure the company's sustainable growth. In this context, SK Chemicals provides its employees with self-improvement opportunities as well as an environment that encourages constant self-improvement in order to make both individual employees and the organization as a whole even more competitive. In addition, the company is striving to foster a culture of free and effective communication and promote balance between work and family in order to help our employees become more productive.

As a leading chemical and pharmaceutical company, SK Chemicals will continue its efforts to expand its foundation for creating economic values. The company will constantly seek ways to improve its sustainability by promoting ethical behavior, resolving safety and environment issues, enhancing the competencies of employees, and fostering a better corporate culture.
I expect all of these efforts to add up to make a better and happier society for all. Finally, I hope that all the stakeholders who read this report will be able to join us on the path to a happy society that SK Chemicals is trying to make.

Thank you.

Company Overview

Global Network

SK Chemicals is headquartered in Pangyo(Eco Lab) and operates four plants in Ulsan, Osan(SK Plasma), Andong(L HOUSE), and Cheongju(S HOUSE) in Korea. The Ulsan plant manufactures chemical products, while the other plants produce preventive and therapeutic medicines. In addition, the company has plants in two Chinese cities, Suzhou and Qingdao, and regional offices in Germany, Singapore, and the United States.

- **Headquarters · Domestic Plants** : Pangyo(Eco Lab), Osan(SK Plasma), Ulsan, Andong(L HOUSE), Cheongju(S HOUSE)
- **Regional Offices** : Frankfurt, Singapore, Beijing, Guangzhou, Shanghai, Tokyo, Irvine, New York
- **Overseas Plants** : Qingdao, Suzhou

Basic Information

Company Name	SK Chemicals Co., Ltd.
Address(Headquarters)	310, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do
Business Line	Chemicals, Pharmaceuticals
No. of Employees	1,677

* As of December 31, 2015

Subsidiaries and Affiliated Companies

Major Subsidiaries

SK Gas Co., Ltd.
Ownership ratio 57.40%
Import, storage, and sale of LPG

SK Syntec Co., Ltd.
Ownership ratio 100.00%
Management consulting, etc.

Intervest Bio Fund
Ownership ratio 71.43%
Investments in and lending to individuals who start a small business

SK Plasma Co., Ltd.
Ownership ratio 60.00%
Manufacture of blood agents and pharmaceutical products

SK Chemicals Qingdao Co., Ltd.
Ownership ratio 100.00%
Prepreg manufacturing

SK Chemicals Suzhou Co., Ltd.
Ownership ratio 100.00%
Polyester adhesives, small packaging for PETG

Initz Co., Ltd.
Ownership ratio 66.00%
Manufacture of synthetic resins and other plastic materials

SK Chemicals America, Inc.
Ownership ratio 100.00%
Wholesale business

JSI Co., Ltd.
Ownership ratio 56.03%
Epoxy resin manufacturing

Major Affiliated Companies

ENTIS Co., Ltd.
Ownership ratio 50.00%
Manufacturing business

Intervest
Ownership ratio 38.00%
Investments in and lending to new start-up businesses

TSK Water Co., Ltd.
Ownership ratio 25.00%
Maintenance and operation of environment-related infrastructure, design

Intervest New Growth Fund
Ownership ratio 30.00%
Investments in and lending to start-up businesses

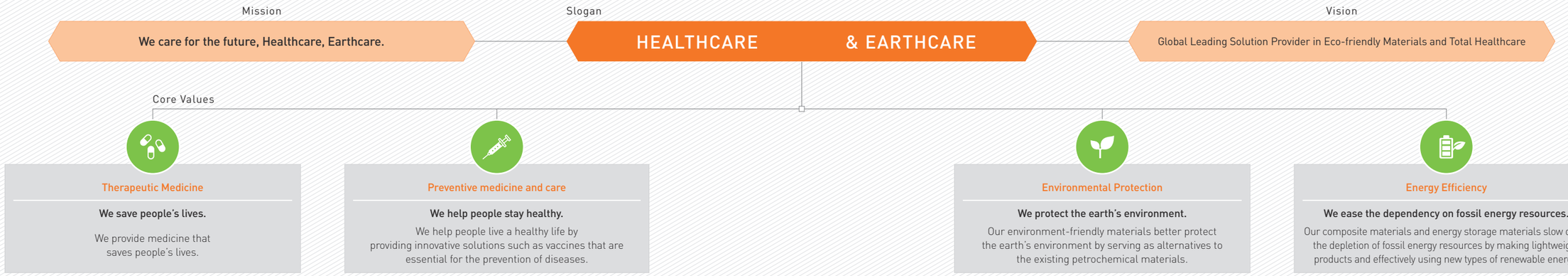
ST Green Energy Pte, Ltd
Ownership ratio 50.00%
Trading of sources of bio diesel and bio materials

SK E&C Co., Ltd.
Ownership ratio 28.25%
Construction, civil engineering, plant engineering

Company Overview

Mission & Vision

Our corporate mission of 'We care for the future, Healthcare, Earthcare'. includes elements of corporate social responsibility (CSR). Our vision of 'Global Leading Solution Provider in Eco-friendly Materials and Total Healthcare' indicates our belief that corporations and society are interdependent. With a firm belief in its mission and vision, SK Chemicals will remain devoted to achieving sustainable growth.



History

~ 2007

1969 · Sunkyong Fibers Co. was established

1989 · Life Science Research Center was established

1999 · SUNPLA®, a third-generation platinum anticancer drug was developed for the first time in the world (domestic new drug #1)

2001 · SK Chemicals Qingdao Co., Ltd. was established (SK chemicals local investment company in China)
· Eco-friendly and functional resin, SKYGREEN® was developed
· Dongshin Pharm. Co., Ltd. was acquired (vaccine and blood products business)

2002 · JOINS®, anti-arthritis drug, developed(new natural drug #1)

2006 · Biodiesel production technology was developed

2007 · Mvix®, an erectile dysfunction drug, was developed
· Bio venture In2Gen was merged

2008 - 2012

2008 · UBCARE Co., Ltd., a healthcare company, was taken

2009 · Biomass-containing polyester resin, ECOZEN®, was released

2010 · ECOPRIME®, a biodiesel brand, received a prize from the Minister at the Green Technology Award
· ECOZEN® won the prize for Korea's ten new technologies and the Silver Prize at the Korea Technology Award
· The Company was listed on the Dow Jones Sustainability Index(DJSI) Korea for the first time

2011 · ECOZEN® won a U.S. Food and Drug Administration(FDA) Certificate
· SK chemicals launched the world's first film-type erectile dysfunction drug, MVIX®S
· Headquarter(Eco Lab) obtained a green building certificate(LEED Platinum) and won a prize at the Korea Architectural Culture Awards

2012 · SK Chemicals won the Top Prize in the Chemical and Pharmaceutical Sector of the Green Rankings
· NBP601(hemophilia treatment) was selected as one of Korea's ten best new technologies and received a prize from the Minister of Knowledge Economy.
· Environment management website(skecoweb) opened

2013 - 2014

2013 · Andong(L HOUSE) plant obtained a green building certificate(LEED Gold)
· SK chemicals Polycyclohexylene Dimethylene Terephthalate(PCT) material was selected as one of Korea's ten best new technologies and received a prize from the minister
· SK chemicals established Initz Co., Ltd.(a joint venture company with Teijin Limited with regard to Polyphenylene Sulfide(PPS))
· ECOZEN® and SKYGREEN® obtained an eco-friendly C2C certificate

2014
· Joint development for vaccines is carried out with Sanofi Pasteur SA
· SK chemicals acquired approval for the commercial sale of a cell culture influenza vaccine for the first time in Korea
· Project for bio heavy oil(biodiesel) began
· Andong(L HOUSE) plant acquired KGMP(Korea Good Manufacturing Practice) approval for qualification
· 2014 Dow Jones Sustainability Index(DJSI) Korea - SK Chemicals was listed on the five consecutive years
· 2014 K Pharma Night – SK Chemicals received the Innovative Pharmaceutical Company Award
· 2014 Government Awards for Job Creation – received the Presidential Citation
· Ansan plant and Cheongju(S HOUSE) plant were integrated
· Initz and A Shulamn signed a contract for Polyphenylene Sulfide(PPS) supply and joint marketing
· Global Standards Management Awards – received the Grand Prize in the sustainability management report category

2015 ~

2015 · Rolled out SKYCELLFLU®, Korea's first cell-culture influenza vaccine
· Acquired approval for the commercial sale of the world's first cell-culture quadrivalent influenza vaccine
· Blood products business spun off into subsidiary SK Plasma Co., Ltd.
· Submitted application for commercial sale of NBP601 (hemophilia treatment) to U.S. Food and Drug Administration(FDA), EU European Medicines Agency(EMA)
· 2015 Dow Jones Sustainability Index(DJSI) Korea named SK Chemicals No. 1 in the chemicals category
· SKYCELLFLU® received the grand prize in 2015 Medical Korea's next-generation vaccine category

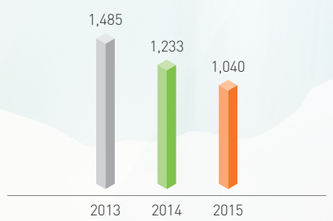
BUSINESS & PRODUCT

Our goal is to pursue environmentally friendly chemistry and life-protecting science, thereby helping humans and nature to coexist in harmony and remain sustainable. Our management philosophy as embodied in the slogan, 'Healthcare & Earthcare', is firmly based on our respect for life and our love of nature.

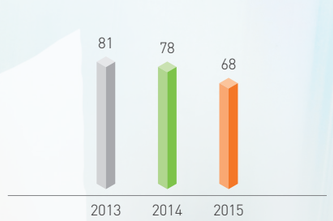
R&D Investments and Economic Performance

SK Chemicals has invested approximately KRW 76 billion per year on average over the last three years in order to reach its sales target of 2.4 trillion won by 2020. In 2015, SK Chemicals applied for 192 patents and registered 134 patents as part of our ongoing efforts to expand our intellectual property rights. We are also taking bold steps in utilizing Open Innovation, i.e. incorporating superior external technologies into our products and building a network with corporate customers in a bid to produce tangible results from our R&D initiatives. In addition, technological development remains one of our top priorities as we view technology as the foundation upon which we can compete globally.

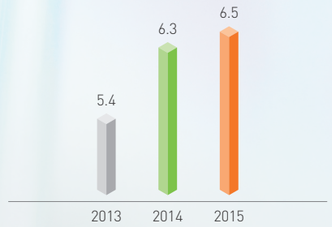
Sales
Unit : KRW billion



R&D cost
Unit : KRW billion



R&D cost to sales ratio
Unit : %



GREEN CHEMICALS BUSINESS

SK Chemicals is concentrating the resources and competencies of its chemicals business on realizing the vision of the Green Chemicals Business, SK Chemicals' chemicals division, to become a 'Total Solutions Provider of Environmentally-Friendly Materials'. In order to focus on environmentally friendly materials, SK Chemicals undertook a bold business restructuring plan under which its existing polyester textile and petrochemical businesses were reorganized, thus making polyester resins and fine chemistry the two new pillars of the company's business. Under the new business structure, high-performance materials and biomaterials, composite materials in the fine chemistry category, along with eco-friendly polyester resins, have been identified as the company's core products on which to concentrate its R&D efforts. Going forward, polyester resins will be consolidated into high-performance materials while IT materials will be newly added to the company's product line-up as part of the continuing efforts to diversify its business portfolio.

2016 Market Outlook

Oil prices are forecast to remain weak globally in 2016. The prolonged global trend of low oil prices continues to put pressure on chemical companies to sharpen their competitive edge further and implement differentiated production strategies so as to cope effectively with the changing external business environment and manage risks thoroughly amid increasing uncertainties. The Korean government has been actively supporting the growth of the biochemical industry since 2014, with the environment-friendly, high-performance chemical industry perceived as a new growth engine that can help deal with environmental issues and create new economic value. To this end, the government is pushing ahead with the plan to develop technologies required to advance the biochemical industry. The key to a successful chemical industry in the future is the ability to develop new materials and superior technologies including ergonomics and high performance, which can set it apart from the pack.

2016 Strategy and Goals

SK Chemicals is carrying out two strategic tasks it has selected to meet the 2016 goals: raising the competitiveness of existing businesses and successfully stabilizing new businesses.In order to secure stable flow of revenue from existing businesses, we are focusing our marketing campaigns on differentiated products such as environment-friendly, high-performance products, proactively developing new needs and uses of our products, and maximizing the operational efficiency of production facilities. In particular, we are currently developing new uses of super-engineering plastic Polyphenylene Sulfide(PPS) and striving to maximize its initial sales volume to ensure the successful commercialization of Polyphenylene Sulfide(PPS).

2015 Activities and Results

In 2015, SK Chemicals' Green Chemicals Business became Korea's first developer of Polyphenylene Sulfide(PPS) – a kind of super-engineering plastic – after spending 8 years on R&D. In November, the Polyphenylene Sulfide(PPS) plant in Ulsan began operation, ushering SK Chemicals into the global high-performance plastic market amid the rapidly growing demand.

01	02	03	04
Korea's first successful Polyphenylene Sulfide(PPS) developer and construction of Ulsan Polyphenylene Sulfide(PPS) plant	SK Chemicals invests KRW 94.2 billion to expand synthetic polyester production capacity	Successful R&D on electrolyte additives for secondary battery	Participation in NPE, a global plastic expo, and China Plus

Green Chemicals : Business Overview

Resin

SK Chemicals developed a high-performance material, SKYGREEN, in 2001 as the world second and commercialized a bio, transparent and heat-resistant polyester resin, ECOZEN as the world's first. ECOZEN which is a bio polyester resin and SKYGREEN which is developed by Polyethylene Terephthalate Glycol(PETG) are used in a variety of industries including consumer electronics. They are used in manufacture of food containers and cosmetic containers because they have a high heat resistance, transparency, chemical resistance, and are environmentally friendly without bispehnol-A. SK Chemicals is the only company in the world which succeeded in the commercialization in the world of a bio polyester resin, ECOZEN, which is a plastic containing copolyester based bio-components.

ECOZEN

Biomass-based Polyester Resin
ECOZEN offers a remedy for the weaknesses of petroleum-based plastic, lowers dependency on petroleum-based materials, and reduces GHG emissions. ECOZEN, which is transparent, durable and can resist heat up to 110℃, can be widely used in dishwashers, microwavable containers, and building materials. ECOZEN has received a Food Contact Notification(FCN) certification from the FDA of the U.S., is the first bioplastic to be approved by the Korea Biopackaging Association, and has obtained a safety and sanitation certification from the Japan Hygienic Olefin & Styrene Plastics Association(JHOSPA).


ECOZEN

SKYPET

PET Resin
SK Chemicals is Korea's first manufacturer of Polyethylene Terephthalate(PET) resin for bottles. Since the company earned the approval of the U.S. FDA in the early stage of the business, the product has been subsequently approved by global beverage companies, attesting to its high quality. Our superior quality has been the driving force behind our consistent efforts toward developing and producing Grade, a high value-added Polyethylene Terephthalate(PET) product.

SKYGREEN

High-Performance Eco-Friendly Material
Polyethylene Terephthalate Glycol(-PETG) is the brand of an eco-friendly, high value-added plastic material developed by SK Chemicals in 2001, making the company the world's second successful developer of the material. The material is used in a variety of industries for cosmetics containers, electronic parts, building materials, etc. We have been developing Polyethylene Terephthalate Glycol(PETG) into one of our core products.


SKYGREEN


SKYPET

Eco-Friendly Products Certification
SK Chemicals is committed to creating environmentally friendly products that protect the earth's environment and promote the health of mankind. Our plastic products do not discharge environmental hormones and are recyclable, thus benefitting both the earth and humankind. Our focus remains firmly on developing more environmentally-friendly materials. The environmentally friendly resins ECOZEN and SKYGREEN have both received the highest-grade certification(Gold grade) from an international C2C(Cradle to Cradle) certification body in the U.S.

High-Performance Materials

Polyphenylene Sulfide(PPS) is a kind of super-engineering plastic made without using chlorine, a toxic material. Polyphenylene Sulfide(PPS) is seeing growing demand from the electronics and automobile sectors because it is light and highly heat- and shock-resistant. SK Chemicals is the first successful Korean developer of Polycyclohexylene Dimethylene Terephthalate(PCT), a material that provides high heat resistance(260°C or higher), excellent thermal stability, superior reflectivity and light stability. These characteristics make Polycyclohexylene Dimethylene Terephthalate(PCT) a highly suitable material for the reflectors of LED lighting equipment.

SKYBON

Polyester Resin for Adhesives
SKYBON is widely used as a coating material for coils and cans due to its high flexibility and excellent adhesion. SKYBON contains no detectable amounts of environmental hormones, and is enjoying growing demand as an adhesive and coating resin in diverse fields. SK Chemicals established the subsidiary SK Chemicals Ltd., which produces and sells adhesive products, in Suzhou, China in 2005.


SKYBON


ECOTRAN


SKYPURA

ECOTRAN

World's First Chloride-Free Material, Super-Engineering Plastic
SK Chemicals and Teijin Limited, a global chemicals company, set up the joint venture Initz Co., Ltd. in 2013 to produce a super-engineering plastic, Polyphenylene Sulfide(PPS). Unlike other types of Polyphenylene Sulfide(PPS), ECOTRAN is completely chloride-free in all stages of production from the processing of raw materials through production to the finished products themselves. The strictly-controlled production process ensures that ECOTRAN, the world's first chloride-free Polyphenylene Sulfide(PPS), minimizes errors in precision and electronic equipment as a high-performance material, and remains environmentally-friendly. Ulsan plant operates a production line dedicated to ECOTRAN, and began mass producing it in 2016.

SKYPURA

PCT Material, Super-Engineering Plastic
SKYPURA, a Polycyclohexylene Dimethylene Terephthalate(PCT) material, provides excellent thermal stability, reflectivity, and light resistance, making it an ideal material for TV and LED reflectors. Its applications are further expanding into electric and electronic goods including SMT connectors. In recognition of its technological excellence, SK Chemicals was chosen as the recipient of a Korea Technology Award from the Ministry of Trade, Industry and Energy, and SKYPURA was listed among the ten best new technologies.

SKYTRA

Eco-Friendly, High-Performance Compound Product
SKYTRA, our compounding brand, is an eco-friendly, high-performance resin-based product that can cater to the varying needs of our customers. Its applications include automotive interiors and exteriors, civil engineering, electric and electronic appliances, and home appliances.


SKYTRA

Biomaterials

Biomaterials, fuels that are derived from biological sources, are becoming increasingly popular as an alternative to existing petrochemical materials such as plastics and chemicals, in light of the rapid depletion of fossil energy sources. The biomaterials industry is expanding quickly at an annual average rate of 10%, as consumers' demand for environmentally-friendly products continues to increase and governments in many countries are adopting policies to support the development of renewable materials. The market for biomaterials is expected to be worth around 80 trillion won in 2020.

Biodiesel

Environmentally-Friendly Alternative Energy

Biodiesel is an environmentally-friendly alternative energy(Methyl Ester) that is typically manufactured by the chemical reaction of vegetable oils or animal fats with methanol. SK Chemicals has developed its own independent biodiesel production process and is currently supplying a high-quality biodiesel, ECOPRIME, to major oil companies in Korea while expanding into bio heavy oil for use in power generation.

Environmentally-Friendly Biodiesel

77% or more of biodiesel gets decomposed

In natural condition for 28 days or longer

Absorbed back by plants

The carbon dioxide emitted during combustion

2.2 ton

Reduced CO_2 emissions per ton of biodiesel used

Bioplastic & Biochemicals

Environmentally-Friendly and Human Body-Friendly Products

Bioplastics and biochemicals are plastics and chemicals made by chemically or biologically processing renewable biomass, including plant-derived resources, as raw materials. SK Chemicals has selected bioplastic and biochemical products that are friendly both to the environment and the human body as products for future growth engines and is stepping up its efforts to develop and commercialize such products.

Biodiesel

Bioplastic

Composite Materials

SK Chemicals is producing Prepreg, a composite material that combines reinforced fiber and carbon fiber. Carbon fiber, which is lighter than aluminum and stronger than steel, has been used in the construction of spaceships and aircraft. It is also drawing attention as an alternative material that can be used to make lightweight vehicles and blades of wind power generators. SK Chemicals and Mitsubishi Rayon Co., Ltd. strategically collaborated on the supply of raw materials in 2012, and SK Chemicals plans to sell 74.7 billion won worth of composite materials, including Prepreg, in 2016.

Vacuette Solvents

High-Purity Solvents

SKYFLEX

SKYFLEX

Prepreg, Carbon Fiber

Prepreg is widely used to make parts for sports and leisure products, including golf clubs, fishing rods and bicycles, and parts for high-tech products such as aircraft, automobiles and industrial robots. Recently, it has also been used as a material for the blades of wind power generators and as a reinforcing material for concrete structures.

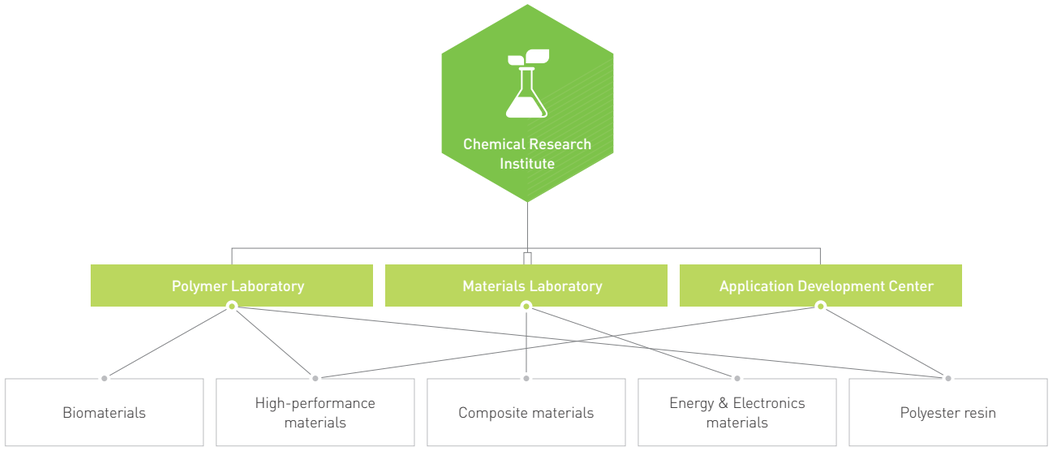
High-Purity Solvents / Display Materials / Precursors for Semiconductors

SK Chemicals has developed high-purity solvents that are used in equipment analysis, the synthesis of ultra-precision chemical products, and in the electronics and biotechnology industries. These products were developed independently and also in a technological partnership with Honeywell International, Inc. of the U.S.. These solvents are sold in the U.S., China and other parts of the world as well as in Korea. In addition, our R&D initiatives include the development of organic synthesizing technology-based OLED(Organic Light-Emitting Diode) materials, materials for displays, including LCDs and PDPs, and precursors for semiconductors.

