

CSR Report 2018

Realizing a brighter tomorrow for
society through the power of chemistry





The Power of Chemistry

The word “Chemistry” carries the meaning of chemical reactions, but it also expresses the notion of common elements that link people together. KH Neochem aims to cultivate deeper communication with our stakeholders, discern further elements in common with them, generate “chemical reactions” through our business and corporate social responsibility (CSR) activities, and help guide society to a brighter tomorrow. This is our vision for the corporation that we intend to sustain. At KH Neochem, we will go on working through the power of chemistry to realize a brighter tomorrow for society.

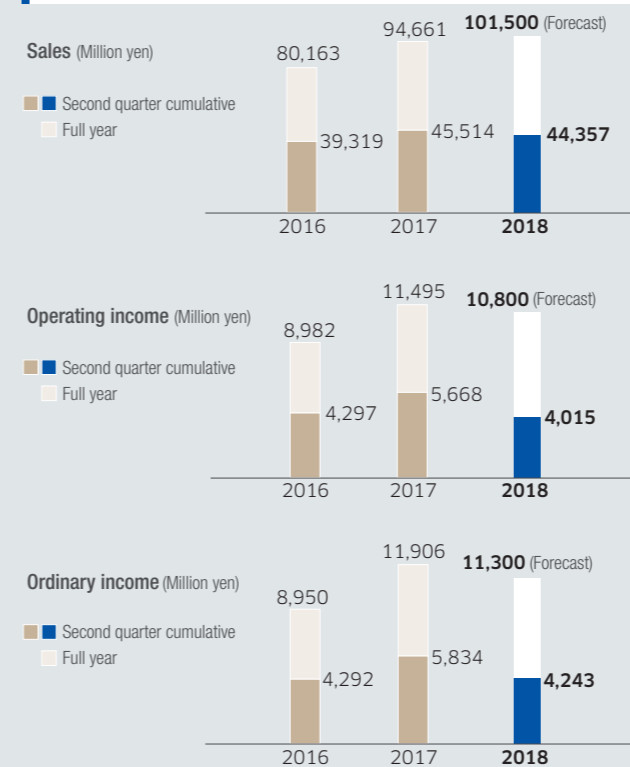
Corporate Overview

Founded	December 2010 * Our predecessor, Kyowa Yuka Co., Ltd., was established in November 1966	Affiliates	Kurogane Kasei Co. Ltd. Kurogane Fines Inc. J-PLUS Co., Ltd.* * Joint venture with Mitsubishi Chemical Corporation
Capital	8,775 million yen (as of June 30, 2018)	Overseas network	KH Neochem Americas, Inc. Shanghai Seika Trading Co., Ltd. Taiwan-Japan Oxo Chemical Industries Inc.* * Joint venture for the Taiwan Project
Number of employees	760 employees (Consolidated, as of August 31, 2018)		
Corporate headquarters	1-6-5 Nihonbashi-Honcho, Chuo-ku, Tokyo 103-0023, Japan		
Facilities	Osaka Branch Office Yokkaichi Plant Yokkaichi Research Lab Chiba Plant Sakai Logistics Center		

History

1948	Kyowa Sangyo Co., Ltd. (which later became Kyowa Hakko Kogyo Co. Ltd.) began Japan's first mass production of Acetone and Butyl alcohol by fermentation from syrup	2004	Yokkaichi Plant Achieved record length of time without accident by industry (for that time)
1949	Established Kyowa Hakko Kogyo Co. Ltd.	2011	Became independent from Kyowa Hakko Kirin Group with support from Japan Industrial Partners, Inc.
1963	Completed Umaokoshi Plant of the Yokkaichi Plant		Changed name to KH Neochem the following year
1966	Established Kyowa Yuka (predecessor of KH Neochem) as a subsidiary chemical manufacturer under Kyowa Hakko Kogyo Co. Ltd.	2016	Listed on the First Section of the Tokyo Stock Exchange
1988	Established Japan Oxocol Co., Ltd. (Present day: Chiba Plant)		

Consolidated Financial Highlights



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Editorial Policy

This report provides a heading-by-heading introduction to the conceptual approach and initiatives of Corporate Social Responsibility (CSR) at KH Neochem. We have made every effort to compose the report in easily understandable language.