Green Chemicals : R&D

R&D Strategies

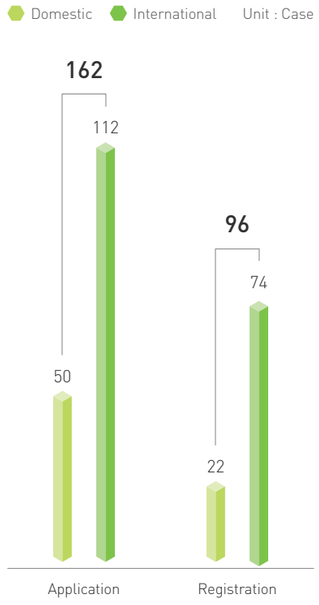
Our Chemical Research Institute plays a crucial role in developing new growth engines through its R&D activities. Key research projects involve display materials using organic synthesis technology, materials for semiconductors, and electrolytes for secondary batteries. The institute plans to concentrate its efforts on creating a bio purification platform for the development of new materials.



Major R&D Achievements

- Polyethylene Naphthalate(PEN) resin
- Biodegradable aliphatic polyester resin
- Polyester adhesive
- Polyethylene Terephthalate(PET) resin for bottles
- ECOZEN®/SKYGREEN® acquired the eco-friendly C2C certification
- ECOTRAN®, an eco-friendly super-engineering, Polyphenylene Sulfide(PPS)
- ECOZEN®, an eco-friendly, transparent, heat-resistant co-polyester, earned FCN certification from the FDA
- Polycyclohexylene Dimethylene Terephthalate(PCT), a high-performance super-engineering plastic
- Eco-friendly non-bisphenol A toner resin
- Composite material part that binds insulated panels for LNG carriers
- Super-cap electrolyte
- Display light-absorbent
- Biodiesel production technology
- Obtained a license for Organic Acid Technology(OAT), an engine-coolant technology
- Prepreg, a high-heat-resistant
- Liquid-type photo-polymer for flexo printing plates
- Organic semiconductor material for electronic materials
- Trimellitic Anhydride(TMA) manufacturing technology
- Eco-friendly, water-soluble Overprint Varnish(OPV)
- New toner binder
- Acquired the technology for the commercial production of CycloHexane DiMethanol(CHDM)
- SKYGREEN®, an eco-friendly, high-performance, high heat-resistant resin for profiles

Current Status of Patent Application / Registration by Chemical Research Institute in 2015



Major R&D Achievements(2015)

Process technology that introduces multiple raw materials

With the use of splitting equipment, process technology that introduces multiple raw materials has been developed. This is expected to make ECOPRIME even more competitive in the market. The demand for ECOPRIME is increasing after Renewable Fuel Standards(RFS) were introduced in 2015.

Development of differentiated composite materials

Our R&D focuses on developing high value-added materials such as composite materials for automobiles and wind power generation. All of our composite materials for shipbuilding and marine parts have passed performance tests and acquired certifications from our customers, and we are developing new applications of these materials in other industries.

Development and commercialization of eco-friendly, high-performance materials

SK Chemicals developed a polyester resin used as coating material for the inside of cans in response to stricter regulations on bisphenol A, and it is expanding the scope of its applications. Efforts to develop and commercialize eco-friendly, water-based emulsion polyester are underway to cope with tougher regulations on Volatile Organic Compounds(VOC) reduction.

High-performance electrolyte additive for secondary battery

SK Chemicals developed a high-performance electrolyte additive for secondary battery, which has 27% higher capacity recovery and 20% lower internal resistance. The additive is Korea's first successful case in the development of a high-performance additive, and SK Chemicals plans to grow this business into a new growth engine by continuing improvements.

Building Completion and Operation of Fabrication Lab

In March 2016, the Molding & Processing Lab, operating under the Chemical Research Institute, was expanded and relocated to Dongtan. This refurbished lab will play a leading role in advancing our resin-processing technology by 2020, as well as in conducting research projects optimized for the use of the super-engineering plastic, Polyphenylene Sulfide(PPS), thereby strengthening the competitiveness of our specialty plastic business and providing the momentum for new businesses. It is critical to develop as many uses as possible for high value-added specialty plastic materials, through R&D efforts in areas such as compounding and processing, and post-processing including the analysis of physical properties.

LIFE SCIENCE BUSINESS

Since developing Korea's first new medicine, 'SUNPLA', in 1999, SK Chemicals' Life Science Business has developed three new medicines, and has focused on R&D and investment in sectors sucs as 'Pharma', 'Vaccine' and 'Plasma' to realize its vision of becoming a 'Global Total Healthcare Solution Provider'. The company's pharmaceutical sector accounts for a large amount of market share in sectors with products such as an independently developed film-type erectile dysfunction drug and natural medicine for arthritis. The company also exports technology for hemophilia medicine as well as a patch-type medicine for dementia based on its remarkable R&D capabilities. SK Chemicals has selected vaccines as the next-generation growth engine and rolled out its vaccine business in 2006. To this end, significantly large amounts of money have been invested in the research and development of vaccines, culminating in the construction of a cutting-edge vaccine plant. We are working diligently to further strengthen our expertise, coupled with intensive investments to develop bio pharmaceutical products, including vaccines and plasma, by building upon the existing pharmaceutical technology that we have developed over the years.

Prospect for the Market Condition in 2016

The domestic pharmaceutical sector is expected to grow at a slow pace, given the government's control of drug prices and regulations, and the implementation of a stricter compliance program. To mitigate the negative impact of these factors, domestic pharmaceutical companies are anticipated to enlarge their product portfolios through business alliances and accelerate their efforts to tap into overseas markets. Fueled by the exceptionally large volume of technology exports by domestic pharmaceutical companies in 2015, R&D investments are likely to increase, led by the industry leaders in 2016. Another industry trend is expected to emerge with the diversification of business portfolios. This global R&D trend in the bio drugs sector is expected to continue in 2016, and Korean pharmaceutical companies are expected to show strong performance.

Strategic Direction and Goals for 2016

The forecast for the pharmaceutical industry is accelerating changes in its business environment in 2016. In an effort to proactively cope with these changes, the Life Science Business will further enhance the expertise and efficiency of individual business units, including pharmaceuticals, vaccines and plasma, so as to make each of these individual units more competitive and sophisticated. Our efforts will be concentrated on conducting successful marketing campaigns for the world's first quadrivalent cell culture influenza vaccine, which was approved for sale in December 2015, and on acquiring approval for the sale of follow-up products.

Activities and Performances for 2015

The Life Science Business actively engaged in building a stronger infrastructure for the pharmaceutical segment and in sharpening the competitive edge of its vaccine and plasma units, building on the consistent investments and R&D efforts that have been channeled into these units.

01	02	03	04
Successful marketing of Korea's first trivalent cell culture influenza vaccine	Acquisition of marketing approval for the world's first quadrivalent cell culture influenza vaccine	Spin-off of the plasma business, Establishment of SK Plasma Construction of a plasma plant begun	Hemophilia treatment New biomedicine 'NBP601' Applications for marketing approval filed with the FDA and EMA

Life Science: Business Overview

Pharma

SK Chemicals opened a new chapter in the synthetic drug field in 1999 by the successful production of SUNPLA, Korea's first new drug that was internationally recognized. The company went on to launch JOINS, Korea's first botanical drug, in 2002, Mvix®, the most effective erectile dysfunction treatment in the world in 2007, and Mvix-S®, the world's first film-type erectile dysfunction treatment in 2011. R&D efforts are currently under way to develop new drugs for fibrosis and endometriosis. SK Chemicals' pharmaceutical business possesses superior technology for a drug delivery system(DDS) that effectively transports an adequate amount of medicine. The company also started sales of TRAST, a patch-type arthritis drug that uses our superior DDS technology, and has now grown as a leading brand in Korea. 'SID710', the world' first dementia patch-type generic medicine has been approved for marketing in Europe, and is being exported to a growing number of countries, attesting to our globally competitive pharmaceutical technology.

MVIX® / MVIX-S®

No. 1 in International Index of Erectile Function/
World's First Film-Type Erectile Dysfunction Treatment
MVIX, the erectile dysfunction treatment developed by SK Chemicals, boasts an unsurpassed effect measured by the International Index of Erectile Function. Our product portfolio was further expanded with the offering of MVIX, the world's first film-type erectile dysfunction treatment in 2012, and MVIX-S, a high-dose film-type treatment in 2012. MVIX-S has been positively received by consumers because it is thin and light, thus making it highly portable and easy to use.

JOINS

First Domestically Developed Botanical Drug
JOINS is the first natural drug developed in Korea. Clinical tests conducted by five major general hospitals, including Seoul National University Hospital, found that it exhibited the same levels of anti-inflammatory and analgesic effects as other drugs already available in the market while causing fewer side effects. In addition to its anti-inflammatory and analgesic effects, JOINS demonstrated a cartilage-protecting effect, and thus is considered a medicine that can fundamentally treat arthritis.

JOINS

TRAST

Potent Knee Arthritis Treatment Effect
TRAST minimizes the side effects often associated with drugs taken orally, while maximizing the healing effects because it is applied directly to the affected area of the arthritis patient. It delivers Piroxicam, an anti-inflammatory and analgesic drug, directly to the affected area of the body at a consistent concentration using the trans-dermal drug delivery system(TDDS). The patch remains effective for 48 hours.

TRAST

GINEXIN-F

MVIX-S

GINEXIN-F

No. 1 Gingko Leaf-Derived Drug for Blood Circulation
GINEXIN-F is a drug for improvement of blood circulation developed by our Life Science Research Institute using our patented technology. The drug is made by concentrating only the most effective medicinal ingredients extracted from gingko leaves so as to maximize the effects. The brand recorded over 10.0 billion won in sales in the first year after its launch, and has maintained solid market dominance as the No. 1 brand in the domestic market for gingko leaf-derived drugs for blood circulation. It is also sold in major global markets including the U.S., the EU, Saudi Arabia and Turkey.

NBP601

New Biomedicine for Hemophilia Using Genetic Recombination
NBP601, the first domestically developed biomedicine for hemophilia treatment, was developed by SK Chemicals using genetic recombination and licensed out to CSL Limited in 2009. The drug improves the stability of factor VIII associated with type 'A' hemophilia. SK Chemicals has now completed Clinical Phase 3 for the global market and has filed applications for sales permission by the U.S. FDA and EU EMA.

Vaccine

SK Chemicals signed an agreement with Sanofi Pasteur SA for joint R&D and the sale of next-generation pneumonia vaccines, a testimony to its technological excellence, and is the first developer of a cell culture-derived trivalent influenza vaccine in Korea. The company also developed the world's first quadrivalent influenza vaccine using cell culture technology in 2015, and has more premium vaccine development projects smoothly under way. SK Chemicals is firmly committed to advancing the national medical industry and establishing Korea's sovereignty over vaccines by building world-class vaccine production facilities and commercializing premium vaccines.

SKYCELLFLU

First Domestically-Developed Cell Culture-Derived Influenza Vaccine
SKYCELLFLU is the first indigenous influenza vaccine for adults and the world's first influenza vaccine for children to be developed using cell culture technology. Since the vaccine is made from animal cells, its production takes only 2 to 3 months, and a stable supply of the vaccine is possible regardless of crises such as outbreaks of bird flu.

DPT TRI

Pertussis and Tetanus Vaccine
DPT TRI is a pre-filled syringe-type vaccine for pertussis and tetanus, which reduces the required number of injections. It also ensures the accuracy of the injection dosage, as well as lowering the risk of contamination by microorganisms. The possibility of hypersensitive reactions has been remarkably lowered, thus delivering greatly enhanced medical safety.

DPT TRI

TD Vaccine

Absorbed Tetanus Toxoid for Adults
TD Vaccine is a suspension-type preventive vaccine for youth and adults. It uses aluminum hydroxide as the base, mixed with tetanus-diphtheria combined toxoid.

TD Vaccine

HEPAMUN

Hepatitis B Vaccine Using Genetic Recombination
HEPAMUN is a hepatitis B vaccine prepared from yeast by using the latest genetic-reengineering technology and separating the surface antigen from the hepatitis B virus. HEPMUN is safe because it does not use anything derived from a human source and therefore entails no risk of diseases transmitted through blood.

HEPAMUN

SKYCELLFLU(Trivalent cell culture influenza vaccine)
Choice 'Korea's Highest Brand in the Influenza Vaccine Category' and Wins 'Medical Korea Next-Generation Vaccine Award'
SKYCELLFLU was choosed Korea's Highest Brand in the Category of Influenza Vaccines' and won 'Medical Korea Next-Generation Vaccine Award' in 2015. SKYCELLFLU is Korea's first influenza vaccine to be developed using cell culture technology and approved for marketing. It is the third commercialized, cell culture influenza vaccine for adults in the world and the world's first such vaccine for youth and children aged between 6 months and 18 years.

Plasma

SK Plasma Co., Ltd. was launched as a subsidiary of SK Chemicals in 2015 to specialize in the plasma business, and improve the technologies involved in the production of plasma derivatives. A new plasma plant is being built in Andong City to help SK Chemicals' Life Science Business gain capabilities reaching beyond the domestic market and competing with multinational corporations in the global market. SK Plasma is planning on implementing new tasks to increase profitability by taking advantage of its plasma business expertise, its proprietary original technologies, and its competitive marketing strategies

HEPABULIN SN

Human Hepatitis B Immunoglobulin Drug
SK Plasma released IV HEPABULIN SN, an intravenous hepatitis B drug for liver transplant patients, in 2015. The newly released IV HEPABULIN SN is characterized by direct intravenous administration and a virus elimination process for increased safety. In addition, Clinical Test 3 was conducted at multiple centers for greater credibility.

HEPABULIN SN

ALBUMIN

Human Serum ALBUMIN
ALBUMIN is used to treat the loss of ALBUMIN caused by burns or new syndromes, and hypoalbuminemia and hemorrhagic shock caused by defective ALBUMIN synthesis resulting from liver cirrhosis and other medical conditions.

ALBUMIN

LIV-GAMMA SN

High-Purity, IgG-Containing Human Globulin
LIV-GAMMA SN is administered by intravenous drip infusion or intravenous injection to treat or prevent agammaglobulincmia, dysgammaglobulinemia, idiopathic thrombocytopenic purpura(ITP), and acute idiopathic polyneuritis, and complications associated with coronary artery problems.

LIV-GAMMA SN

ANTITHROMBIN III

Prevention and Treatment of ANTITHROMBIN III, ANTITHROMBIN III Human Deficiency
ANTITHROMBIN III is used to prevent and treat thromboembolism caused by congenital ANTITHROMBIN II deficiency, acute liver failure from acquired ANTITHROMBIN III deficiency, consumption coagulopathy and hemodialysis.

ANTITHROMBIN III

SKYCELLFLU

Tetabulin SN

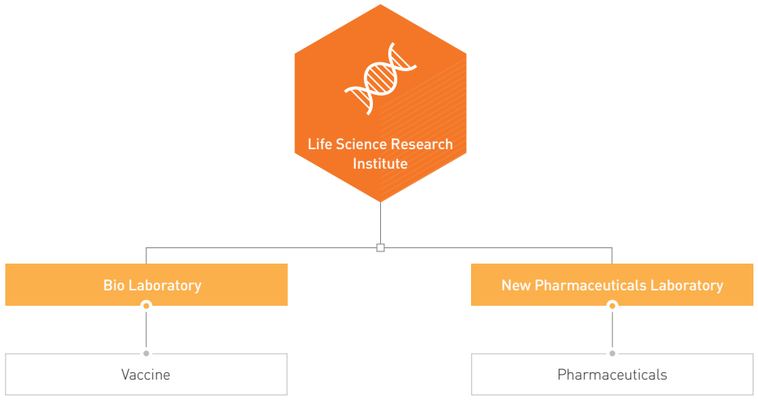
Tetabulin SN

Anti-tetanus Immunoglobulin
Tetabulin is used to prevent tetanus by intramuscular injection in the early incubation stage of tetanus or to relieve the symptoms following the contraction of tetanus.

Life Science: R&D

R&D Strategy

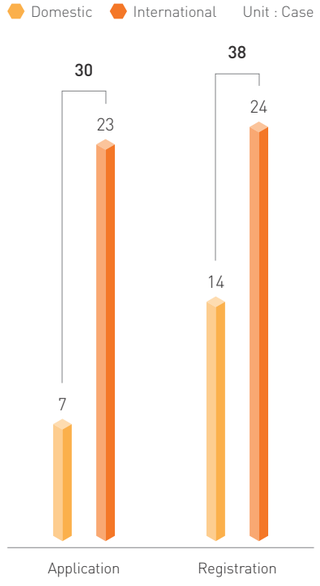
Under its mission of 'We care for the future, Healthcare, Earthcare', SK Chemicals' Life Science Research Institute is continuously striving to achieve a competitive edge in the R&D sector. SK Chemicals will establish a wide product portfolio by making continuous investments in pharmaceuticals, vaccines and plasma, which will be a pivotal growth engine in the future life science business.



Major R&D Achievements

- Acquiring first domestic marketing approval for SKYCELLFLU®, a cell culture-derived influenza vaccine
- Acquiring Phase III INF approval for quadrivalent influenza vaccine using cell culture technology
- Contract signed with Sanofi for the development and supply of a next-generation pneumonia vaccine
- Launch of SID710®(a patch-type dementia drug) in the European market
- Contract signed with the International Vaccine Institute for the joint development of a typhoid conjugate vaccine
- Launch of marketing of Promac®, a gastritis drug(granule and tablet)
- Acquiring marketing approval for SID530® (Docetaxel injection) in Europe
- Completion of clinical tests for NBP601® (a Hemophilia treatment using a recombinant DNA technique)
- Release of Montefree ODF® (Montelukast ODF; improved new drug in a new type)
- Release of MVIX-S, ODF® (Mirodenafil ODF; improved new drug in a new type)
- Release of the anticoagulant ANTITHROBMIN®
- Release of the hyperlipemia Esrotine®
- Release of the antithrombotic Renexin tab®
- Contract to sell NBP601® to CSL of Australia
- Release of Joins®, the first domestically developed botanical drug for knee arthritis
- Release of Nexad tab®, a drug for hypertension
- Release of Skad tab®, a drug for hypertension
- Release of Pranair®, a drug for asthma
- Release of MVIX®, an erectile dysfunction drug
- Development of SUNPLA Injection®, the first domestically developed new drug and a third-generation platinum-based chemotherapy
- Development of Ginexin®, a blood circulation-improving drug derived from gingko leaves
- Development of Trast®, an anti-inflammatory and analgesic drug
- Korea's first exporter of the ulcer drug Omed®

Current Status of Patent Application / Registration by Life Science Research Institute in 2015



Major R&D Achievements(2015)

SK Chemicals released cell culture influenza vaccine
SK Chemicals released SKYCELLFLU, developed with the next-generation vaccine production technology using animal cell culture. A accumulated sales orders reached 3.60 million doses in the first year of sales itself.

SKYCELLFLU has been recognized for its effectiveness and safety in Clinical Phase 3
The results of the Clinical Phase 3 were published in 'Vaccine', one of the world's most authoritative international journals, and SKYCELLFLU was found to be effective and safe, thus gaining international recognition for its specialty and safety.

Marketing approval acquired for SKYCELLFLU Quadrivalent
SKYCELLFLU Quadrivalent, a previously trivalent vaccine with added hepatitis B virus, offers effective prevention against influenza and responds swiftly to mutant forms of influenza.

SK Chemicals released Intravenous Hepabulin for the prevention of hepatitis B recurrence
SK Chemicals conducted Clinical Phase 3 in six hospitals before releasing Intravenous Hepabulin, which prevents the recurrence of hepatitis B.

R&D Task

Category	Task name	Application	Development stage	Notes
Bio	NBP601	Medicine for hemophilia	Approval/permission obtained(US)	Exporting technology
	NBP604	Medicine for hemophilia	Pre-clinical	-
	NBP606	Preventing pneumococcus	Approval for treatment of adults obtained/ Clinical Phase 3 for approval of use in treatment of children	-
	NBP607	Preventing influenza	Sale	Application of cell culture technology for the first time in Korea
	NBP607-QIV	Preventing influenza	Completed to give permission	World's first quadrivalent influenza vaccine using cell culture technology
	NBP608	Preventing shingles	Clinical Phase 3	-
		Preventing chicken pox	Clinical Phase 2 and 3	-
	NBP602	Preventing and medicine for hepatitis B	Released	Transfered to SK Plasma
	NBP613	Preventing pediatric enteritis	Clinical Phase 1	-
	NBP615	Preventing cervical cancer	Clinical Phase 1	-
	NBP618	Typhoid vaccine	Pre-clinical	-
Compound	THVD201	Irritable bladder syndrome	Clinical Phase 3	-
	NCE403	Endometriosis	Clinical Phase 1	-
	NCE406	Diabetes treatment	Pre-clinical	-
	SID710	Dementia treatment	Sale	Launching the first generic in Europe Completing technology export in the U.S.(developing)
Natural ingredients	SID132	Joint treatment	Clinical Phase 3	-
	SID142	Chronic arterial occlusion treatment	Clinical Phase 1	-

CORE REPORTING ASPECTS OF SUSTAINABILITY MANAGEMENT

01
Core Reporting Aspects
–
Fostering Transparent Ethics Management

02
Core Reporting Aspects
–
Operating Safe and Healthy Plants

03
Core Reporting Aspects
–
Establishing an Improved Corporate Culture

Stakeholder Engagement and Materiality Test

Determination of Stakeholders

SK Chemicals defines 5 groups of key stakeholders: shareholders & investors, customers, employees, partners, and government and local communities. We operate communication channels with each group of these stakeholders based on the characteristics of the group and its connectivity to our business.

Communication with Stakeholders

We run a website(skecoweb) for environmental management through which we collect the opinions of our stakeholders and conduct surveys as part of our efforts to encourage our stakeholders to engage and communicate with us. All the opinions and information gathered in this way are shared, reported and managed through various channels including our sustainability management reports.

Stakeholders of SK Chemicals

Shareholders & Investors	Customers	Employees	Business partners	Local community / government
Participating in the strategic decision-making process regarding business	**Surveying customer feedback for products and services**	**Conducting a reward system for recruitment and fostering the talent and enhancing welfare and benefits**	**Seeking shared growth with partners for mutual benefits**	**Engaging in developing the local community as well as business led by the government and local government**
· Investor relations(IR) · General shareholders' meetings · Business report · Annual report	· Process for addressing customer grievances	· Labor-management consultative body · In-company broadcasting · Newsletter · Survey for employees · Survey for satisfaction	· Meetings with partners · Education to reinforce partners' capability · Group SK Win-win Growth Academy · CEO seminars · MBA for win-win growth	· Regional consultative body · Voluntary work group for the local community · Government meetings

Materiality Test Process

SK Chemicals' material issues and core reporting aspects regarding sustainability management were drawn through the materiality test process. A pool of sustainability management issues has been created based on a review of the global standards and guidelines, and analysis of the external environment and management issues, among others. For the materiality test, employees were surveyed and opinions were gathered from experts. In addition, we assessed the impact on our businesses and connectivity with stakeholders.

STEP 01 Listing 14 main issues of sustainable management identify the main issues

Confirming internal and external issues of sustainability management

- Review of global standards and guidelines (GRI G4, ISO26000, UNGC)
- Industry-specific indexes(DJSI)
- Media surveys, benchmarking
- Review of internal issues of sustainable management

STEP 02 Implementing the materiality test

Business impact	Connectivity with stakeholders
· Direct & indirect financial impacts · Connectivity to strategic goals	· Industrial benchmarking(Peer benchmarking) · Media research · Social norms and standards

STEP 03 Drawing 3 material issues

Drawing 3 material issues by reviewing the result of the materiality test, management strategies and key business activities

STEP 04 Reporting performances of sustainability management in each core reporting aspect

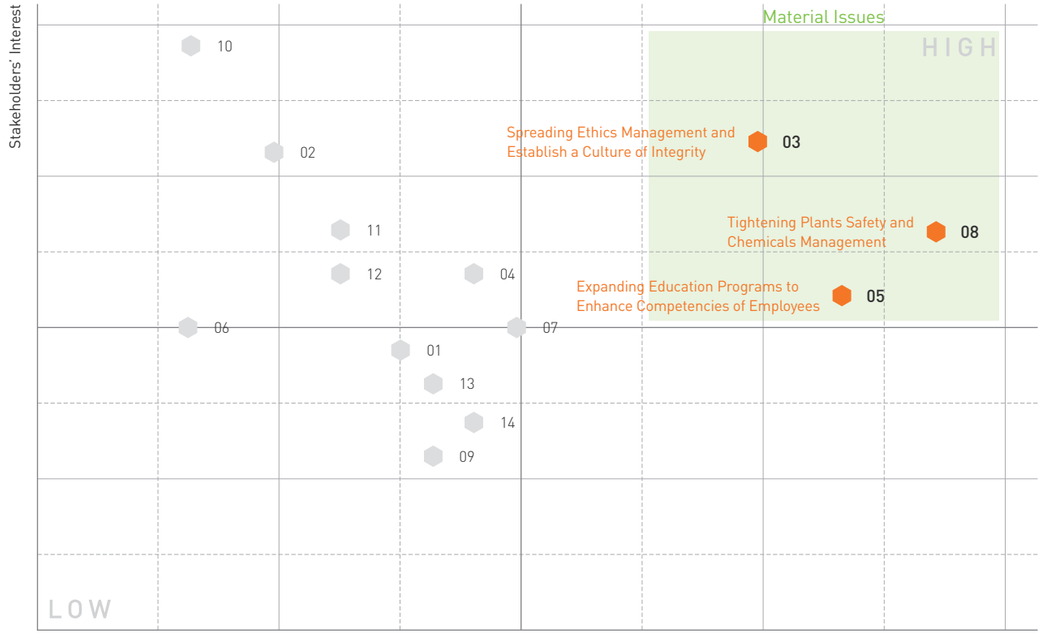
Organizing the core reporting aspects for each of the three material issues and reporting the performances and major management items by core reporting aspect

STEP 05 Setting performance indicators for sustainability management and incorporate strategic goals

- Setting KPIs to manage long-term performances
- Creating a sustainability management monitoring system
- Dealing with external evaluation of sustainability management

Result of the Materiality Test

Finally, three material issues were chosen out of the fourteen main issues of sustainability management that were identified for the materiality test, based on a broad review of comprehensiveness and responsiveness. The core reporting aspects were organized for the selected three material issues. The report explains opportunities and threats, and the materiality to business and society of the respective core reporting aspects, and presents the direction, activities and future plans for specific topics that SK Chemicals has set in order to respond to the issues.



Sustainability Material Issues and Core Reporting Aspects

No.	Material Issues	Core Reporting Aspects	Page no
03	Spreading Ethics Management and Establish a Culture of Integrity	Fostering Transparent Ethics Management	30 - 35
08	Tightening Plants Safety and Chemicals Management	Operating Safe and Healthy Plants	36 - 41
05	Expanding Education Programs to Enhance Competencies of Employees	Establishing an Improved Corporate Culture	42 - 49

Other Sustainability Main Issues

No.	Main Issues	No.	Main Issues
01	Development of new growth engines and expansion of global market share	10	Prevention of environmental pollution and conservation of resources
02	Engagement in and development of the local community	11	Use of new renewable energy sources and pursuit of greater energy efficiency
04	Shared growth, support for, and evaluation of partners	12	Reducing GHG(GreenHouse Gas) emissions
06	Creating jobs and employment stability	13	Guarantee of quality and safety of products
07	Pursuit of sound life-work balance and employee welfare	14	Customer satisfaction and addressing customer grievances
09	Efficient utilization of raw materials		

Core Reporting Aspect. 01

Fostering Transparent Ethics Management

A Researcher in Life Science Research Institute

- Demand greater transparency in our corporate activities in line with global standards and get involved in social issues more actively
- Tighten the rules on compliance management both at home and abroad
- Expand the application of international guidelines on the quality design and management of pharmaceuticals

Material Issue

Spreading Ethics Management and Establish a Culture of Integrity

Opportunity Component

- Ensure the company's sustainability by internalizing compliance management.
- Improve quality and competitiveness through quality management and compliance in accordance with global standards

Risk Component

- Tarnishing of corporate image in the event of violations of the ethical rules and employees' unethical behavior
- Various ethical risks exist in connection with the research, production and disposal of pharmaceutical products

Business Importance

- Review the legal risks before setting strategies and implementing improvement measures
- Raise product competitiveness in the global market through strict quality management

Social Importance

- Contribute to the spread of a culture of ethics and integrity by running a variety of compliance programs
- Increase trust in the company by enhancing product safety and liability

Core Aspect

Fostering Transparent Ethics Management

- Promoting Ethical System and Culture
- Providing Safe and Reliable Pharmaceuticals

Promises and goals for Fostering Transparent Ethics Management

We recognize that ethics management, as an indispensable element for ensuring corporate sustainability amid the rapidly changing business environment, is a core management resource and a pillar of the company's competitiveness. In recognition of this, we will continuously promote employees' awareness of compliance, thus conducting fair trade-related education and distributing fair trade guidelines to them that does not violate the antitrust laws when performing their tasks. In addition, we also plan to create compliance programs tailored to the marketing activities of our Life Science Business, taking into consideration the characteristics and circumstances of the pharmaceutical industry. We will reinforce ethical management based on business principles that force employees to observe laws and ethics and promote a fair and well intentioned competition.

Promoting Ethical System and Culture

Direction in Promoting Ethical System and Culture

In order to promote a fair and transparent ethical system and culture, we implement a specific code of conduct for employees as the criteria for corporate ethics, including the SKMS code of practice, code of ethics and code of conduct. By newly launching the ethical management sector, the company has reinforced executive ability and carried out ethical management by operating the development for supporting autonomous responsible management in charge of ethical consultation and handling relevant reports. We have put in place the 'Compliance Program' to encourage and foster fair and free competition. Meanwhile, the staff of our fair trade-related teams will review a checklist. Whenever they detect potential legal violations they will work closely with other employees in charge of such matters in order to deal with them. As such, we are actively operating an internal monitoring system.

Operating Ethical Management Group

We have formed a self-correction committee that reports directly to the CEO. The committee is chaired by the Director of autonomous responsible management support team, while the leaders of the HR team, accounting team, procurement team, and legal affairs teams and other major teams in each business line serve as its permanent members. In addition, both the Green Chemicals Business and Life Science business established the Compliance team in January, 2016 so as to strengthen ethics management activities.

Composition of the Self-Regulation Committee

Compliance Support Manager

The board of directors appointed the head of the Ethical Management Department as the legal compliance support manager, and the legal compliance support system is run in connection with the Compliance Program. The legal compliance support manager is responsible for educating employees about the Compliance Program and monitoring compliance so as to encourage employees to voluntarily comply with the laws and regulations. The manager's job also includes drafting compliance standards, the highest-level rules governing compliance activities, which are then passed and implemented pursuant to the resolution by the board of directors. The manager's responsibilities also include providing compliance education, checking whether or not compliance standards are met, and reporting the results to the board once every year.

Distribution of Fair Trade Handbook

A new fair trade handbook has been published and distributed to all employees so that they can better comply with domestic and overseas anti-corruption laws and regulations, including the Foreign Corrupt Practices Act(FCPA) of the U.S. and the Bribery Act of the U.K., and conduct their day-to-day work in accordance with the highest legal and ethical standards. All employees were given a handbook on collective corruption behavior, which has been updated to reflect amendments to the Fair Trade Act.

Process for Compliance Assistance Activities

Prevention

- Providing regular advise
- Supporting major projects
- Education for legal compliance

Monitoring

- Checking whether employees comply with the standard for legal compliance/ observing overall legislation
- Examining major points regarding compliance with legal risks

Post Management

- Analyzing results of activities for legal compliance control
- Implementing education programs for compliance

Education for Fair Trade

Each year, we conduct fair trade education for our employees as part of our efforts to promote their awareness of voluntary compliance. Employees working at the Andong(L HOUSE) plant, which was newly established in 2015, received education on how to protect trade secrets and avoid infringements of trade secrets. In addition, all employees are kept informed on any new developments regarding fair trade, as well as enactments of or amendments to the relevant laws and regulations as they arise.

Education Program	Content	Participants
On-site education at Andong(L HOUSE) plant	Protection of trade secrets and ban on infringement of trade secrets	Thirty employees from the factory's Management Support Department of Andong(L HOUSE) plant
Life Science Business Seminar	Issues to be considered when discussing business cooperation with global pharmaceutical companies	Twenty-nine employees from the HQ
SK Fair Trade Workshop	General issues on fair trade	Two employees from the Compliance Support Group
Professional Development Program for Fair Trade Staff	Corrupt collective behavior, general unfair trade practices	One member of the fair trade staff
Life Science Business Fair Trade Handbook Education	Corrupt collective behavior, general unfair trade activities	One member of the fair trade staff
Supply Fair Trade-Related Information	Provision of updates on fair trade-related laws and other information on fair trade in general to all employees via the fair trade bulletin board	

Stronger Protection of Personal Information

In principle, SK Chemicals does not collect sensitive information and unique identification information according to the relevant laws in order to eliminate potential leakages and infringements of personal information. In the same context, all of the resident registration numbers of our customers have been deleted entirely from our IT systems and other systems. Effective as of 2015, a separate consent form on the collection, use, viewing, retention and provision of personal information must be obtained from the customers in order to enter into a business deal.

Self-Monitoring of Reported Violations of Ethics and Compliance

Only two violations of the ethics and compliance standards were reported in 2015. The cases were properly handled with appropriate responses and by taking corrective actions. The self-monitoring program detected no violations in 2015, and SK Chemicals strived to promote a sound corporate culture and fulfill its social responsibility by exerting self-improving efforts in the area of ethics management.

Providing Safe and Reliable Pharmaceuticals

Direction in Providing Safe and Reliable Pharmaceuticals

We respect the rights of our stakeholders in connection with the pharmaceuticals that they use, and pay close attention to what they have to say while closely managing any risk factors that our clinical tests may entail at each phase in order to minimize the negative impact on the environment. We have raised the level of clinical testing with top-level domestic personnel in clinical tests and, we have monitored to improve the safety of our products by observing the laws and regulations at home and abroad.

Compliance with Laws and Regulations on Clinical Tests

SK Chemicals complies with the laws and regulations at home and abroad, including the Good Clinical Practice(GCP) and Investigational New Drug(IND) standards, and develops safe products through responsible clinical tests. In order to raise the quality and safety of our pharmaceutical products, we work closely with domestic and overseas clinical test centers and Contract Research Organizations(CRO).

Minimum Animal Tests

We actively address any ethical issues that may arise in the process of conducting animal tests. Specifically, we try to minimize suffering of animals while performing tests to assess the effectiveness and toxicity of relevant materials prior to a clinical test, by providing regular education and strictly following the laws and regulations. To that end, our Life Science Research Institute set up an animal testing ethics committee that consists of two external and three internal members. The committee reviews the animal test plans twice a year in order to find ways of minimizing animals' pain and suffering. The details of our animal tests are reported to the Ministry of Food and Drug Safety and the Animal and Plant Quarantine Agency twice a year.

Animal Tests at Life Science Research Institute

Post-Marketing Surveillance for Safety and Effectiveness

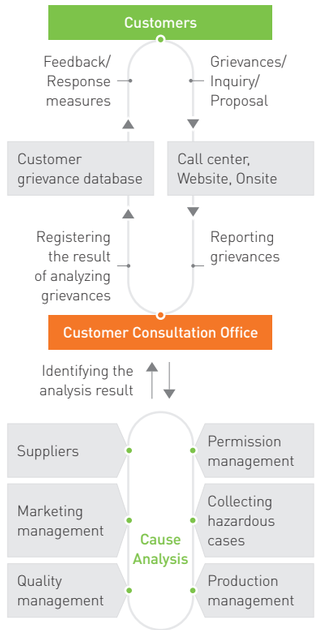
Driven by a sense of responsibility regarding the safety of its pharmaceutical products, SK Chemicals conducts post-marketing surveillance and pharmacovigilance. In the case of a new drug or an improved new drug, we perform post-marketing surveillance according to the reevaluation criteria for new drugs, etc., set by the Ministry of Food and Drug Safety in order to gather data on the effects and side effects of a drug taken as part of a trial by 600 to 3,000 patients over a period of 4 to 6 years. The collected data is used to confirm and verify the safety and effectiveness of the drug. Pharmacovigilance is conducted for released drugs to collect cases of toxicity and damages and to analyze the cause and effect relationship so as to prevent future harmful cases.

Current Status and Result of Clinical Tests

The clinical tests performed in 2015 successfully proved that the arthritis drug currently available in the market is effective and safe when taken in the new dosage and format, pending approval from the Ministry of Food and Drug Safety. In addition, the world's first quadrivalent cell culture-derived influenza vaccine developed by SK Chemicals obtained the Ministry's approval for marketing. Clinical tests are currently under way to develop vaccines for shingles, pneumococcus, cervical cancer, and other medical conditions.

Pharmaceuticals Management System

Process for Addressing Customer Grievances



Quality Assurance & Quality Control System

An integrated quality assurance(QA) and quality control(QC) system is being implemented for three plants in Osan(SK Plasma), Andong(L HOUSE), and Cheongju(S HOUSE). Our policy on education, complaints, irregularities, modifications, corrective actions and preventive actions(CAPA), returns and recalls has been prepared based on a review of Good Manufacturing Practices(GMP).

World-Class Pharmaceutical Quality System(PQS)

In order to create a solid pharmaceutical quality system and meet the quality demands of our partners, we apply international guidelines on pharmaceutical quality design, implement a consistent quality management system across all our facilities, and harmonize our quality management review systems. Our plans also include raising the operational efficiency of our quality management system by monitoring the key PQS indicators and introducing an electronic system, and increasing the reliability of our pharmaceutical quality system.

Responses to Mandatory Compliance with PIC/S GMP

As GMP has become mandatory following our accession to The Pharmaceutical Inspection Convention and Pharmaceutical Inspection Co-operation Scheme(PIC/S) consecutive steps have been taken for the application of advanced GMP in line with the global standards, and the creation of a more sophisticated quality management system. Based on risk analysis, we have established a quality system that makes quality improvement possible throughout the entire product life cycle, thus removing possible obstacles to obtaining approvals for newly developed products and laying the foundations for meeting the GMP requirements.

Good Manufacturing Practices(GMP) Approvals

Cheongju(S HOUSE) plant which produces synthetic drugs, was remodeled in 2014 and obtained GMP approval from the Ministry of Food and Drug Safety, a certification for safety, effectiveness and quality. Both solid dosage forms and patch-types have acquired the EU GMP, attesting to our excellent quality management ability in line with international standards.

Strict Control of Unused Medicines

SK Chemicals follows strict rules to dispose or manage unused medicines. Generally, we entrust the disposal work to a professional disposal company licensed by the government to minimize the environmental impact of the chemicals. From the collection till disposal, each person in charge checks at each phase under governmental guidelines.

Responding to Customer Demands and Grievances

Our Customer Service Manual has been updated to tighten the rules on the handling of customer grievances about product usages. The CRM system has resulted in better communication among the marketing, production and R&D departments, thereby enabling us to incorporate information on products, competition, and market trends into our business strategies in a timely manner and consequently provide the products that our customers want.

Core Reporting Aspect. 02

Operating Safe and Healthy Plants

- Companies need to strengthen their safety and health systems and respond to regulations in a more active manner
- Companies face growing demand to minimize the impacts of their business activities
- Companies should be more concerned about keeping their employees healthy

Material Issue

Tightening Plants Safety and Chemicals Management

Opportunity Component

- The adoption of an advanced safety and health management system can lead to higher operational efficiency
- The company's reputation can be improved by preventing accidents and proactively dealing with safety issues

Risk Component

- Increased safety and health-related internal systems and programs can place a financial burden on the company
- The company's image could be tarnished if a safety issue occurs and the company fails to take the proper follow-up action

Business Importance

- Prevent physical and human losses to the company and employees
- Enhance external and internal confidence in the company by creating a healthy working environment

Social Importance

- Fulfill corporate social responsibility by managing health & safety at the plants and in their neighboring areas
- Assume a leading role in health & safety management by adopting exemplary practices and by proactively and voluntarily responding to and complying with regulation

Core Aspect

Operating Safe and Healthy Plants

- Establishing a Health & Safety System for the Plant
- Operating the Health & Safety Management Program
- Controlling Potential Leakages of Hazardous Chemicals

Promises and Goals for Operating Safe and Healthy Plants

SK Chemicals intends to create and operate a SHE Management System in order to identify and address problems related to the safety of our plants on an ongoing basis. Construction of the system is a group-wide project led by SK Group, the goal of which is to bring all of the group's accident prevention and response systems in line with the standards of global industry leaders. The system will be designed to involve all of the existing data, including the current organizational structure and processes, and to clarify to-do items, which will be incorporated into a manual for accident prevention and response. All employees will be asked to fully familiarize themselves with what they are expected to do according to the manual. The SHE Management System will be completed by the end of 2016, with its full-fledged launch and documentation tentatively scheduled for 2020.

Chemicals Production Facilities of Ulsan Plant

Establishing a Health & Safety System for the Plant

Direction in Establishing a Health & Safety System for the Plant

SK Chemicals is currently in the process of creating a systematic accident response system and procedures in order to prevent safety and health accidents at the workplace. This is part of our continuing efforts toward creating healthy plants where accidents and risks are effectively prevented by strengthening the capacity to proactively respond to external regulations and advancing the SHE Management System.

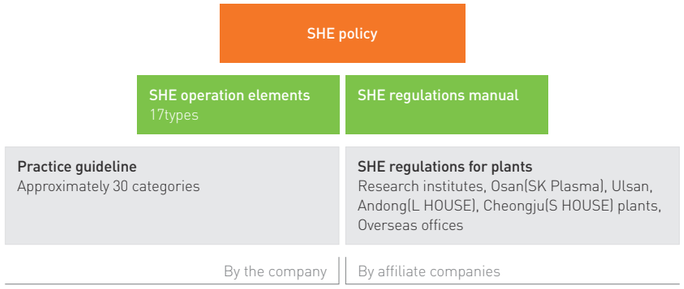
Construction and Operation of the SHE Management System

The safe environment manager, as a member of the Sustainability management Team, newly organized in 2015, is responsible for companywide SHE management. Furthermore, we plan to complete the construction of the SHE management system in such a way that it is tailored to our unique business needs and meets global standards by 2016, in tandem with SK Group's plan to build a SHE Management System for the entire group.

SHE Management System

Directing Point for SHE Management

"SK Chemicals secures trust and support from society by continually carrying out activities that protect human beings, promote the health of the human race, and preserve the earth's environment."



SHEQ System Certifications

The Ulsan plant has obtained the ISO 9001(Quality Management System), ISO 14001(Environmental Management System), and OHSAS.KOSHA 18001(Safety and Health Management System) certifications, and is running the SHEQ(Safety, Health & Environment Quality) system. We are working diligently to proactively identify and eliminate harmful factors and risk factors associated with product quality with the aim of achieving a zero defect rate, thus minimizing damages that may be caused by our products, and ultimately meeting the quality standards that our customers demand.

Emergency Response System

Each plant has put in place a response system, including an action flow chart and a network of emergency contacts that employees should follow in the event of an emergency, in order to minimize environmental impacts, casualties, and property losses. Employees in charge of coping with emergencies are mock-trained on a regular basis to be able to respond to fire, explosions, environmental accidents and other natural disasters in a more effective and timely manner.

Fire Drill at Cheongju(S HOUSE) Plant

Operating the Health & Safety Management Program

Direction in Operating the Health & Safety Management Program

SK Chemicals is committed to improving safety and health at the plants by offering well-planned safety and health education programs and systematically implementing effective safety and health policies. We are carrying out highly effective programs to promote a sound safety culture and raise awareness of health issues, including regular safety inspections and evaluations, and are steadily increasing healthcare support for our employees.

Safety Green Card System

The Ulsan plant is implementing the Safety Green Card System, a safety management program that applies to business parners that provide regular repair services and construction site-related providers. Under the system, companies are classified into three groups: Green(best employees for safety management), Red(One Strike Out, violators of four major elements), and Yellow(violators from among 20 major management items). Companies are rewarded or penalized strictly according to their safety management performance. In 2015, red cards were issued for 3 violations of the non-smoking area restriction, 1 failure to wear a safety hat, and one inadequate measure to avoid flame dispersion, while 2 Yellow Cards were issued for one failure to wear a safety hat and one inadequate measure to prevent flame dispersion.

Safety 7 Rules

Safety 7 Rules constitute a set of rules that all employees who access the Ulsan plant are required to follow in order to eliminate any possibility safety accidents. In order to ensure effective supervision over compliance with the Rules, the Safety Management Department has been empowered to exercise greater supervision, and violators of the Rules are subject to strict disciplinary actions so that all employees faithfully abide by the Rules as they perform their daily routine. In 2015, there were two violations of the work approval requirements and one failure to report a safety accident.

Safety Inspection and Audit

Under the 'Permit to Work' system, all construction projects and works are inspected for safety before they can be initiated, and risk assessment is conducted for each process to better prevent safety accidents. In addition, our SHE Audit Program requires the SHEQ internal audit team to perform two self-audits per year, while an internal audit board composed of experts in different processes closely reviews various sectors regarding process safety-from regular safety to technology.

SHE Performance Evaluation

Individual workplaces are fairly evaluated on their SHE performance based on a clearly identified set of KPI(Key Performance Index) guidelines and quantified data. For KPI evaluation of individual production departments, we use evaluation items that have been quantified in a way that reflects the different conditions of each workplace, and quantitative formulas.

Industrial Safety and Health Committee

Health and safety at the workplace can only be ensured when all employees are conscious of safety and implement safety inspections and management on a regular basis. The Industrial Health and Safety Committee meets quarterly to ensure that both management and employees are kept informed of safety issues, and share their thoughts on how to improve health and safety, thereby promoting a culture of safety.

Safety and Health Programs for Coexistence and Cooperation

The Ulsan plant contributes to preventing industrial accidents by providing its partners with the health and safety technologies it possesses. Specifically, the plant shares a number of safety and health management programs, including risk assessment education programs and joint workplace safety inspection programs, as well as lending items of safety equipment(e.g. gas measuring equipment, air respirators, safety), to seven partner companies operating within its facilities and thirty business partners, thereby helping them enhance their safety and health performance.

SHE Key Performance Index

Operation Indicator	Guidelines
	Points are deducted when a safety/ environmental accident happens (based on Ulsan plant) - 90 points when no safety/environmental accidents happen - Deducted points × 100/number of team members + Material loss (10points/KRW 10 million)
	Extra points will be awarded for extraordinary efforts that have contributed to preventing safety & environment accidents

Safety and Health Education and Training

The Ulsan plant offers internal education in addition to legal education, which includes professional education, prior to the start of a construction project and general education on new and amended company rules. In the same way, the Andong(L HOUSE) plant provides education programs designed to raise safety awareness and avoid unsafe behavior, creates videos based on emergency scenarios to educate employees on how to respond to different types of accidents, and conducts crisis response drills in a highly organized manner.

Preparing a Health Promotion Program for Employees

All employees of SK Chemicals receive regular medical check-ups and vaccinations against epidemic diseases, both of which are paid by the company. If anything indicating a possible health problem is detected or diagnosed in a checkup, the employee in question is invited for an in-depth medical counseling session, and all employees aged 40 and above are entitled to a comprehensive medical checkup. We also conduct health management education programs and campaigns to create a healthy and dynamic work environment.

Health Promotion Programs Run by Plants

Headquarters (Eco Lab)	Ulsan Plant	Osan(SK Plasma), Andong(L HOUSE), Cheongju(S HOUSE) Plant
· Resident licensed nurses are hired to provide medical services to employees · In-house fitness center, yoga room, healthcare center(medical services center) · Offers a 'Mind-body Control Training' program that is available to employees and their family members	· Resident licensed nurses are hired to provide medical services to employees · The nurses should have completed the Health Promotion Leadership Program provided by the Korea Occupational Health and Safety Agency (KOSHA) · The plant has been running the 9988 Health Promotion Campaign(Live a Healthy Life up to the age of 99) which encourages employees to quit smoking, manage their weight and adopt a low-sodium diet, among other initiatives	· GMP(standard for production medicines and quality control)-based employee healthcare rules · High-quality healthcare services including regular medical and special checkups, and medical checkups for employees

Healthcare Support for Employees

In addition to the legally required mandatory employee medical checkup, the company offers 'UB Fortune Service', an individualized healthcare program, to employees and their family members. In particular, employees who handle hazardous materials are required to take a special checkup, are evaluated for job fitness, and assigned the most appropriate job.

No-smoking Campaign	Anti-obesity Program	Low-salt Meal Program
· The entire building is designated as a non-smoking area · Decreasing outdoor smoking areas · In-company non-smoking clinic	· Exercise and instruction on diet · Regular monitoring · Selecting and awarding Diet King	· Phased reduction of salinity in soups and sodium content in seasonings and sauces
Out of 34 employees who joined the first session of the quit-smoking program, 15(44%) successfully quit smoking	Selecting 15 final candidates(56%) among 27 subscribers after passing the three month weight-loss period and three month maintenance period	Maintaining salinity in soup at a level of 0.7% Maintaining the amount of sodium per meal at a level of 1,300-1,500mg

Controlling Potential Leakages of Hazardous Chemicals

Hazardous Chemicals Control

Direction in Controlling Potential Leakages of Hazardous Chemicals

In compliance with the regulations on the management of hazardous chemicals. SK Chemicals has been implementing the SHEQ system, an integrated information system for safety, health, and environmental quality since 2005 to ensure the systematic management of such chemicals. SK Chemicals conducts a workplace environment assessment twice each year for facilities exposed to hazardous chemicals, including methyl alcohol, sodium hydroxide, ethyl acetate, toluene, chloroform, and xylene. The assessment is intended to measure the degree of exposure to hazardous materials and use the data to create a healthier and safer working environment.

Rules on the Treatment of Hazardous Chemicals

As part of our efforts to minimize the negative impacts of chemical accidents, SK Chemicals has established a set of rules on the treatment of lab waste, according to which the company established an accident prevention plan and embarked upon the construction of an emergency water recycling facility, and is now required to notify local residents living in the vicinity of our plants. In 2015, SK Chemicals used 33,355 tons of hazardous chemicals, less than in the previous year, and none of our facilities had an accident involving hazardous materials.

Our Responses to Hazardous Chemicals Management Rules and Regulations

In response to the tightened regulations under the Act on the Registration and Evaluation, etc. of the Chemicals and the Toxic Chemicals Control Act, which took effect in 2015, a hazardous chemicals manager has been appointed not only for the plants, but also for the procurement, marketing and research departments. The managers monitor the entire cycle of chemical use from import and research to production, sale and disposal. They ensure compliance with the regulations of other countries, including the REACH and FDA regulations, thereby further increasing the safety of our products and boosting exports.

Designating Hazardous Chemicals Manager

Each department has a designated hazardous chemicals manager whose job includes educating and supervising employees handling these chemicals, inspecting facilities and managing inventory and storage facilities once every week. Our R&D centers have appointed a regulations manager and a safety manager who educate employees on how to put on legally-appropriate protective gear and stay safe. In addition, they perform a safety patrol around the facilities to conduct inspections and education on the safe use and disposal of hazardous chemicals.

Management Process of Hazardous Chemicals

Process	Reporting to the relevant agency (prior report)	Stocking chemicals (including hazardous chemical substances)	Storage/ Preservation	Use	Disposal	Report to the administrative office (post-report)
Record keeping	Writing and reporting a case in accordance with the stated form	Inputting information in the SHEQ System or recording the chemicals management register	Recording the storage register	Inputting information in the SHEQ System or recording the list on use	Inputting information in the SHEQ System or recording the waste management register	Writing and reporting cases based on the stipulated form

Core Reporting Aspect. 03

Establishing an Improved Corporate Culture

- Growing need to recruit talented employees so as to develop new growth engines and respond to market change and to better respond to customer demands
- Growing social demand for non-discrimination and equal opportunities
- More options for employee welfare

Material Issue

Expanding Education Programs to Enhance Competencies of Employees

Opportunity Component

- Raise competitiveness through professional competencies and passion that only high-quality human resources can provide
- Improve job efficiency and management performance by keeping employees satisfied at work

Risk Component

- Brain drain due to lack of systematic career development programs and support
- Insufficient employee welfare and rigid corporate culture can lower morale among employees

Business Importance

- The achievement of global Competitiveness in market and development differentiated products by maximizing employees' professional competencies
- Maximize synergistic effects by encouraging free communication and building a culture of respect for and among employees

Social Importance

- Lead the spread of a desirable corporate culture by actively developing human resources, ensuring fair performance evaluation and offering equal opportunities
- Improve the company's external corporate image by increasing employees' satisfaction

Core Aspect

Establishing an Improved Corporate Culture

- Expanding Employees' Professional Competencies
- Recruiting and Supporting Superior Human Resources
- Creating a Win-Win Labor-Management Relationship
- Securing a Sound Work-Life Balance

Promises and Goals for Establishing an Improved Corporate Culture

In order to recruit people who are 'Warm-hearted Professionals', our recruitment system has been redesigned and brought into line with the expectations of our employees as summarized in the slogan, 'Warm-hearted Professionals', and we are planning to expand and improve our education programs in a way that can help us grow into a global chemical and pharmaceutical company, including competency enhancement programs tailored to the needs of employees at varying levels of their career development, global competency development programs, and introductions to the humanities. We will also strive to create a work culture conducive to increasing the value of the earth and humanity, and to maximize employee satisfaction by ensuring that our performance evaluation and compensation systems are fair and reasonable and that our employees can strike a sound balance between their work and the needs of their family.

Orchestra Performance at G.rium Hall, Eco Lab

Expanding Employees' Professional Competencies

Direction in Expanding Employees' Professional Competencies

In order to ensure that our employees remain qualified and competitive, we have consistently invested in employee education and training even in the midst of business restructuring and economic downturns, and provide all employees including non-permanent employees with the same education. Our HR development mission is 'Realizing Sustainable Performance'. To realize this mission, we have created a framework within which all of our employees can achieve sustainable results by making sure that at least 10% of our employees are enrolled on an educational program at all times.

Improved New Employee Training

New employees are required to attend an introductory training program for one to four months depending on their job assignment immediately upon joining the company. Through this program, employees learn not only job-specific knowledge but also about communication and socializing with other members of the organization, leadership and cooperation, and the importance of trust. The program also incorporates character-building elements such as volunteer activities and soul-searching to provide balanced education. Under the slogan, 'Warm-hearted Professionals', all of our short-term and long-term education programs feature On-the-job Training(OJT) as the basic essential element, and maximize the effects through the mentoring system, in which qualified senior employees selected from among the very best provide coaching and guidance to junior employees.

Education Programs for Newly Appointed Positions

SK Chemicals provides specialized education programs for employees who are newly appointed as team heads, managers and assistant managers, in conjunction with SK Group's education programs. The purpose of the program is to help newly-appointed team heads to better perform their new roles and responsibilities as leaders; new managers to develop their leadership competence to increase their clout within the organization; and new assistant managers to strengthen their self-leadership abilities.

Education System for Employees

Fostering 'Warm-hearted Professionals' by Creating 'Favorable Workplace to Work'

Self-development
· Constant efforts by oneself

Fostering employees through work
· Accumulating experiences and developing careers through each job and course for pursuing SUPEX
· Basis for developing capability

Education and training
· Systemic short-term and long-term/ online and offline education and training

+

Mentoring Program

Mentoring for Newly Recruited Employees

Job Competence Development Programs

Programs designed to develop employees' job competencies include business language programs, data analysis, creative problem-solving, presentation skills, strategic planning process, and feasibility analysis for new businesses. Approximately twenty people participate in each program on average, and the programs have proven to be increasingly satisfactory each year.

Intensive Global Language Courses

Our English language program focuses on speaking, presentation and writing skills, with the aim of making our businesses more competitive by improving the business English-speaking skills of our employees. This 10-week intensive language program exposes learners to an environment in which they are required to speak English, and has been helping our employees to improve their language skills to a significant degree.

GC Marketing Competence-Increasing Education

We have created a training program for junior employees encompassing the entire cycle of marketing, accounting, sales, negotiations, contracts, and receivables management of Green Chemicals Business, and we also plan to develop and offer a customized education program for senior employees in a similar format.


LS Marketing Empowerment Education

LS Marketing Empowerment Program

All of the more than 400 employees of our Life Science Business participated in the '2016 LS Marketing Empowerment Program'. It is a leading marketing education program that domestic pharmaceutical companies have been offering to their employees since 2001 in a bid to build professional expertise and competence and share specific marketing strategies designed to promote new products, including our cell culture-derived quadrivalent influenza vaccine, and to support marketing efforts targeting leading global markets.

SK Chemicals Company-wide Education System

* **HIPO** : means 'High-Potential' referring to employees with strong performance or potential for growth

Type		Supervisor	Assistant Manager	Manager	Deputy General Manager	Team Leader	Executive
HIPO* Selection Process						HIPO Team Head Program	GLDP
						Jr HIPO	GPE
				Domestic and overseas MBA /	Diploma course for R&D at home and abroad		Executive coaching
				Domestic MBA, regional expert(GFP),	language intensive course at Hankuk University of Foreign Studies		
Capability	Job	Short-term dispatch job course, GC MKTG business headquarters education, LS marketing headquarters education,			LS ICD, cyber training center, in-company job course		Learning account / I-MDP
	Global		In-house intensive		language programs		
		OLP(On-line language program) and			PLS(Personal language study)		
Value / Rank		Humanities lecture /			Reading discussion		
		Entry level course for new / Experienced employees				Interviewer Education	
			Course for new assistant managers	Jr. female leadership program	Course for new managers	New Team Heads: Course for new team leaders / Education for appraisers	Course for new executives / Course for new / Sales / Department heads

Recruiting and Supporting Superior Human Resources

Direction in Recruiting and Supporting Superior Human Resources

Under the slogan, 'Warm-hearted Professionals', SK Chemicals is striving to recruit and retain employees with a warm heart and excellent professional qualifications. Our recruitment information sessions are differentiated and our recruiting process is fair and equitable. Our evaluation process ensures that our employees are fairly evaluated and rewarded for their performance. We fully recognize the importance of people as a key driving force behind the organization's growth and remain committed to creating a workplace where both the organization and individuals can grow together.

Invitation to the Company for Future Employee
SK Chemicals held recruitment information sessions and Go! Eco-Lab, a company tour program conceived for job candidates who wish to work with us. We invited 100 applicants for a position to get involved in multiple programs - including a corporate introduction session, a tour of major facilities within the headquarters building, and a dialogue with current employees. The special recruitment program provides future employees with accurate information on the goals and culture of SK Chemicals and the jobs they will be expected to perform. The program helps us to recruit qualified individuals who can better meet our expectations.

A Fair Evaluation System
SK Chemicals operates the IT-based Performance Evaluation & Coaching System(PECS). Overall performance is evaluated and classified into grades based on the results of the data analysis performed by the system, and the achievements and competencies of individual employees. Evaluators use the multiple tools provided by the company in order to ensure that the evaluation process remains fair and objective. In addition, each phase of the evaluation process is followed by a review and adjustment session, and the results of the evaluation are audited. Upon finalization of the evaluation, the evaluator and the subject of the evaluation have a face-to-face feedback session during which the strengths and weaknesses of the latter are explained and a competence enhancement plan is discussed, to help the evaluated employees perform their work more effectively.

Reasonable Reward System
We have put in place a competitive compensation system under which employees are rewarded according to the company's performance, and do our best to ensure that each employee is rewarded fairly for their performance. Our compensation program consists of both monetary rewards(annual salary, bonuses, etc.) and non-monetary rewards(sense of pride, sense of achievement, recognition, vision sharing, etc.). Initially, newly-recruited employees are paid equally regardless of gender, but after a certain period they eventually become subject to a compensation scheme that rewards all employees reasonably yet strictly according to their performance.


Recruiting Information Session and
Tour around SK Chemicals Headquarters Expo

Creating a Win-Win Labor-Management Relationship

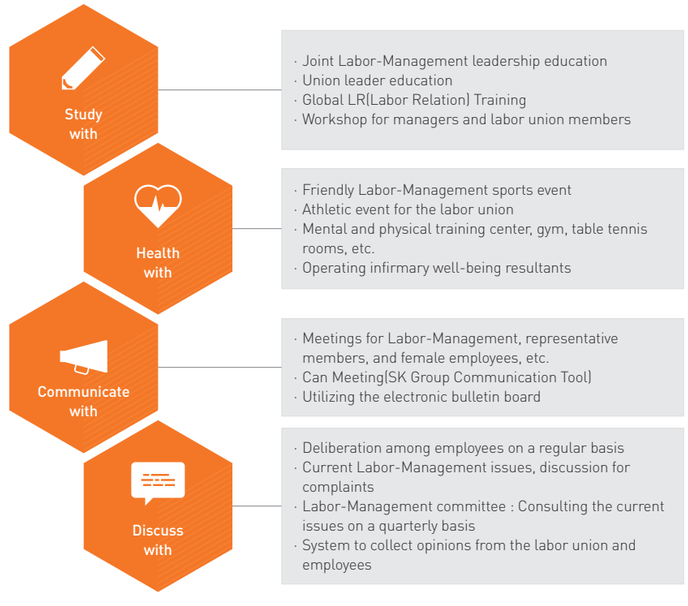
Direction in Creating a Win-Win Labor-Management Relationship

We take pride in the fact that we have had no Labor-Management disputes in the forty-six years since the foundation of the company, an achievement made possible by mutual confidence. Even when faced with such crises as massive layoffs and business restructuring in the past, we actively engaged in Labor-Management dialogues and were able to work out a consensus each and every time. We are constantly trying to build a corporate culture in which both labor and management can win by implementing Labor-Management harmony programs in terms of 'Study with', 'Health with', 'Communicate with', and 'Discuss with'.

Introduction of a Wage Peak System
Many companies are introducing a wage peak system as the legal retirement age is due to be raised to 60 in 2016, but reaching an agreement with the labor unions remains elusive. A high level of mutual trust with SK Chemicals has enabled labor and management to engage in honest and open dialogues and finally to agree to a wage peak system so that employees can enjoy solid job security despite the increased retirement age, while the company can still create more jobs for youth. Our win-win Labor-Management relationship has been further consolidated by the consensus on the wage peak system.

Guarantee of Labor Union Activities
SK Chemicals concretely stipulates content on guaranteeing rights and activities of the labor union in the General Provisions(Chapter 1) and Labor Union Activities(Chapter 2) in the collective agreement, which was drawn by agreement between laborers and management. The company also strives to protect rights of employees by guaranteeing activities by the labor union, which are stipulated in the relevant legislation(Trade Union and Labor Relations Adjustment Act, Act on the Promotion of Worker Participation and Cooperation). When there is a change that can affect employment, we notify the labor union at least three months before the change.


Workshop for labor union managers



Securing a Sound Work-Life Balance

Direction in Securing a Sound Work-Life Balance

SK Chemicals is working to establish a corporate culture where employees are motivated to conduct their duties effectively and produce sustainable results for the long term. Our employee compensation programs are designed to create a 'Favorable Working Environment' where employees are highly motivated. Fair and satisfying compensation programs will enhance the quality of life at work and consequently raise effectiveness of employees' duties, ultimately leading to greater corporate competitiveness.

Supports for Rest and Family Members

Collective annual leave
All employees are entitled to a fixed number of days of annual leave to help employees recharge and maintain a good balance between their work and their personal life

Leaving work at a fixed time
Every Wednesday, employees are encouraged to leave work early to spend time with their family, enjoy hobbies or focus on self-improvement activities

Support for leisure activities
Employees can book up to four nights per year at a condominium at the company's expense

Internal employee welfare fund
The fund promotes the financial stability of employees by providing housing loans, tuition subsidies for their children, and medical expenses

Support for Childbirth and Childcare

Internal employee welfare fund
The fund promotes the financial stability of employees by providing housing loans, tuition subsidies for their children, and medical expenses

In-house day care center
The company runs an in-house day care facility to help female employees avoid an unwanted career hiatus due to childcare responsibilities and alleviates the child-rearing burden for employees

Support for Cultural Life

G.rium Program
The company offers lectures and performances that employees can enjoy to contribute to making our society healthier by sharing and spreading universal values, the ideas and teachings of the humanities, and worthy cultural activities

Italy Arete Tour
As part of our efforts to promote life-long learning in the field of humanities, the company provides employees with opportunities to travel to Italy and broaden their horizons, which in turn can help them achieve the mission of the company.

Work Leave to Improve Work Efficiency

The collective annual leave program, which has been implemented since 2013, is designed to help employees maintain a healthy balance between their work and their personal life by recharging themselves, to better prepare for a given task by giving them sufficient time to rest and think. In addition to the collective leave program, employees are encouraged to take days off as part of their individual annual leave and get recharged. In 2015, employees took a total of 5 days off as collective annual leave.

Promotion of Health for Employees and Their Family

Each individual employee is entitled to book four nights per year at a major condominium around the country at the company's expense as part of the employee welfare package to support their leisure activities and thus improve their quality of life. The internal employee welfare fund is operated to help employees with housing stability by providing loans for buying or renting a home. The entire amount of school education expenses for employees' children, including admission fees, tuition, and school support fees, is covered by the company, and the actual cost of medical services provided to employees and their spouses and children is also paid by the company. All these forms of support for our employees are aimed at creating a 'Favorable Working Environment'.

Support for Childbirth and Childcare

Employees are entitled to one year's guaranteed childcare leave that they can take back to back with maternity leave in our corporate culture, where employees are encouraged and supported in their efforts to strike a sound balance between work and family. In 2015, thirty-two female employees took childcare leave, fifteen of whom returned to work afterwards, while only eight quit their jobs. Only one male employee took childcare leave. Our Pangyo Global R&D Center runs an in-house day care center to help female employees prevent interruptions to their career.

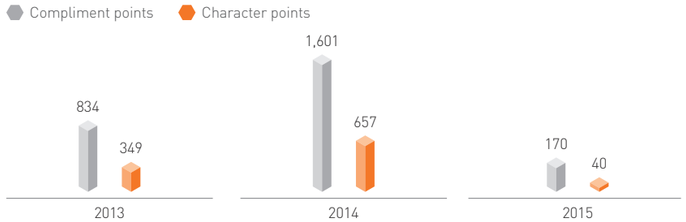
Management of Happiness Index

We plan and carry out various activities as part of our efforts to create an improved corporate culture in order to constantly improve the employee happiness index as indicated in the 'SK Culture Survey' conducted by SK Group every year. The results of the SK Culture Survey are incorporated into one of our Key Performance Indicators(KPI). The results allow the management to become aware of how happy or unhappy our employees are with their work and outside their work. Coaching takes place in the form of face-to-face meetings, Can Meetings, on-the-spot praise and external activities in order to address the complaints and needs of individual employees so that they can stay happy at work.

Character Point System

This system is intended to encourage employees to praise one another as they perform their day-to-day work and to develop the practice into a corporate habit and eventually a corporate culture, thereby fostering a mature corporate culture. If employee A praises employee B for a certain act or quality and employee B agrees to the praise, employee A receives a character point. Employees are allowed to express their gratitude to their superiors via character points so as to promote reciprocal praise. In 2015, a total of 210 entries involving praise and character comments were submitted.

Performance for Accumulated Compliment/Character Points Unit : Case



G.rium Program

SK Chemicals' G.rium Hall is a 209-seat multi-purpose hall for humanities lectures and classic performances. Lectures on a wide variety of subjects including literature, history, philosophy, art and religion are given twice each month. These lectures help employees to expand their job competence and knowledge of the humanities. In addition, children and youth from disadvantaged families as well as our employees and their own family members are invited to enjoy classic performances at G.rium Hall. A total of 130 lectures and 82 performances were held at the hall from 2010 to 2015.

Italy Arete Tour Program

The Arete Tour to Italy is an on-site education program that identifies lessons from history with a view to incorporating them into our corporate culture. The Arete Tour("arête" means excellence in Greek), which began in 2011 and has been run five times up to 2015, is intended to provide participants with opportunities to learn about the Renaissance Age and the achievements of the great minds of the period, understand the nature of human beings at the cradle of the humanities, refine their awareness of the importance of support and mentoring, gain first-hand experience of what 'Excellence' really is, and reflect upon the meaning of a life that is built on the principles of honesty and integrity. The tour has proven to be an enlightening experience for the participating employees in that they come back with a new perspective of the role each one of them should play in order to realize the corporate mission.


Italy Arete Tour

GENERAL REPORTING ASPECTS OF SUSTAINABILITY MANAGEMENT

Implementation of Sustainability Management

Sustainability Management of SK Chemicals

SK Chemicals aims to become a leading global company in the economic, environmental and social spheres by taking advantage of a virtuous cycle in which corporations and society prosper together through sustainability management. Our sustainability management mirrors the SK Management System(SKMS) adopted by the SK Group, and the vision and mission pursued by SK Chemicals.

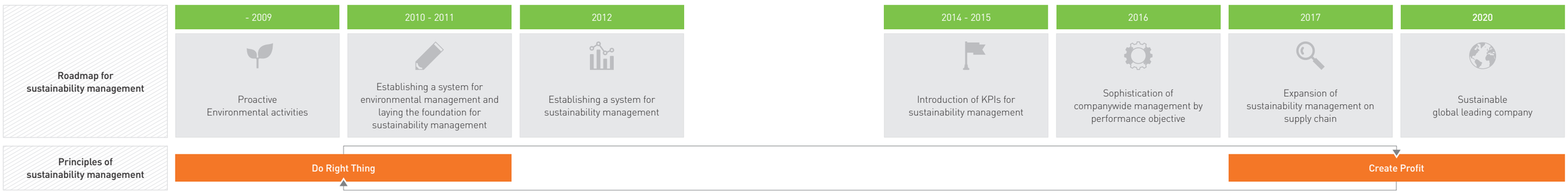
Strategies for Sustainability Management

In an effort to address the issues of public health and the environment, we have declared the 'Development of Sustainable Green Products based on a Green Culture and Green Processes' as the main strategic direction of our sustainability management, with 'Green' implying eco-friendliness in relation to people's lives and to the Earth itself. In addition, we have designated six areas and fourteen categories of sustainability management specific to the roles and responsibilities of SK Chemicals in order to establish an organized approach to sustainability management.

6 areas		14 categories
Sustainability management system		· Sustainability management system
HR		· HR development · Healthy balance between work and personal life · Labor-Management relations
Fair operation		· Ethics management · Fair trade
Shared growth	Social contributions	· Support through supply chain · Social contributions
SHEQ		· Prevention of environmental pollution · Efficient use of resources · Reduction of GHG emissions · Workplace health and safety · Product liability · Customer satisfaction

Roadmap for Sustainability Management

SK Chemicals upholds the principle of 'Seek Virtue First and Profit Later' in the daily conduct of our business activities in order to fulfill our social responsibilities. Since we first declared our commitment to sustainability management in 2012, we have been faithfully following our yearly plans for sustainability management, with the goal of becoming a global sustainable leader in the industry by 2020.

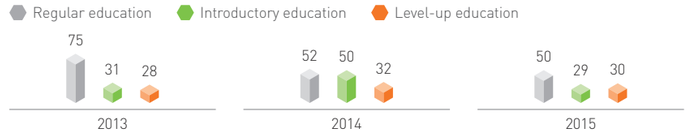


Education on Sustainability management and Awareness Enhancement

Education programs for sustainability management and environmental management are classified into the following three types: introductory, regular, and level-up. Introductory programs are structured so as to encourage employees to manage sustainability and the environment on a voluntary basis by internalizing a green culture and enhancing employees' capacity to implement green processes and green products.

Category	Introductory education ▶	Introductory education Separate intensive education for managers and staff members		▶ Level-up education Workshop for mangers and staff members
Period	Designed for newly recruited and current employees	Education in Q1	Education in Q2	Education in Q3	Education in Q4
Training hours	6hr	4hr	6hr	2hr	8hr
Details	· Sustainability education for new employees · Conducting education for experienced employees in 'Education for In-house New Employees'	· Training to cope with the greenhouse gas and energy target management system · Education for utilizing the integrated management system for environmental information	· Recent issues on global sustainability · Agendas on sustainable management · Education for writing a sustainability report · New system and strategies for response	· Conducting regular maintenance of plant training and online education in summer vacation · Sharing the current status of operating the Green Point and major issues	· Reviewing results of sustainable management and making future plans · Responsibilities and roles for dealing with new environmental laws · Demonstrating the integrated management system for environmental information · Education for dealing with the greenhouse gas trading system · Operating and reviewing Green Point System

Performances for Sustainability Management Education Programs Unit : Person



KPI Monitoring System for Sustainability Management

KPI monitoring system for sustainability management was determined after a review of the KPIs by the heads of the related departments and an interview with the heads and members of the related teams; and the KPIs adopted by leading companies have been benchmarked since 2014; while the monitoring KPIs were selected in 2015 after extensive discussions with heads of the related departments and teams, in order to establish a sustainability management KPI-monitoring system. A total of 13 departments participated in working out 104 KIPs in 19 areas and, in 2015, 13 additional KPIs and 30 non-KPI management indicators were identified. The performance of companywide sustainability management will be managed objectively and in a more sophisticated manner, while the application of sustainability management will be expanded to partners and suppliers.

Sound Corporate Governance

Composition of the Board of Directors

As of March 2016

Executive directors

Vice Chairman Chey Chang-won
- Recommended by the Board of Directors
- CEO and Vice Chairman
- Largest shareholder

President Kim Cheol
- Recommended by the Board of Directors
- CEO(Green Chemicals Business)
- Management Committee/Non-executive Director Nomination Committee

CEO Han Byeong-ro
- Recommended by the Board of Directors
- CEO(Life Science Business)
- Management Committee

Non-executive Directors

Director Ahn Deok-geun
- Recommended by Non-executive Director Nomination Committee
- Non-executive Director Nomination Committee/Audit Committee

Director Choi Jeong-hwan
- Recommended by Non-executive Director Nomination Committee
- Non-executive Director Nomination Committee/Audit Committee

Director Kim Hui-jip
- Recommended by Non-executive Director Nomination Committee
- Non-executive Director Nomination Committee/Audit Committee

Director Park Sang-gyu
- Recommended by Non-executive Director Nomination Committee/Audit Committee

Composition of the Board of Directors

The Board of Directors consists of three executive directors and four non-executive directors, with the non-executive directors making up the majority to ensure that the decision-making process and corporate management remain independent and transparent. With the goal of maximizing the interests of shareholders and investors, protecting the rights of all stakeholders and achieving long-term company growth concurrently, experts from various fields including chemistry, economics and law have been invited to serve on the Board of Directors as non-executive directors, thereby providing professional expertise in making decisions.

Operation of the Board of Directors

In principle, the Board of Directors meets at least once a month to obtain an accurate assessment of the company's economic, environmental and social performances, and to gather opinions from shareholders and employees. Issues to be discussed and reported at the board meeting are notified to individual directors by the secretariat of the Board of Directors five days prior to the meeting, along with the date, time and venue. The Board of Directors met ten times in 2015 and passed resolutions on key agenda items, based on thorough verifications and in-depth discussions after reviewing the global and domestic economic conditions, and discussing possible responses to them.

Committees within the Board of Directors

Three committees are operated within the Board of Directors in order to further enhance the independence and efficiency of the Board of Directors' activities. Notably, the Audit Committee is entirely composed of non-executive directors and effectively performs its roles by adopting appropriate procedures in reviewing, comparing, and conducting due diligence on books, financial statements, and other financial documents, and by reporting issues and taking corrective actions in a timely manner.

Activities of the Board of Directors

No. of regular meetings		Unit : Meeting
2013	2014	2015
12	11	**10**

Issues voted down		Unit : Item on agenda
2013	2014	2015
20	16	**22**

Issues passed		Unit : Item on agenda
2013	2014	2015
20	16	**22**

Attendance at Board Meetings

Attendance rate for executive directors		Unit : %
2013	2014	2015
100	90	**97**

Attendance rate for non-executive directors		Unit : %
2013	2014	2015
94	83	**95**

Management Committee	Non-executive Director Nomination Committee	Audit Committee
2 executive directors	1 inside and 3 non-executive directors	4 non-executive directors
· Reviews and makes decisions on matters concerning the company's management · Formulates strategies to enhance corporate performance for long-term company growth	· Nominates non-executive director candidates to be appointed at a general shareholders' meeting · Discusses matters regarding the composition and operation of the candidate nomination committee	· Draws up and implements audit plans, evaluates the results, takes follow-up measures, and proposes recommendations for improvement · Monitors laws, articles of incorporation and bylaws, and other matters entrusted by the Board of Directors

Independence of the Board of Directors

In order to ensure that the director appointment process remains independent, the director candidates to be appointed at a general shareholders' meeting are selected by the Board of Directors(executive directors) and the Non-executive Director Nomination Committee(non-executive directors) and submitted to the general shareholders' meeting as an item on the agenda. The Non-executive Director Nomination Committee(3 non-executive directors & 1 executive director) considers the work experience and expertise of the candidates in their relevant field(e.g., economy, environment, society) and reviews the commercial law, its enforcement degree, and other relevant laws and regulations to ensure that the candidates meet all of the legal requirements. The Audit Committee, which is made up entirely of non-executive directors and operates under the Board of Directors, reinforces the independence of the Board of Directors and ensures transparency in its activities.

Preliminary Briefing and Discussions on Major Issues in Board of Directors and Committees

Major issues are explained and discussed before the Board of Directors or committees officially convene so that non-executive directors can better understand individual issues and make informed decisions on the issues to be included on the agenda. This preliminary briefing allows non-executive directors to gain a good understanding of individual issues before they discuss the issues and make decisions at the formal meeting. This procedure represents SK Chemicals' determination to strengthen the sense of responsibility regarding decisions made by the Board of Directors and the committees.

Listening to the Voices of Shareholders and Investors

The general shareholders' meeting is a core communication channel, and it is held each year to allow the CEO to report the current status of management to shareholders and to listen to opinions regarding major decision-making processes and management. Shareholders' opinions presented at the meeting are reflected in the overall management through the in-depth review process by the management and BOD. Major management matters regarding investors' profits are announced through the Data Analysis, Retrieval, and Transfer System of the Financial Supervisory Service, Korea Exchange, and SK Chemicals' website.

Distribution of shareholders

Ordinary shares as of March 30, 2016

Shareholder name	Choi Chang-won	National Pension	Employee Stockholders' Association
Number of owned shares	4,131,560	2,880,028	731,424
Share ratio	17.00%	11.85%	3.01%

Systematic Risk Management

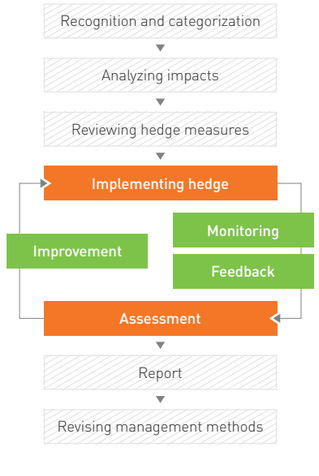
Risk Management System

SK Chemicals has established a risk management system that is implemented company wide after realizing that properly managing risks amid the rapidly changing business environment is critical in securing the right conditions for sustainability. Individual departments are responsible for managing risks relevant to their business, taking into consideration the macroeconomic conditions, changing industry trends and environment, and business strategies. Matters related to risk management are reported, and decisions are made according to a set of rules. SK Chemicals identified ten risk factors in the three areas of economy, environment, and society, and individual units of the company are responsible for devising strategies to respond to these risk factors in their own capacity.

Scope of Risk Management

Main areas	Sub-category	Expected impact	Strategies
Economic	Exchange rate/prices of raw materials	High	· Exchange rate hedge · Investment in securing raw materials · Developing alternative raw materials · Prospecting the market accurately · Preparing response strategy
	Corporate governance	Slightly low	
	Business structure	Slightly high	
Environmental	Regulations	High	· Improving products/procedure · Introducing facilities for energy efficiency · Conducting in-company campaign · Developing eco-friendly products
	Physical factors(climate changes)	Average	
	Changing market conditions	Average	
Social	Safety accidents	High	· System-based safety management · Education for emergency · Self-purification education · Agreement for confidentiality · Applying a system for document security · Media/PR
	Corruption	Average	
	Security	Slightly high	
	Stakeholders	Slightly low	

Crisis Management Process



Responses to Major Environmental Regulations

In 2015, laws that may wield serious financial impact on corporations came into effect. These laws include the "Act on the Registration and Evaluation, etc. of Chemicals(large amount of substance registration cost expected)", "Chemicals Control Act(penalty equivalent to 2.5% of sales for any violation of the Act)", and "Act on Allocation and Trading of Greenhouse Gas Emissions Allowances(Emissions Trading System, risk of paying several billion won in penalties per year)." Corporations are legally required to purchase environmental liability insurance that may cost up to 30 billion won in 2016 as the "Act on Liability for Environmental Damage and Relief Thereof" takes effect. In addition, Korea declared its commitment to reducing GHG emissions by 37% by 2030 at the COP 21 held in November 2015. As a consequence, Korean companies will likely be required to reduce GHG emissions significantly.

Responses to Safety Accidents

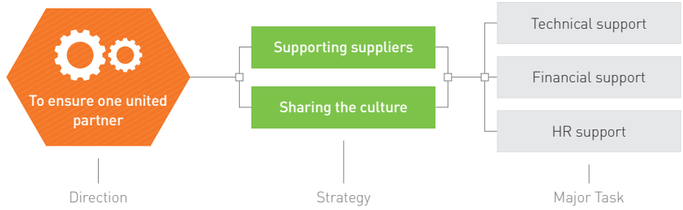
In May 2015, a fire broke out in the Ulsan plant. There was no casualty, but the fire served as a powerful reminder of how important it is to manage risks and outdated facilities properly. In order to prevent recurrence, the company invested approximately 8.0 billion won in improving the facility, equipment inspection system, and surveillance system. SK Chemicals is constantly advancing its SHE(Safety/Health/Environment) management systems to deter industrial accidents and fostering a corporate culture in which these systems can be operated as they should. This way, risks of accident can be minimized.

Mutual Growth and Support for Business Partners

Policy for Shared Growth

SK Chemicals upholds its founding principle of 'Pursuing Happiness of Stakeholders' by actively pursuing shared growth with its partners. To this end, we provide substantial benefits including financial support and various education & training opportunities so that a culture of fair trade can be promoted and our partners can become more competitive.

System for Carrying out Shared Growth



Support for the Business Stability of Business Partners

SK Chemicals set up the SK Win-Win Cooperation Fund in 2013 to help its Business Partners remain stable in conducting their business activities. As of the end of 2015, 4.3 billion won was provided from the fund to a total of 9 Business Partners. In addition, SK Chemicals supports the financial stability of its Business Partners by adhering to the principle of making all payments to the Business Partners in cash within 10 days of the date a business transaction is finished.

Size of SK Shared Growth Fund

Unit : KRW billion, partners

Category	2013	2014	2015
Cost for shared growth fund	8	8	**8**
Total loans	6	7	**4**
Number of Business Partners having loans	15	13	**9**

Support for Competitiveness Enhancement

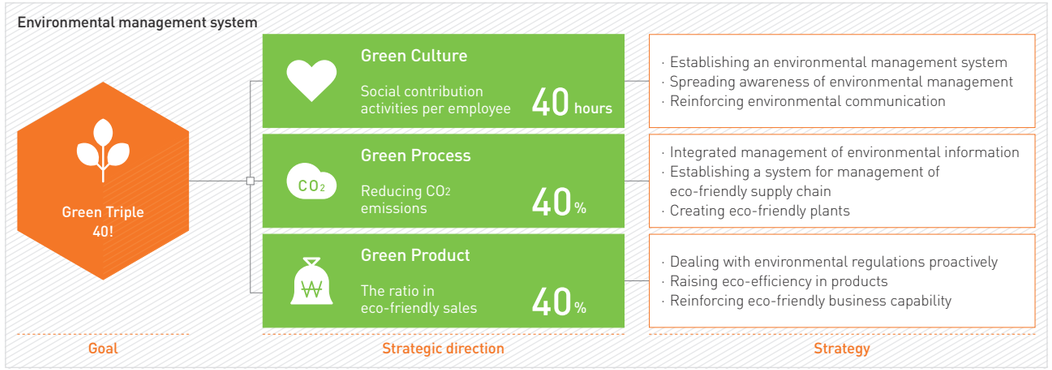
SK Chemicals has been providing partners with education programs including CEO seminars, SK Shared Growth MBA(formerly known as 'Management Development Program', and online education programs, etc., since 2006 to help our partners increase their competences and competitiveness, thereby ultimately realizing shared growth with them. In 2015, the 53 CEOs of our partner companies joined CEO seminars, and 6 intermediate managers benefited from the SK Shared Growth MBA. SK Chemicals organized the 'SK Shared Growth Job Fair 2015' in cooperation with SK-affiliated companies operating in the Ulsan area in an effort to address recruiting difficulties faced by partner companies and help job seekers in the local community find jobs.

Recruiting Expo Jointly Held with Partners in Shared Growth

SK Group Shared Growth Academy

CEO Seminar 12 companies / 53 persons	SK Shared Growth MBA 6 companies / 6 middle managers
Improving the CEO's capability, enhancing the management perspective · Managing changes in management, economic, and organizations Current conditions at home and abroad	**Reinforcing management capability of core leaders at suppliers through systemic management education** · Strategy, finance/accounting, marketing, HR/leadership, etc. · Global workshop in China

Environment-Friendly Plants



Goals and Strategies for Environmental Management

Under the goal of 'Green Triple 40!' by 2020, SK Chemicals has been carrying out eco-friendly business activities in line with three strategic objectives. By meeting the quantified objectives set in tandem with the environment management strategies, SK Chemicals seeks to make its products and business activities eco-friendlier and consequently minimize their impact on the environment, aside from engaging in activities to preserve the environment to remain eco-friendly and make the society eco-friendier.

Integrated Management System for Environmental Information

SK Chemicals has established an integrated management system for environmental information under which all environment-related data including raw and subsidiary materials, air and water pollutants, energy, greenhouse gas emissions, safety, health, and eco-friendly procurement are managed together at the beginning of each year.

Eco-Friendly Buildings

Eco Lab, our headquarters' building, was planned and designed to be environment-friendly, and 101 eco-friendly materials and eco-friendly technologies were used for the construction. The building acquired domestic and international certifications, and it has become a landmark for eco-friendly architecture. Andong(L HOUSE) plant is the world's first eco-friendly pharmaceuticals plant that has acquired LEED Gold of the United States by meeting the GMP standards and employing a wide range of the latest eco-friendly technologies including energy and water-saving technologies from the designing stage of the construction.

Efficient Use of Resources

The used ethanol generated in the process of producing plasma derivatives is distilled into around 1,500 liters of at least 95.1% pure ethanol on a daily average, and the distilled ethanol is approved for use only after it passes quality tests. This enables reducing the cost of ethanol procurement and environmental impact.

Water Use Management

SK Chemicals depends largely on water supply systems that have relatively low impact on water sources. The headquarters and Osan(SK Plasma) and Ulsan plants use groundwater to meet part of its water demand. The headquarters and Andong(L HOUSE) plant collect rainwater for use in landscaping. On the other hand, the Ulsan plant has installed a reverse osmosis system. Approximately 75% of the water discharged from the general drainage system, which makes up about 62% of the total net water use, will be recollected and reused.

Environmental Performance of Eco Lab

Electricity reduction rate		Unit : %
2013	2014	2015
35	35	**37**

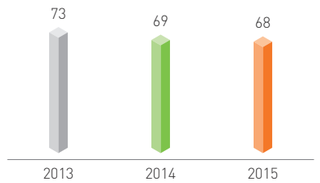
Water resource reduction rate		Unit : %
2013	2014	2015
23	15	**25**

Greenhouse gas reduction rate		Unit : %
2013	2014	2015
26	29	**29**

Solar power generation		Unit : Mwh
2013	2014	2015
8.25	7.74	**7.83**

Geothermal power		Unit : Gcal
2013	2014	2015
0.28	6.82	**34.46**

Waste Reuse Rate at the Ulsan Plant Unit : %




Soil Contamination Monitoring

Air Pollutant Emissions Control

Our Tele-Monitoring System(TMS) keeps a close watch on air pollutants 24 hours a day, and any irregularities are dealt with immediately and appropriately according to the manual. There has been no ozone layer-depleting substance used or detected, and fugitive emissions are also managed. The Ulsan plant has established a 5-year reduction plan for volatile organic compounds and published a voluntary compliance report on air pollutant emissions reduction.

Management of Waste and Wastewater

Wastewater discharged from our plants is treated at a wastewater treatment plant within the facilities or retreated at a sewage treatment plant. SK Chemicals manages wastewater more strictly than the legal requirements. All wastes are treated in strict accordance with the International Basel Convention and Waste Management Act, and strict measures are taken to prevent secondary contamination. Design of Experiment(DOE) is applied to the entire process of product development so that the generation of byproducts and waste can be minimized.

Prevention of Soil Contamination

The soil around our plants are regularly monitored. Our pollution prevention facilities will be constantly upgraded in order to minimize the likelihood of soil contamination.

Noise and Odor Control

SK Chemicals complies with noise and smell standards and shares information on the issue with local communities. SK Chemicals conducted a survey on noise levels in the neighboring areas of our plants to check if the noise exceeds the legal standards. Silencers, sound-proof rooms, and activated charcoal adsorbing machines with capacity of 80Am³/min were installed as part of our efforts to reduce impact on the local communities.

Major Achievements and Goals of Environment Management(Green Triple 40!)

	2012	2013	2014	2015	2017	2020
Reducing CO_2 emissions by 40% [Unit : tCO_2eq, %]						
BAU emissions*	520,000	545,000	620,000	689,000	692,000	**722,000**
Target reduction	7.2	12.6	15.2	22.5	24.2	**40.0**
Actual emissions	467,163	481,396	520,034	585,402	-	**-**
Actual reduction	11.9	13.2	16.1	15.0	-	**-**
Strategy	Use Additional use of liquefied and gasified biomass	Use Additional use of liquefied and gasified biomass			Finding biomass energy sources continuously	
Sales of eco-friendly products by 40% [Unit : %]						
Target	17	19	22	25	30	**40.0**
Actual result	17.6	26.7	32.7	35.7**	-	**-**
40 hours of social contribution per employee [Unit : hour/person]						
Target	10	13	18	25	30	**40.0**
Actual result	2	8	8	8	-	**-**
Strategy***	Make social contribution a part of our regular corporate activities	Expand and promote social contribution across the Board of Directors	Develop sophisticated social contribution programs	Develop and implement team-based social contribution activities	Organize social contribution activities in which families of employees can get involved	Make social contribution activities a monthly routine

* **Standard for calculation of BAU emissions** : The expected amount of increased CO_2 each year from 2010 and amount of emissions by new establishment and expansion planned by 2015 are summed up(Emissions will significantly increase due to energy sales business in 2015)

** Eco-friendly sales accounted for a relatively higher portion of the total sales in 2015 because the total sales decreased

*** **Action plan to reach the target hours of social contribution per employee** : Programs will be developed on a continuing basis to meet the ambitious target

GHG Reduction and Energy Conservation

GHG Emission Management System

An IT-based GHG inventory system has been established to monitor and manage GHGs emitted from our Plants. The system allows SK Chemicals to manage energy effectively and respond to legal regulations imposed by the government including the Framework Act on Low-Carbon, Green Growth and its Enforcement Decree.

Responses to the Emissions Trading System

SK Chemicals has been designated as eligible for allocation of permit under the Emissions Trading System(ETS) that was launched in 2015 and assigned a fairly high target of a 15.4% reduction from its Business As Usual(BAU) level from 2015 to 2017. To meet this target, a company-wide, integrated management approach was taken. Specifically, emission reduction targets have been set for each of the plants, and emissions are closely monitored. ETS-related matters from making decisions to purchase emission permits have been systematically organized, and a company-specific emission factor is being developed. In addition, expanding the uses of biogas is under review, and ideas are being collected to incorporate eco-friendly emission alternatives into the daily conduct of our business aside from continuing with emission reduction efforts.

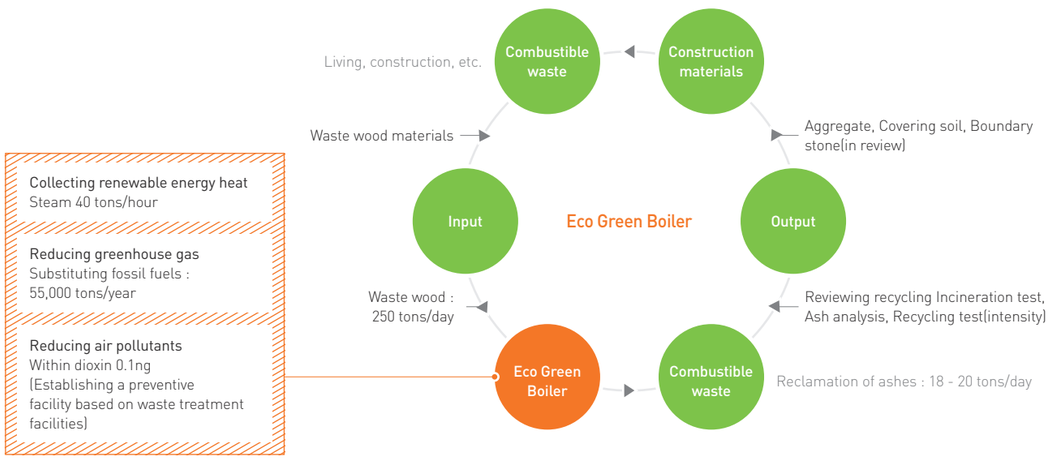
GHG Emission Reduction Activities and Results

The Ulsan plant, which generates 90% of GHG emissions, monitors the flow of GHGs specifically and consistently. Once the Steam Highway Project is launched, triggering sales of large amounts of steam, GHG emissions are expected to rise. With this outlook, we are constantly working out reduction strategies so that we can meet the allocated emissions quota under the Emissions Trading System that has been implemented since 2015.

Emission Reduction with Use of Bio Liquefied Oil

Using bio gases as fuel creates the double effects of reducing GHG emissions through the substitution of fossil fuels and eliminating GHG(methane) generated in the waste treatment process. For this reason, methane generated in the Yongyeon Sewage Treatment Plant in Ulsan City is collected and used as fuel for bunker-C oil boilers. Bio liquefied oil, a byproduct made in the process of producing biodiesel, is also used as fuel for eco-green boilers in the plant. In 2015, a total of 2,834 tons of bio liquefied oil was used, resulting in GHG reduction of 5,732tCO2eq compared to when diesel was used.

Operation Flow and Effects of Eco Green Boiler



GHG Emission Management System

2009	Ulsan plant
	GHG Inventory System
2011	Cheongju(S HOUSE) Plant
	GHG Management System
2013	Andong(L HOUSE) Plant
	Identified sources of GHG emissions and emission calculation method
2014	Andong(L HOUSE) Plant
	Managed GHG emissions associated with vaccine production and registered the sources
2015	All Plants
	Began to respond to Emission Trading System in earnest

Carbon Neutrality Management Plan and Revised Targets

SK Chemicals is increasing the use of non-fossil fuels with the introduction of carbon neutrality(no additional carbon emission caused by economic activities), which aims to generate zero GHGs or offset emissions by other activities. Initially, SK Chemicals targeted 100% carbon neutrality by 2020 based on an assessment of the financial impact and feasibility analysis, but the target has been revised to 2030, and the formula has been adjusted accordingly. The Ulsan plant, which accounts for more than 90% of SK Chemicals' entire emissions, plans to reach 50% carbon neutrality by 2020 and 100% by 2030. To meet the target, the plant is considering using Eco Green Boiler and working diligently to develop more biogases.

Carbon Neutrality Management Results

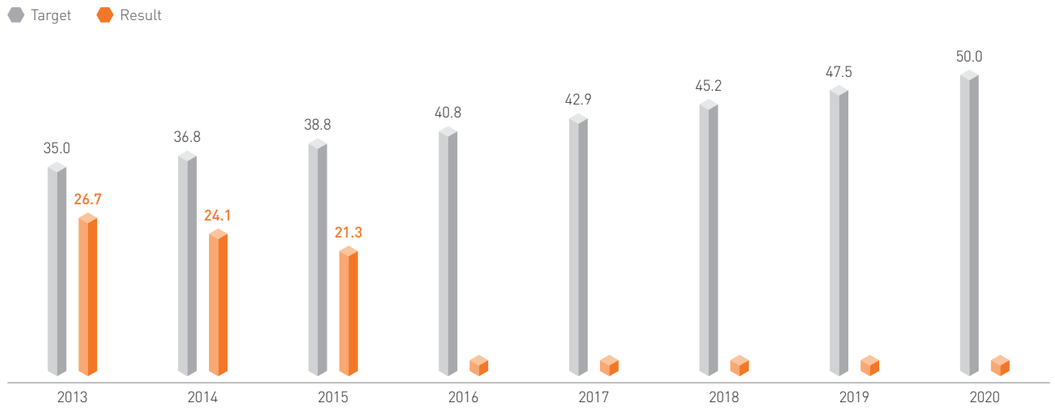
As part of our efforts to use less fossil fuels, we analyze the carbon neutrality data and try to improve carbon neutrality management techniques for the following year. We recorded a 21.3% carbon neutrality rate in 2015. This is attributed to the implementation of "Steam Highway" business. We are conducting carbon reduction activities such as the expansion of eco-friendly fuels and the increase of waste wood input.

Specific Reduction Activities in 2015

Substituting bituminous coal with waste wood	Substituting B-C with biogas for boilers	Substituting diesel with bio liquefied oil for boilers
97,503 tCO2eq	39,173 tCO2eq	5,732 tCO2eq

SK Chemicals' Annual Carbon Neutrality Targets

Unit : %



* **The formula for calculating the carbon neutrality rate has been changed(the new formula was used retroactively)**
- **Old formula** : Emission of carbon dioxide - Equivalent tons from use of biomass / total emissions
- **New formula** : (GHG emissions reduction from use of non-fossil fuels / total GHG emissions on a BAU basis) * 100

Social Contribution for Win-win and Shared Growth

Direction

Various social contribution programs are run to support the three pillars of our social contribution mission: eco-friendliness to protect the earth's environment, social welfare for the marginalized and disadvantaged class, and happiness through sharing culture and knowledge. In order to provide effective and substantial benefits, SK Chemicals works with experts and surveys the needs of stakeholders of local communities before planning activities and determines whether or not individual social contribution programs should be continued, based on objective data including participation rates and satisfaction levels.

Eco-Friendly Social Contribution Programs

A.cure(activities for protecting rivers)

'A.cure' is a word coined by combining 'Aqua' meaning water and 'Cure'. The name of the program suggests our strong commitment to keeping the environment clean and healthy by preserving rivers and creating a healthy ecosystem.

Green Point System

The Green Point System began in 2010 to encourage employees to engage in environment protection activities and spread the culture of social contribution. Employees can receive and donate points for their participation in eco-friendly activities, with the company contributing funds that match the donated points, which then are used to support social contribution programs. The program helps make environment management part of the corporate culture as it continues to evolve.

Environmental Education : Happy Green Class

Employees of SK Chemicals visit elementary schools and give lectures on environmental issues. Videos and various teaching materials are used to make lessons fun and teach students about environmental protection. So far, more than 6,300 students have participated in the program. All Plants of SK Chemicals including Osan(SK Plasma), Andong(L HOUSE), and Cheongju(S HOUSE) to introduce the program in 2016.

Prevention of Environmental Pollution in Areas Near Our Plants

Employees of the Ulsan plant visited Cheoyongam for cleaning and preservation activities(once) and Pyeongdong Village in Ganjeolgot for the preservation of the ecosystem(3 times), volunteered at the Yeocheon workshop for the physically challenged, and cleaned Yeocheon Stream(4 times). Employees of the Cheongju(S HOUSE) plant participate in the environment-cleaning activities in Bumo Mountain and Mushimcheon River and during the Arbor Day event at least twice a year.

Activities for Protecting Rivers

Joint Programs for the Headquarters and Affiliated Companies	Woonjung Stream Ecological Wetland
Ulsan Plant	Yeocheon Stream, Cheoyong Park, Ganjeolgot, Solmaru Path
Cheongju(S HOUSE) Plant	Mipyeongcheon

Social Contribution Programs for Social Welfare

Hope Maker

Hope Maker is a program intended to sponsor children and youths from low-income families in Korea and other countries and to provide them with mentoring aid. Over 1,710 employees from various teams of SK Chemicals worked with 14 local community centers located in the vicinity of their workplace and provided 160 children and youths with financial aid and opportunities to join cultural events. SK Chemicals sponsors more than 300 children in low-income countries via Compassion Korea, an international child advocacy group. Our support for children and youths who need it will be increased in 2016, and a survey will be conducted to assess how effective and satisfying the program is to ensure that social contribution activities are conducted in a more efficient manner.

Support for Silver Theater(social enterprise)

SK Chemicals has provided a total of 820 million won to Silver Theater, Korea's first movie theater exclusive for elderly viewers, since 2009. In addition, employees visit local seniors' community centers located in regional areas marginalized from cultural activities and welfare systems and play movies and performances through the program titled 'Visiting Silver Theater', to which local residents have responded positively.

Rice Farming for Love

In celebration of the approval and release of SKYCELLFLU, a cell culture-derived influenza vaccine, SK Chemicals planted colored rice on a 9,900m² area in cooperation with the city of Andong and donated 3 tons of rice harvested from the rice paddy for the disadvantaged class in Andong. SK Chemicals takes pride in playing a part in improving public health and social welfare by giving back the fruits of its technological innovations to the local community.

Blood Donation

All of our plants participated in a relay of blood donation to help relieve shortages of blood supply caused by the outbreak of MERS, thereby expediting recovery. The program, joined by 235 employees, took the form of a matching grant. In other words, when employees donate blood, the company donates Onnuri gift certificates that can be used for shopping at traditional marketplaces. In January 2016, around 140 employees from the head office donated blood and helped cope with shortages of blood supply.





Performances of Social Contribution Activities for Each Theme

Category	2014	2015	2016(planned)
Number of students participated in environmental education	1,500 persons	1,660 persons	1,800 persons
Ratio of subscription to Hope Maker	91.7%	92.0%	95.0%
SK Happiness Well Developing & Repairing	Developing 2 / Repairing 10 wells	-	Developing 2 / Repairing 10 wells
Number of audiences at Silver Theater	250,000 persons	200,000 persons	250,000 persons

Happiness-Spreading Social Contribution Programs

SK Probono Activity
SK Probono Program is a gift-sharing program run by the SK Group. Employees who have professional knowledge, skills, or qualifications share them for free with social enterprises and groups that need their help. Employees of SK Chemicals join the program by sharing with social enterprises the technology and know-how they have acquired from their job.

Voluntary Work by Plants
Volunteers have been recruited from across the company to organize a group, and they work together with local community centers in neighboring areas to prepare free meals for and deliver boxed lunches to elderly persons who live by themselves. They also participate in the programs run by the centers. In addition, they volunteer at rehabilitation facilities for the disabled in the local communities and wield a direct positive impact on the bottom line of the facilities.

SK Group 'Happiness Sharing Season' Voluntary Work
SK Chemicals' employees actively participate in the 'Happiness Sharing Season' program, a seasonal volunteer activity organized by the SK Group every November. More than 80 employees and other volunteers joined the Sharing Kimchi with Happiness and made a total of 4,000 kg of kimchi using approximately 2,000 heads of Napa cabbages. Volunteers had the kimchi delivered to elderly persons living alone and families of Hope Maker participant children via local community centers. The Happiness Sharing Bazaar organized a charity sale of SK Chemicals' products and items donated by employees to raise funds for children who cannot afford to buy lunch at the school cafeteria.




Social Contribution Programs Together with the Local Community

Support for Ulsan Plant's Sister Villages and Social Enterprises
The Ulsan plant maintains sisterhood relations with Geonam and Pyeongdong villages in Nam-gu, Ulsan and conducts a variety of activities to help the villages by identifying the needs of local residents. These activities include purchasing agricultural products from the farming villages, volunteering to help during busy farming seasons, running weekend farms jointly with the villages, and supporting village festivals and tours organized for elderly members of the village. Employees of the plant visit the Yeocheon Protected Workshop for the Disabled every month and perform volunteer activities including helping manufacture cotton gloves and clean the workshop environment.

'The Beautiful Hearts' Group', the Social Contribution Club of the Ulsan Plant
The social contribution club has been sponsoring the Green Umbrella Children's Foundation to help local children grow healthy. Ulsan plant works together with the foundation to organize various support programs.

SK-Affiliated Companies' Joint Social Contribution in Sungnam City
Five SK-affiliated companies operating in Sungnam City started joint social contribution programs in 2015 for maximum synergistic effects. Major activities include monthly environment cleaning in and around Woonjung Stream in Sungnam, 'Happy Songpyeon(a kind of rice cake)-Sharing Event on Chuseok' for low-income elderly persons in collaboration with 5 local community centers, and 'Duck Racing Event' in cooperation with Courtyard by Marriott to raise funds for the heating expenses of low-income families. Our support programs for the disadvantaged class in local communities will be further expanded in 2016 to maximize the effects of our social contribution activities.

G.rium Artist Award
The award, presented jointly by Platon Academy, seeks to nurture and sponsor talented young artists in the field of classical music. Cellist Mun Tae-guk was chosen as the recipient of the second G.rium Award in 2015. SK Chemicals will contribute to supporting the growth of talented classical artists and promoting a healthy social culture of sharing the universal value inherent in classical music by sponsoring the award recipients on a long-term basis.

APPENDIX

Statements of Financial Position

SK Chemicals Co., Ltd.

Unit : KRW

47th period As of December 31, 2015
46th period As of December 31, 2014
45th period As of December 31, 2013

Item	47th Period	46th Period	45th Period
Assets			
I. Current assets	**696,264,685,087**	625,451,085,374	677,638,720,410
Cash and cash equivalents	**251,035,758,788**	20,453,807,375	15,691,222,908
Account receivables and other bonds	**238,732,079,364**	322,892,199,745	385,891,893,941
Inventory	**200,142,049,313**	275,241,880,132	252,481,702,888
Other current assets	**6,050,792,622**	6,559,151,062	9,594,651,554
Non-current assets held for sale	**304,005,000**	304,047,060	13,979,249,119
II. Non-current assets	**1,857,874,905,573**	1,718,849,352,270	1,725,769,319,173
Long-term financial assets	**19,399,442,546**	14,571,242,771	14,938,439,505
Long-term loans	**154,148,493**	467,872,212	716,225,355
Deposits	**8,202,433,078**	9,594,195,620	9,889,643,700
Investment stocks for associates	**391,544,947,917**	409,670,947,917	455,213,369,891
Investment stocks for subsidiaries	**566,090,957,835**	403,393,311,320	372,265,420,691
Property	**745,118,213,735**	750,872,150,255	718,917,001,136
Intangible assets	**37,941,868,213**	33,411,422,627	38,393,473,290
Investment in properties	**88,928,313,756**	88,988,847,076	115,026,845,605
Other non-current assets	**494,580,000**	442,080,000	408,900,000
Deferred tax assets		7,437,282,472	
Total assets	**2,554,139,590,660**	2,344,300,437,644	2,403,408,039,583
Liabilities			
I. Current liabilities	**536,876,478,578**	515,005,385,157	648,375,977,495
Sales debt and other debts	**196,532,855,760**	160,978,402,326	231,013,897,297
Short-term borrowings	**106,202,361,948**	157,977,148,472	145,956,949,060
Long-term current borrowings	**212,546,047,297**	181,270,708,176	241,495,233,528
Corporate tax payables	**7,251,463,036**	1,319,982,085	6,561,250,728
Other current liabilities	**14,343,750,537**	13,459,144,098	23,348,646,882
II. Non-current liabilities	**769,727,721,799**	894,482,621,523	791,927,332,630
Bonds	**641,612,473,946**	765,077,845,521	608,351,350,224
Long-term borrowings	**87,791,485,957**	104,115,505,895	156,430,000,000
Defined benefit liabilities	**25,355,027,596**	24,455,946,859	23,738,204,217
Deferred tax liabilities	**14,062,931,162**		2,601,142,712
Allowance	**905,803,138**	833,323,248	806,635,477
Total liabilities	**1,306,604,200,377**	1,409,488,006,680	1,440,303,310,125
Capital			
Capital	**135,601,900,000**	118,300,860,000	118,300,860,000
Capital surplus	**326,127,554,604**	145,530,430,546	145,530,430,546
Other capital items	**(98,068,499,377)**	(98,068,499,377)	(98,068,499,377)
Accumulated other comprehensive income	**8,441,437,659**	4,325,109,810	2,370,977,641
Earned surplus	**875,432,997,397**	764,724,529,985	794,970,960,648
Total capital	**1,247,535,390,283**	934,812,430,964	963,104,729,458
Total liabilities and capital	**2,554,139,590,660**	2,344,300,437,644	2,403,408,039,583

Statements of Comprehensive Income

SK Chemicals Co., Ltd.

Unit : KRW

47th period from January 1, 2015 to December 31, 2015
46th period from January 1, 2014 to December 31, 2014
45th period from January 1, 2013 to December 31, 2013

Account	47th Period	46th Period	45th Period
Sales revenue	**1,039,863,882,327**	1,232,853,528,219	1,484,565,400,695
Cost of sales	**809,864,749,658**	951,757,923,103	1,170,887,086,595
Gross profit	**229,999,132,669**	281,095,605,116	313,678,314,100
SG&A	**211,508,923,998**	245,498,364,434	242,387,066,868
Operating income	**18,490,208,671**	35,597,240,682	71,291,247,232
Other profits	**190,802,324,092**	33,903,232,265	15,466,141,638
Other costs	**36,246,044,809**	62,282,824,314	16,861,466,216
Financial profits	**31,506,857,927**	21,986,520,559	21,955,941,684
Financial costs	**56,041,202,435**	53,665,614,297	52,272,033,054
Earnings before corporate taxes(loss)	**148,512,143,446**	(24,461,445,105)	39,579,831,284
Corporate tax profits(costs)	**28,562,157,103**	(4,333,195,648)	13,111,994,351
Net profit(loss)	**119,949,986,343**	(20,128,249,457)	26,467,836,933
Other comprehensive income	**1,142,735,868**	146,234,813	(3,310,802,904)
Items re-categorized as profits and losses for the current term subsequently	**4,116,327,849**	1,954,132,169	1,000,985,086
Profits for assessment of financial assets available for sale	**4,079,706,671**	2,018,942,000	936,175,255
Profits for assessment of derivatives(losses)	**36,621,178**	(64,809,831)	64,809,831
Items not re-categorized as profits and losses for the current term subsequently	**(2,973,591,981)**	(1,807,897,356)	(4,311,787,990)
Re-measured elements for defined benefit debts	**(2,973,591,981)**	(1,807,897,356)	(4,311,787,990)
Total comprehensive profits for the current term(losses)	**121,092,722,211**	(19,982,014,644)	23,157,034,029
Earnings per share			
Earnings per share for basic common share	**5,855**	(992)	1,289
Earnings per share for basic preferred share	**5,905**	(942)	1,339

Sustainability Management Performance Data

G4 - 9 Scale of the Organization_Manufactured Products

Product	Business Line	Unit	2013	2014	2015
PETG	Green Chemicals Business	ton	160,660	161,800	**161,207**
Biodiesel			140,986	141,609	**125,909**
Plasma derivatives	Life Science Business	bottle	1,226,733	1,270,850	**1,237,592**
Vaccines		dose	6,321,279	5,421,648	**4,813,692**
Fluids		kl	248	264	**292**
Tablets		tablet	743,672,004	434,988,552	**507,564,053**
Patches		patch	49,035,360	47,394,738	**39,726,554**

G4 - 9 Scale of the Organization_Sales by Business Line

Business	Products	Unit	2013	2014	2015
Green Chemicals Business	Biomaterials	KRW billion	189	247	**210**
	High-performance materials		59	59	**52**
	Composite materials		107	98	**68**
	Polyester resin		546	361	**317**
Life Science Business	Pharmaceuticals	KRW billion	-	-	**199**
	Vaccines		-	-	**120**
	New healthcare		-	-	**0.3**
Others		KRW billion	80	83	**74**
Total		KRW billion	1,485	1,233	**1,040**

G4 - 10 Total Number of Employees by Genders, Employment Type

Item	Classification	Scope	Unit	2013	2014	2015
No. of employees	Male	Company-wide	persons	1,369	1,538	**1,337**
	Female			388	320	**340**
No. of employees by employment type	Full-time	Company-wide	persons	1,636	1,640	**1,581**
	Contract-based			121	135	**96**
No. of directors	Male	Company-wide	persons	30	30	**37**
	Female			2	2	**2**

G4 - 10 Total Number of Employees by Plants

Category	Scope	Unit	2013	2014	2015
Male	Headquarters(Eco Lab)	persons	845	822	**766**
	Osan(SK Plasma)		68	66	**0**
	Ulsan		382	357	**353**
	Andong(L HOUSE)		66	99	**120**
	Cheongju(S HOUSE)		71	91	**98**
Female	Headquarters(Eco Lab)	persons	233	217	**230**
	Osan(SK Plasma)		33	31	**0**
	Ulsan		24	22	**20**
	Andong(L HOUSE)		25	30	**31**
	Cheongju(S HOUSE)		48	57	**59**
Full-time employees	Headquarters(Eco Lab)	persons	1,053	1,015	**966**
	Osan(SK Plasma)		83	90	**0**
	Ulsan		402	375	**372**
	Andong(L HOUSE)		61	78	**102**
	Cheongju(S HOUSE)		97	122	**141**
Contract-based employees	Headquarters(Eco Lab)	persons	25	24	**30**
	Osan(SK Plasma)		18	7	**0**
	Ulsan		4	4	**1**
	Andong(L HOUSE)		30	51	**49**
	Cheongju(S HOUSE)		22	26	**16**

G4 - 11 Employees Covered by Collective Bargaining Agreements

Category	Scope	Unit	2013	2014	2015
No. of employees covered by the labor union & labor-management council	Company-wide	persons	1,757	1,858	**1,677**
Ratio of employees covered by the labor union & labor-management council		%	100	100	**100**
No. of meetings convened by the labor union & labor-management council		meeting	4	4	**4**

G4 - 13 Total Number of Business Partners Managed

Category	Unit	2013	2014	2015
No. of business partners that are registered and managed	Business Partners	1,006	1,001	**957**
Total procurements from business partners	KRW billion	917	820	**627**

EC - 3 Coverage of the Organization's Defined Benefit Plan Obligations

Category	Scope	Unit	2013	2014	2015
Size of retirement pension plan (Defined benefit-DB)	Company-wide	KRW billion	73	84	**80**
No. of employees covered by the retirement pension plan(Defined benefit-DB)		persons	1,529	1,599	**1,642**

EC - 4 Financial Assistance Received from the Government

Category	Scope	Unit	2013	2014	2015
Government subsidiary	Company-wide	KRW billion	3	4	**0.7**
Tax exemption			6	9	**5**

EN - 1 Materials Used by Weight or Volume, EN - 2 Percentage of Materials Used That Are Recycled Input Materials

Category	Scope	Unit	2013	2014	2015
Volume of raw and subsidiary materials used	Osan(SK Plasma)	ton	613	614	**582**
	Ulsan		413,210	415,338	**406,193**
	Andong(L HOUSE)		-	163	**241**
	Cheongju(S HOUSE)		342	260	**377**
Volume of recycled raw and subsidiary materials used	Ulsan	ton	3,500	-	**-**

EN - 3 Power Generations Using Renewable Energy

Category	Scope	Unit	2013	2014	2015
Solar heat	Headquarters(Eco Lab)	MW	8.3	7.8	**7.8**
Geothermal heat		Gcal	2.6	41.6	**34.5**

EN - 3 Energy Consumption within Company

Category	Scope	Unit	2013	2014	2015
Coals	Company-wide	ton	159,577	169,316	**188,725**
B-A		kl	187	0	**0**
B-C		kl	0	0	**0**
Waste wood materials		ton	82,119	67,037	**66,644**
Gasoline		kl	80	66	**33**
Diesel		kl	159	140	**24**
Biodiesel		ton	0	0	**2,834**
Refined oil		ton	1,633	0	**0**
LNG		1000m³	15,660	16,008	**17,285**
LPG		ton	16	12	**46**
Biogas		1000m³	11,140	11,504	**10,152**
Electricity		MW	154,867	180,988	**153,379**
Heat		Gcal	6,404	4,636	**3,978**

EN - 4 Energy Consumption Outside Company

Category	Scope	Unit	2013	2014	2015
Electricity	Ulsan	TJ	2,310	1,681	**1,243**
Heat			3,347	2,386	**3,824**

EN - 8 Total Water Drawing and Consumption

Item	Scope	Unit	2013	2014	2015
Water consumption	Headquarters(Eco Lab)	ton	65,760	78,076	**68,812**
	Osan(SK Plasma)		67,550	54,180	**52,025**
	Ulsan		7,076,053	6,472,319	**6,068,847**
	Andong(L HOUSE)		-	128,114	**119,839**
	Cheongju(S HOUSE)		53,588	46,540	**49,467**

EN - 10 Total Water Drawing and Consumption from Underground, Recycled, and Reused

Item	Scope	Unit	2013	2014	2015
Total volume of water drawn from underground, recycled, and reused	Headquarters(Eco Lab)	ton	4,882	3,612	**3,060**
	Osan(SK Plasma)		29,920	14,112	**18,059**
	Ulsan		3,946,126	3,781,238	**3,558,774**

EN - 15 Direct GHG(Scope1) Emissions, EN - 16 Indirect GHG(Scope2) Emissions

Item	Scope	Unit	2013	2014	2015
Scope1 emissions	Company-wide	tCO_2eq	408,424	434,964	**513,216**
Scope2 emissions			72,975	85,070	**72,187**

EN - 18 GHG Emission Intensity

Item	Scope	Unit	2013	2014	2015
Scope1 intensity ratio	Company-wide	tCO_2eq / KRW billion	2.8	3.5	**4.9**
Scope2 intensity ratio			0.5	0.7	**0.7**

EN - 19 Reduction of GHG Emissions_Progress with Green Triple 40!(Reducing CO_2 emissions by 40%)

Item	Unit	2013	2014	2015
BAU emissions	tCO_2eq	545,000	620,000	**689,000**
Target reduction	%	12.6	15.2	**36.7**
Actual emissions	tCO_2eq	481,396	520,034	**585,402**
Actual reduction	%	13.2	16.1	**15.0**
Strategy	-	Increase volumes of biomass used, in liquid, gas, and solid forms	Increase volumes of biomass used, in liquid, gas, and solid forms	**Increase volumes of biomass used, in liquid, gas, and solid forms**

EN - 21 Intensity of Air Pollutants Discharged

Item	Scope	Unit	2013	2014	2015
Dust	Osan(SK Plasma)	ppm	10	10	**9**
	Ulsan		4	4	**4**
	Andong(L HOUSE)		-	0	**-**
	Cheongju(S HOUSE)		6	5	**4**
SOx	Osan(SK Plasma)	ppm	0	0	**0**
	Ulsan		41	29	**28**
	Andong(L HOUSE)		-	0	**-**
	Cheongju(S HOUSE)		0	0	**0**
NOx	Osan(SK Plasma)	ppm	0	0	**0**
	Ulsan		61	55	**57**
	Andong(L HOUSE)		-	0	**-**
	Cheongju(S HOUSE)		0	0	**92**
VOC	Osan(SK Plasma)	ppm	0	0	**0**
	Ulsan		9	9	**0**
	Andong(L HOUSE)		-	0	**-**
	Cheongju(S HOUSE)		0	0	**0**

EN - 22 Total Water Discharge

Item	Scope	Unit	2013	2014	2015
Water discharge	Headquarters(Eco Lab)	ton	22,957	36,291	**26,837**
	Osan(SK Plasma)		39,420	37,831	**36,078**
	Ulsan		694,519	771,610	**640,040**
	Andong(L HOUSE)		-	79,052	**75,152**
	Cheongju(S HOUSE)		31,916	28,449	**31,738**

EN - 22 Intensity of Water Pollutants Discharged

Item	Scope	Unit	2013	2014	2015
BOD	Osan(SK Plasma)	ppm	3	2	**4**
	Ulsan		4	3	**3**
	Andong(L HOUSE)		-	101	**126**
	Cheongju(S HOUSE)		36	2	**1**
COD	Osan(SK Plasma)	ppm	7	2	**7**
	Ulsan		13	12	**12**
	Andong(L HOUSE)		-	58	**54**
	Cheongju(S HOUSE)		53	18	**13**
SS	Osan(SK Plasma)	ppm	25	4	**9**
	Ulsan		4	2	**2**
	Andong(L HOUSE)		-	110	**41**
	Cheongju(S HOUSE)		25	6	**5**

EN - 23 Total Waste by Type

Category	Scope	Unit	2013	2014	2015
Amount of generated regular waste	Osan(SK Plasma)	ton	106	145	**80**
	Ulsan		32,816	29,229	**27,438**
	Andong(L HOUSE)		-	54	**79**
	Cheongju(S HOUSE)		12	137	**162**
Amount of generated designated waste	Osan(SK Plasma)	ton	56	107	**108**
	Ulsan		19,180	4,944	**4,759**
	Andong(L HOUSE)		-	45	**53**
	Cheongju(S HOUSE)		1,169	1,543	**1,733**

EN - 23 Total Waste by Disposal Method

Category	Scope	Unit	2013	2014	2015
Incineration	Osan(SK Plasma)	ton	101	132	**179**
	Ulsan		311	368	**173**
	Andong(L HOUSE)		-	100	**107**
	Cheongju(S HOUSE)		1,209	1,596	**1,861**
Reclamation	Osan(SK Plasma)	ton	36	24	**0**
	Ulsan		6,948	5,460	**8,621**
	Andong(L HOUSE)		-	0	**0**
	Cheongju(S HOUSE)		68	37	**18**
Recycling	Osan(SK Plasma)	ton	48	49	**45**
	Ulsan		37,904	23,702	**18,644**
	Andong(L HOUSE)		-	0	**25**
	Cheongju(S HOUSE)		56	69	**79**
Marine emissions	Osan(SK Plasma)	ton	0	0	**0**
	Ulsan		6,831	6,831	**0**
	Andong(L HOUSE)		-	0	**0**
	Cheongju(S HOUSE)		0	0	**0**
Recycling ratio	Osan(SK Plasma)	%	30	19	**0**
	Ulsan		73	69	**68**
	Andong(L HOUSE)		-	0	**19**
	Cheongju(S HOUSE)		5	4	**4**

EN - 24 Total Use Amounts of Hazardous Chemicals

Item	Scope	Unit	2013	2014	2015
Total Use Amounts of hazardous chemicals	Ulsan	ton	33,637	36,998	**33,355**

EN - 27 Ratio of Eco-friendly Products Sales_Progress with Green Triple 40!(Sales of eco-friendly products by 40%)

Category	Unit	2013	2014	2015	2017	2020
Target of eco-friendly sales	%	19.0	22.0	25.0	30.0	**40.0**
Actual eco-friendly sales		26.7	32.7	35.7	-	**-**

EN - 30 Significant Environmental Impacts of Transporting Employees

Category	Scope	Unit	2013	2014	2015
Energy use (petroleum)	Headquarters(Eco Lab)	GJ	-	-	**325**
	Osan(SK Plasma)		-	-	**Unmeasured data**
	Ulsan		-	-	**426**
	Andong(L HOUSE)		-	-	**289**
	Cheongju(S HOUSE)		-	-	**79**
Total			2,592	2,322	**1,119**
GHG emissions from use of petroleum	Headquarters(Eco Lab)	tCO_2eq	-	-	**20**
	Osan(SK Plasma)		-	-	**Unmeasured data**
	Ulsan		-	-	**29**
	Andong(L HOUSE)		-	-	**19**
	Cheongju(S HOUSE)		-	-	**0**
Total			174	156	**67**
Energy consumption (diesel)	Headquarters(Eco Lab)	GJ	-	-	**204**
	Osan(SK Plasma)		-	-	**Unmeasured data**
	Ulsan		-	-	**85**
	Andong(L HOUSE)		-	-	**56**
	Cheongju(S HOUSE)		-	-	**551**
Total			3,249	835	**896**
GHG emissions from use of diesel	Headquarters(Eco Lab)	tCO_2eq	-	-	**14**
	Osan(SK Plasma)		-	-	**Unmeasured data**
	Ulsan		-	-	**6**
	Andong(L HOUSE)		-	-	**4**
	Cheongju(S HOUSE)		-	-	**4**
Total			229	59	**28**

EN - 31 Total Environmental Expenditures and Investments

Scope	Unit	2013	2014	2015
Headquarters(Eco Lab)	KRW billion	0	0	**0**
Osan(SK Plasma)		0	0	**0**
Ulsan		0	0	**1.7**
Andong(L HOUSE)		0	0	**0.1**
Cheongju(S HOUSE)		0	0	**0**
Total		6.4	0.2	**0**

LA - 1 Total Number and Rates of New Employee Hires and Employee Turnover

Category		Scope	Unit	2013	2014	2015
No. of new employees hired	Male	Company-wide	persons	225	162	**129**
	Female			70	40	**50**
No. of employees who left the company		Company-wide	persons	139	197	**127**
Turnover rate		Company-wide	%	7.3	11	**7.6**

LA - 3 The Number of Maternity Leave Use and Return to Work after Maternity Leave

Category	Scope	Unit	2013	2014	2015
Male	No. of employees who took a maternity leave	persons	0	0	**1**
	No. of employees who returned after a maternity leave		0	0	**0**
Female	No. of employees who took a maternity leave	persons	25	20	**32**
	No. of employees who returned after a maternity leave		12	14	**15**

LA - 6 Type of Injury, Occupational Diseases, Lost Days, and Absenteeism, Total Number of Work-related Fatalities

Category	Scope	Unit	2013	2014	2015
Number of accidents	Company-wide	case	3	1	**0**
Death toll			0	0	**0**
Number of lost days		day	160	0	**0**

LA - 7 Workers with High incidence or High Risk of Diseases related to Their Occupation

Category	Scope	Unit	Eligible employees	Employees who underwent medical checkup	Employees who did not undergo medical checkup
Comprehensive medical checkup	Headquarters(Eco Lab)	persons	442	437	5
	Osan(SK Plasma)		43	43	0
	Ulsan		359	356	3
	Andong(L HOUSE)		115	115	0
	Cheongju(S HOUSE)		39	39	0
General medical checkup	Headquarters(Eco Lab)	persons	639	636	3
	Osan(SK Plasma)		49	49	0
	Ulsan		359	359	0
	Andong(L HOUSE)		115	115	0
	Cheongju(S HOUSE)		104	104	0
Special medical checkup	Headquarters(Eco Lab)	persons	133	133	0
	Osan(SK Plasma)		33	33	0
	Ulsan		235	235	0
	Andong(L HOUSE)		110	110	0
	Cheongju(S HOUSE)		106	106	0

LA - 9 Training Hours and Investments for Employees

Category	Scope	Unit	2013	2014	2015
Annual average training hours per employee	Company-wide	hour	164	160	**297**
Total amount of investments in employee training		KRW billion	4	4	**3**

LA - 11 The Ratio of Employees Receiving Regular Performance Review

Category	Scope	Unit	2013	2014	2015
No. of employees eligible for regular performance review	Company-wide	persons	1,130	1,165	**1,148**
No. of employees who received regular performance review			1,063	1,104	**1,108**
Ratio of employees who received performance review		%	94.10%	94.80%	**96.50%**

LA - 12 Composition of Employees_Diversity of Employees

Category	Scope	Unit	2013	2014	2015
No. of disabled employee hired	Company-wide	persons	12	15	**27**
No. of patriots and veterans hired			37	37	**37**
No. of foreigners hired			3	3	**7**

SO - 1 Local Community Engagement, Impact Assessments, and Develop Programs

Category	Content	Unit	2013	2014	2015
Cost of social contribution activities	Cost of social contribution activities	KRW billion	1.8	1.8	**1.8**
Volunteer activities	No. of employee volunteers	persons	1,592	1,659	**1,671**
	No. of volunteering hours per employee	hour	8	8	**8**

SO - 7 Legal actions for Anti-Competitive Behavior, Anti-Trust, and Monopoly Practices
SO - 8 Significant Fines and Non-Monetary Sanctions for Noncompliance with Laws and Regulations

- SK Chemicals was declared to be in violation of Article 11-4(Disclosures on Status of Business Conglomerates, etc.) of the Monopoly Regulation and Fair Trade Act on March 31, 015 and ordered to pay a fine of 4 million won pursuant to Article 69-2 of the same Act, and the company paid up accordingly. SK Chemicals is taking steps to prevent the recurrence of such violation in the future.
- On November 3, 2015, SK Chemicals was ordered by the Ministry of Food and Drug Safety to suspend the production of SKYCELLFLU prefilled syringe for 2 months due to insufficient hemagglutinin content
  (Legal basis : Article 62 of the Pharmaceutical Affairs Act; production suspension period: November 11, 2015 – January 10, 2016)

SO - 11 Number of Grievances regarding Impacts on Society filed, Addressed, and Resolved through Formal Grievance Mechanisms

Category	Unit	2013	2014	2015
No. of grievances filed in 2015	case	0	0	**0**
No. of grievances resolved in 2015		0	0	**0**

PR - 8 Total Number of Substantiated Complaints regarding Breaches of Customer Privacy and Loss of Customer Data

Category	Unit	2013	2014	2015
No. of customer data(including personal information) stolen	case	0	0	**0**
No. of customer data(including personal information) lost		0	0	**0**

GRI - G4 Index

General Standard Disclosures

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Organizational profile			
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G4 - 6	Number of countries where the organization operates, names of countries with either major operations or which are specifically relevant to the sustainability issues covered in the report		4 - 5
G4 - 7	Nature of ownership and legal form		4 - 5
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G4 - 11	Percentage of employees covered by collective bargaining agreements	SDG.08	71
G4 - 12	Organization's supply chain		57
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G4 - 15	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses		78 - 81, 84
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G4 - 36	Whether the organization has appointed an executive-level position or some positions with responsibility for economic, environmental, and social topics, and whether reporting post hoc directly to the highest governance body		54 - 55
G4 - 37	Process of consultation between stakeholders and highest governance body on economic, environment, and social topics; if consultation is elegated, to whom and any feedback processes to the highest governance body	SDG.16	54 - 55
G4 - 38	Composition of the highest governance body and its committees(Executives or non-executives, Independence, Tenure on the governance body, Number of each individual's other significant opposition and commitments and nature of the commitments, Gender, Memberships of underrepresented social groups, Competences related to economic, environmental, and social impacts, Stakeholder representation)	SDG.05, SDG.16	54 - 55
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G4 - 40	Nomination and selection processes for the highest governance body and its committees, criteria used for nominating and selecting the highest governance body members(Whether and how diversity is considered, Whether and how independence is considered, Whether and how expertise and experience related to economic, environmental, and social topics are considered, Whether and how stakeholders are involved)	SDG.05, SDG.16	54 - 55
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G4 - 53	How stakeholders' views are sought and taken into account with regard to remuneration(if applicable)	SDG.16	SK Chemicals' Business Report for the 47th Period (pp.274-275)
G4 - 54	Ratio of the annual total compensation for the organization's highest paid individual in each country of significant operations to the median annual total compensation for all employees(excluding the highest paid individual) in the same country		
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G4 - 57	Internal and external mechanisms for seeking advice on ethical and lawful behavior, matters related to organizational integrity	SDG.16	32 - 33
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G4 - EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	SDG.02, SDG.05, SDG.07, SDG.08, SDG.09	60
G4 - EC3	Coverage of the organization's defined benefit plan obligations	SDG.13	71
G4 - EC4	Financial assistance received from government		71
Market conditions DMA(Disclosures on Management Approach)			-
G4 - EC5	Ratios of standard entry-level wage by gender compared to the local minimum wage at major locations of operation	SDG.01, SDG.05, SDG.08	46
G4 - EC6	Proportion of senior management hired from the local community at major locations of operation	SDG.08	-
Indirect economic impacts DMA(Disclosures on Management Approach)			-
G4 - EC7	Development and impact of infrastructure investments and services supported	SDG.02, SDG.05, SDG.07, SDG.09, SDG.11	16 - 17, 24 - 25
G4 - EC8	Significant indirect economic impacts, including the extent of impacts	SDG.01, SDG.02, SDG.03, SDG.08, SDG.10, SDG.17	57, 63
Procurement Procedures DMA(Disclosures on Management Approach)			-
G4 - EC9	Proportion of spending on local suppliers at major locations of operation	SDG.12	57

Category : Environments

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G4 - EN2	Percentage of used materials that are recycled as input materials	SDG.08, SDG.12	59
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G4 - EN3	Energy consumption within the organization	SDG.07, SDG.08, SDG.12, SDG.13	75
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G4 - EN5	Energy intensity	SDG.07, SDG.08, SDG.12, SDG.13	-
G4 - EN6	Reduction of energy consumption	SDG.07, SDG.08, SDG.12, SDG.13	60
G4 - EN7	Reductions in energy requirements of products and services	SDG.07, SDG.08, SDG.12, SDG.13	-
Water Resources DMA(Disclosures on Management Approach)			-
G4 - EN8	Total water drawing by source	SDG.06	72
G4 - EN9	Water sources significantly affected by drawing of water	SDG.06	No water source significantly affected
G4 - EN10	Percentage and total volume of water recycled and reused	SDG.06, SDG.08, SDG.12	72
Biodiversity DMA(Disclosures on Management Approach)			-
G4 - EN11	Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside the protected areas	SDG.06, SDG.14, SDG.15	-
G4 - EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside the protected areas	SDG.06, SDG.14, SDG.15	-
G4 - EN13	Habitats protected or restored	SDG.06, SDG.14, SDG.15	62
G4 - EN14	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	SDG.06, SDG.14, SDG.15	-
Emission DMA(Disclosures on Management Approach)			-
G4 - EN15	Direct greenhouse gas(GHG) emissions(Scope 1)	SDG.03, SDG.12, SDG.13, SDG.14, SDG.15	72
G4 - EN16	Energy indirect greenhouse gas(GHG) emissions(scope 2)	SDG.03, SDG.12, SDG.13, SDG.14, SDG.15	72
G4 - EN17	Other indirect greenhouse gas emissions(SCOPE 3)	SDG.03, SDG.12, SDG.13, SDG.14, SDG.15	-
G4 - EN18	Energy indirect greenhouse gas(GHG) emissions(scope 2)	SDG.13, SDG.14, SDG.15	72
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G4 - EN20	Emissions of ozone-depleting substances	SDG.03, SDG.12	59
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G4 - EN23	Total weight of waste by type and disposal method	SDG.03, SDG.06, SDG.12	59, 74
G4 - EN24	Total frequency and volume of significant spills	SDG.03, SDG.06, SDG.12, SDG.14, SDG.15	41
G4 - EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, percentage of transported waste shipped internationally	SDG.03, SDG.12	Not applicable
G4 - EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	SDG.06, SDG.14, SDG.15	Not applicable
Products and Services DMA(Disclosures on Management Approach)			-
G4 - EN27	Extent of mitigation of environmental impacts of products and services	SDG.06, SDG.08, SDG.12, SDG.13, SDG.14, SDG.15	17, 25, 74
G4 - EN28	Percentage of products sold and their packaging materials, which are reclaimed by category	SDG.08, SDG.12	58
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G4 - EN29	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations	SDG.16	56
Transport DMA(Disclosures on Management Approach)			-
G4 - EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, transporting members of the workforce	SDG.11, SDG.12, SDG.13	-
Overall DMA(Disclosures on Management Approach)			-
G4 - EN31	Total environmental protection expenditures and investments by type	SDG.07, SDG.09, SDG.12, SDG.13, SDG.14, SDG.15, SDG.17	75
Supplier Environmental Assessment DMA(Disclosures on Management Approach)			-
G4 - EN32	Percentage of new suppliers that were screened using environmental criteria		-
G4 - EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken		-
Environmental Grievance Mechanisms DMA(Disclosures on Management Approach)			-
G4 - EN34	Number of grievances regarding environmental impacts filed, addressed, and resolved through formal grievance mechanisms	SDG.16	59

Category : Labor

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G4 - LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major locations of operation	SDG.08	47 - 49
G4 - LA3	Return to work and retention rates after parental leave, by gender	SDG.05, SDG.08	48, 76
Labor-management relations DMA(Disclosures on Management Approach)			42 - 42
G4 - LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	SDG.08	47
Occupational health and safety DMA(Disclosures on Management Approach)			36 - 37
G4 - LA5	Percentage of total workforce represented in the formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs	SDG.08	39
G4 - LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, total number of work-related fatalities, by region and by gender	SDG.03, SDG.08	76
G4 - LA7	Workers with high incidence or high risk of diseases related to their occupation	SDG.03, SDG.08	39 - 40, 76
G4 - LA8	Health and safety topics covered in formal agreements with trade unions	SDG.08	38 - 39
Training and education DMA(Disclosures on Management Approach)			42 - 43
G4 - LA9	Average hours of training per year per employee by gender, by employee	SDG.04, SDG.05, SDG.08	44 - 45, 76
G4 - LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	SDG.08	44 - 45
G4 - LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	SDG.05, SDG.08	77
Diversity and equal opportunity DMA(Disclosures on Management Approach)			42 - 43
G4 - LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	SDG.03, SDG.08	46, 54, 77
Equal remuneration for women and men DMA(Disclosures on Management Approach)			42 - 43
G4 - LA13	Ratio of basic salary and remuneration of women to men by employee category, by major locations of operation	SDG.05, SDG.08	46
Supplier Assessment for labor practices DMA(Disclosures on Management Approach)			-
G4 - LA14	Percentage of new suppliers that were screened using labor practices criteria	SDG.03, SDG.08	-
G4 - LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	SDG.05, SDG.08	-
Labor practices grievance mechanisms DMA(Disclosures on Management Approach)			-
G4 - LA16	Number of grievances regarding labor practices filed, addressed, and resolved through formal grievance mechanisms	SDG.03, SDG.08	-

Category : Human Rights

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Investments DMA(Disclosures on Management Approach)			-
G4 - HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or which underwent human rights screening	SDG.05, SDG.08	-
G4 - HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights relevant to operations, including the percentage of employees trained	SDG.08	-
Non-discrimination DMA(Disclosures on Management Approach)			-
G4 - HR3	Total number of incidents of discrimination and corrective actions taken	SDG.08, SDG.16	-
Freedom of association and collective bargaining DMA(Disclosures on Management Approach)			42 - 43
G4 - HR4	Operations and suppliers identified wherein the right to exercise freedom of association and collective bargaining may be violated or at significant risk, measures taken to support these rights	SDG.08	47, 71
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G4 - HR5	Operations and suppliers identified as having significant risk for incidents of child labor, measures taken to contribute to the effective abolition of child labor	SDG.08, SDG.16	-
Forced labor DMA(Disclosures on Management Approach)			-
G4 - HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, measures to contribute to the elimination of all forms of forced or compulsory labor	SDG.08	-
Security practices DMA(Disclosures on Management Approach)			-
G4 - HR7	Percentage of security personnel trained in the organization's human rights policies or procedures relevant to operations	SDG.16	-
Indigenous rights DMA(Disclosures on Management Approach)			-
G4 - HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	SDG.02	77
Assessment DMA(Disclosures on Management Approach)			-
G4 - HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments		-
Supplier Human Rights Assessment DMA(Disclosures on Management Approach)			-
G4 - HR10	Percentage of new suppliers that were screened using human rights criteria		-
G4 - HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken		-
Human Rights Grievance Mechanisms DMA(Disclosures on Management Approach)			-
G4 - HR12	Number of grievances regarding human rights impacts filed, addressed, and resolved through formal grievance mechanisms	SDG.16	-

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G4 - SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs		63
G4 - SO2	Operations with significant actual and potential negative impacts on local communities; 77 No business sites having negative impact	SDG.01, SDG.02	63 - 65
Anti-corruption DMA(Disclosures on Management Approach)			42 - 43
G4 - SO3	Number of grievances regarding human rights impacts filed, addressed, and resolved through formal grievance mechanisms	SDG.16	No human rights grievance has been filed
G4 - SO4	Communication and training on anti-corruption policies and procedures	SDG.16	33
G4 - SO5	Confirmed incidents of corruption and actions taken	SDG.16	None
Public Policy DMA(Disclosures on Management Approach)			-
G4 - SO6	Total value of political contributions by country and recipient/beneficiary	SDG.16	-
Anti-competitive behavior DMA(Disclosures on Management Approach)			31 - 32
G4 - SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	SDG.16	77
Compliance DMA(Disclosures on Management Approach)			30 - 31
G4 - SO8	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations	SDG.16	77
Supplier assessment for impacts on society DMA(Disclosures on Management Approach)			-
G4 - SO9	Percentage of new suppliers that were screened using criteria for impacts on society		-
G4 - S10	Significant actual and potential negative impacts on society in the supply chain and actions taken		-
Grievance mechanisms for impacts on society DMA(Disclosures on Management Approach)			-
G4 - S11	Number of grievances regarding impacts on society filed, addressed, and resolved through formal grievance mechanisms	SDG.16	-

Category : Product Responsibility

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Customer health and safety DMA(Disclosures on Management Approach)			30 - 31
G4 - PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement		17, 25
G4 - PR2	Total number of incidents of noncompliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	SDG.16	77
Product and service labeling DMA(Disclosures on Management Approach)			30 - 31
G4 - PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, percentage of significant product and service categories subject to such information requirements	SDG.12	34 - 35
G4 - PR4	Total number of incidents of noncompliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	SDG.16	77
G4 - PR5	Results of surveys measuring customer satisfaction		35
Marketing communications DMA(Disclosures on Management Approach)			-
G4 - PR6	Sale of banned or disputed products		-
G4 - PR7	Total number of incidents of noncompliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	SDG.16	-
Customer privacy DMA(Disclosures on Management Approach)			30 - 31
G4 - PR8	Total number of substantiated complaints regarding breaches of customer privacy and loss of customer data	SDG.16	33, 77
Compliance DMA(Disclosures on Management Approach)			30 - 31
G4 - PR9	Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services	SDG.16	77

17 Sustainable Development Goals(SDGs)

SDG 01 **No Poverty**

SDG 02 **Zero Hunger**

SDG 03 **Good Health and Well-Being**

SDG 04 **Quality Education**
Guarantee education opportunities and provide lifelong education

SDG 05 **Gender Equality**
Enhance gender equality and women's rights

SDG 06 **Clean Water and Sanitation**
Sustainability Management of sustainable water resources and sanitation

SDG 07 **Affordable and Clean Energy**

SDG 08 **Decent Work and Economic Growth**

SDG 09 **Industry Innovation and Increased Restoration Capability**

SDG 10 **Reduced Inequalities**
Reduce inequalities at home and abroad

SDG 11 **Sustainable Cities and Communities**
Create sustainable living and residential spaces

SDG 12 **Responsible Consumption & Production**
Build a sustainable culture of production and consumption

SDG 13 **Climate Action**

SDG 14 **Life below Water**

SDG 15 **Life on Land**
Preserve biodiversity, prevent desertification and create ecological cycle

SDG 16 **Peace, Justice and Strong Institutions**

SDG 17 **Partnerships for the Goals**
Strengthen cooperation and partnership for sustainable growth

Independent Assurance Statement

Introduction

SK Chemicals Co., Ltd.("SK Chemicals") commissioned DNV GL Business Assurance Korea Ltd.("DNV GL"), part of DNV GL Group, to undertake independent assurance of 'SK chemicals Sustainability Report 2015'(the "Report"). The directors of SK Chemicals have sole responsibility for the preparation of the Report. The responsibility of DNV GL in performing the assurance work is to the management of SK Chemicals in accordance with the terms of reference. DNV GL's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been prepared in good faith.

Scope of assurance

The scope of assurance includes a review of sustainability activities and performance data over the reporting period ending on 31st December 2015. This also includes :

- Evaluation of the principles for defining the sustainability report content in the Global Reporting Initiative(GRI) Sustainability Reporting Guidelines 4.0
- Verification of disclosures to check the Report is prepared 'In accordance' with the GRI Guidelines G4 (Core option)(Aggregated level of data that refers to the period between January and December in 2015)
- Evaluation of the process for determining material aspects for reporting and the management approach to material issues and the process for generating, gathering and managing the quantitative and qualitative data in the Report

Basis of our opinion

We have performed our work using DNV GL's assurance protocol, VeriSustain™[1] , which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements 3000(ISAE 3000). We applied the limited level of assurance. The audit was carried out in April through May 2016. The site visits were made to SK Chemicals Head quarter in Gyeonggi-do and Ulsan Factory. We undertook the following activities as part of the assurance process :

1) The VeriSustain protocol is available upon request at www.dnvgl.com/assurance/reporting/verification.html

- Challenged the sustainability-related statements and claims made in the Report on a sampling basis and assessed the robustness of the underlying data management system, information flow and controls;
- Interviewed representatives from the various departments;
- Conducted document reviews, data sampling and interrogation of supporting databases and associated reporting system and associated reporting systems as they relate to selected content and performance data;
- Reviewed the materiality assessment report

Limitations

The engagement excludes the sustainability management, performance and reporting practices of SK Chemicals' associated companies, subsidiaries, suppliers, contractors and any third-parties mentioned in the Report. DNV GL did not interview external stakeholders as part of this Assurance Engagement. Economic performance based on the financial data is cross-checked with internal documents, the audited consolidated financial statements and the announcement disclosed at the website of Korea Financial Supervisory Service(http://dart.fss.or.kr). These documents including financial statements and the announcements are not included in the scope of Assurance Engagement. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. The baseline data for Environmental and Social performance are not verified, while the aggregated data at the corporate level are used for the verification. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

Opinion and Observation

On the basis of the work undertaken, nothing has come to our attention to believe that the Report does not properly describe the adherence to the Principles for defining report content in GRI G4. Further opinions with regards to the adherence to the following Principles are made below;

Stakeholder Inclusiveness
SK Chemicals has identified internal and external stakeholder groups such as Shareholders and Investors, Customers, Employees, Suppliers, Government and Local Communities. SK Chemicals engages with the stakeholders at the company and business unit levels through various channels and identified key issues, and understand their impact on one another.

Sustainability Context
The report covers the sustainable development situation such as risks and opportunities analysis and social importance. SK Chemicals' performance in aspects of economy, environment and social can be found in the report.

Materiality
The materiality determination process is presented in the Report. The relevant issue pool is formed from the various information(GRI guideline, ISO 26000, Industry specialization index(DJSI), Media research, Benchmarking, Internal sustainability issues). The issues in the pool were rated by combining internal and external interest.

Completeness
The report covers economic, environmental and social impacts of sustainability scope and offers information about the results of activities and decisions of organization for the key issues of sustainability aspects during the reporting period.

Opportunity for improvement

The following is an excerpt from the observations and opportunities reported to SK Chemicals' management. However, it does not affect our conclusions on the Report, but is provided to encourage continual improvement.

- This 2015 report mainly covers the performance of 2015, since the report has been issued annually. However, it is important to report the emerged important social issue, in a timely manner so that the information is available in time for stakeholders to make informed decisions.
- Stakeholder engagement process and materiality determination process has been conducted with the assistance of external experts, it is recommended to integrate them into the organization's own processes and operated effectively and consistently.

Competence and Independence

DNV GL Business Assurance is part of DNV GL Group and a global provider of certification, verification, assessment and training services, helping customers to build sustainable business performance. Our environmental and social assurance specialists are present in over 100 countries. The assurance work was performed by independent team which meets DNV GL's competence requirements. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement.

23 May 2016
Seoul, Korea

Country Representative **In Kyoon Ahn**
DNV GL Business Assurance Korea Ltd.

Sustainability Report Summary

This 5th sustainability report published by SK Chemicals addresses 3 core aspects of Sustainability Management by examining the list of issues identified, based on analysis of internal management conditions and external business conditions and input from stakeholders. The report explains the rationale behind the selection of core aspects, risks, and opportunities associated with major issues, key policies, activities, and achievements. More details are available in the relevant sections of the report.

Reporting Period & Cycle
The reporting period is from January 1 to December 31, 2015, and data for 2013 and 2014 were also provided in some cases for time-series comparison. SK Chemicals has been reporting activities and achievements of Sustainability Management since 2012, with the report last updated in July 2015.

Reporting Scope
The scope of the report includes SK Chemicals' domestic operations including the head office, research institutes, and plants in Osan(SK Plasma), Ulsan, Andong(L HOUSE), and Cheongju(S HOUSE). It is indicated when the reporting scope is different.

Reporting Principles
The report has been prepared according to the GRI G4 Guidelines-In accordance with 'Core' Option, and a materiality test was conducted to determine the content to be included in the report. Financial data in this report were prepared in accordance with K-IRFS, and issues discussed and included in the context of the 10 principles of the UN Global Compact can be viewed on pages 84.

Verification of the Report
The report has been verified by DNV GL, a third-party assurance provider, in order to enhance accuracy of the content and data included in the report and to ensure that the content is presented in a balanced manner. Details including verification standards and scope and evaluator's opinions are available in the Independent Assurance Report on pages 82 - 83 of this report.

Inquiries on the Report
Sustainability Report and Environmental Report
SK Chemicals website : www.skchemicals.com
Website for environment management : www.skecoweb.com
Inquiries on Sustainability Management : SKMS Execution Team, SK Chemicals(02-2008-2040)
E-mail : dbkim@sk.com
Design : DenoFlat Design Company(02-826-9461)

UNGC Compliance Report(Communication on Progress)
SK Chemicals joined UNGC in February 2011. It upholds the ten principles on human rights, labor, environment, and anti-corruption. SK Chemicals' voluntary efforts and activities that follow the ten principles are reported as below.

Major themes	Principle	Report
Human rights	1. Businesses should support and respect the protection of internationally proclaimed human rights.	Compliance
	2. Businesses make sure that they are not complicit in human rights abuse.	
Labor	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	p. 42 - 49
	4. Businesses should eliminate all forms of forced and compulsory labor.	
	5. Businesses should abolish child labor effectively.	
	6. Businesses should eliminate discrimination in respect of employment and occupation.	
Environment	7. Businesses should support a precautionary approach to environmental challenges.	p. 58 - 61
	8. Businesses should undertake initiatives to promote greater environmental responsibility.	
	9. Businesses encourage the development and diffusion of environmentally friendly technologies.	
Anti-corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery.	p. 32 - 33

Sustainability Report TF

CEO Message		CEO **Kim Cheol**, CEO **Park Manhn Hoon**	
Company Overview		Team Leader **Kim Dong-beom**	SKMS Team
		Assistant Manager **Kim Gwang-hun**	Promotion Team
Business & Product	Green Chemicals : Business Overview	Manager **Park Hyeon-gyu**	GC Business Development Team
		Manager **Park Jae-hong**	Strategy Team 1
	Green Chemicals : R&D	Head **Bong Chan-jong**	Bio Energy Team
		Assistant Manager **Kim Ji-seung**	Research and Planning Team
		Manager **Park Jae-hong**	Strategy Team 1
	Life Science : Business Overview	Manager **Lee So-young**	LS Strategy Planning Team
	Life Science : R&D	Manager **Lee So-young**	LS Strategy Planning Team
		Assistant Manager **Kim Ji-seung**	Research and Planning Team
Core Reporting Aspects of Sustainability Management	Fostering Transparent Ethics Management	Manager **Lee So-young**	LS Strategy Planning Team
		Assistant Manager **Lee Hong-gyu**	Marketing Support Team
		Manager **Han Gyeong-hee**	Legal Affairs Team
		Manager **Jung Sang-yun**	QA Team(Andong)
		Manager **Choi Na-young**	Medicine Information Team
		Manager **Choi Jae-ho**	QA Team(Cheongju)
		Assistant **Manager Lee Won-gi**	Compliance Team
	Operating Safe and Healthy Plants	Assistant **Jung Jae-ha**	Operational Support Team(SK Plasma)
		Manager **Ahn Jae-hong**	Operational Support Team(Andong)
		Assistant Manager **Kim Dong-woo**	Business Support Team(Research institute)
		Staff **Yeo Hwan-ho**	Safety Environment Team(Ulsan)
		Staff Y**eo Hwan-ho**	Operational Support Team(Cheongju)
		Deputy General Manager **Kim Young-bum**	Compliance Team
	Establishing an Improved Corporate Culture	Manager **Kim Bo-gyeong**	SKMS Team
		Manager **Kim Hak-deok**	Work Support Team
		Manager **Song Jong-won**	Work Support Team
		Assistant Manager **Lee Yong-hee**	HR Team
General Reporting Aspects of Sustainability Management	Implementation of Sustainability Management	Team Leader **Kim Dong-bum**	SKMS Team
		Manager **Kim Bo-gyeong**	SKMS Team
	Sound Corporate Governance	Assistant Manager **Kim Jeong-min**	SKMS Team
	Systematic Risk Management	Manager **Kim Beom-gu**	Compliance Team
	Mutual Growth and Support for Business Partners	Deputy General Manager **Jo Sung-woo**	Procurement Team
	Environment-Friendly Plants	Manager **Lee So-young**	LS Strategy Planning Team
		Assistant Manager **Jung Jae-ha**	Operational Support Team(SK Plasma)
		Manager **Ahn Jae-hong**	Operational Support Team(Andong)
		Manager **Baek Myeong-gu**	Work Support Team
		Head **Yeo Hwan-ho**	Safe Environment Team(Ulsan)
		Manager **Park Jae-hong**	Strategy Team 1
		Assistant **Manager Shim Min-gi**	Strategy Team 2
		Head **Lee Gwang-ho**	Operational Support Team(Cheongju)
		Deputy General Manager **Kim Young-beom**	Compliance Team
		Assistant Manager **Kim Gwang-hun**	Promotion Team
	GHG Reduction and Energy Conservation	Head **Bong Chan-jong**	Promotion Team
		Head **Yeo Hwan-ho**	Safe Environment Team(Ulsan)
		Assistant Manager **Shim Min-gi**	Strategy Team 2
	Social Contribution for Win-win and Shared Growth	Assistant Manager **Kim Gwang-hun**	Promotion Team