Scope of Report

Report period: January 1 to December 31, 2017
* However, environmental report data and other such information with a statutory basis is during the period from April 1, 2017 to March 31, 2018. Some portions of the report also include activities for 2018.

Organization covered:
KH Neochem Co., Ltd. (Non-consolidated)
(Some portions also include consolidated information.)

Date of publication: September 2018

We will press forward to make this a corporation that grows with our stakeholders and continues contributing to society at large through the power of chemistry



Supporting the lives of people around the world through the power of chemistry

With the Corporate Mission of “Realizing a brighter tomorrow for society through the power of chemistry,” KH Neochem is a fine chemicals manufacturer that engages in business in the three main areas of basic chemicals, performance materials, and electronic materials.

Basic chemicals include solvents, raw materials for plasticizers, and others in an abundant lineup of products that support a wide range of industrial sectors in Japan and other countries and regions. Performance materials include ingredients for lubricants to support environmentally friendly air conditioners that contribute to protection of the ozone layer and prevention of global warming. Demand for these ingredients has expanded significantly in the countries of Asia, Latin America, and other regions where the numbers of air conditioners are increasing. This business also meets the growing worldwide need for highly moisture-retentive cosmetic ingredients used in high-quality cosmetics and other such goods that are used in people’s lives. Electronic materials include high-purity solvents manufactured using our high-purification technology and quality control know-how. These support the manufacturing of semiconductors, which are increasingly important for use in AI and the IoT, and contribute to development of the electronics field.

Recent years have brought a growing world population and rapid expansion of the middle class accompanying development in emerging nations. In this context, the demand for chemical products continues to grow worldwide. KH Neochem is responding flexibly to these changes in the environment while supporting the lives of people around the world by providing a stable supply of our products.

Keiichi Asai

President and Chief Executive Officer
KH Neochem Co., Ltd.

Concentrating our energies on building a foundation for growth with our three-year Medium-Term Business Plan

We are presently pursuing our second Medium-Term Business Plan (“Challenge for Change”), which runs from 2016 to 2018. The plan focuses our efforts on three key strategies: “Globally expand sales of performance chemicals,” “Enhance profitability of basic chemicals,” and “Establish a base for the future.” We carried out an aggressive program of periodic large-scale maintenance in 2018, which we expect will lower our profit. In addition to our steady implementation of the three strategies, however, the favorable market environment has enhanced our prospects for significantly exceeding the operating income target of 8 billion yen for the final year of the present plan (2018). Furthermore, we achieved record high earnings*1 for three consecutive years starting in 2015, before the present plan, and continuing in 2016 and 2017.

During the period of the present plan, we have concentrated our efforts on “building foundations for future growth.” Our activities during this three-year period include strengthening our production capabilities in performance chemicals, carrying out comprehensive cost reductions, preparing for construction of a new production center in Taiwan, strengthening our production infrastructure by an aggressive program of periodic maintenance, hiring and developing human resources, improving our organizational structure, and so on.

Aiming for further progress with an eye to 2030

We are presently engaged in formulating our long-term vision, “VISION2030,” and our third Medium-Term Business Plan, which starts in year 2019. We have positioned the next medium-term plan as the first step toward achieving significant advances by the year 2030. We will continue our efforts to strengthen our core businesses, but as the world population grows and the middle class expands, a variety of other changes are also occurring rapidly, including the rise of women playing more active roles in the societies of emerging nations, the use of AI and the IoT, and so on, so that growing demand is anticipated. Under these circumstances, it is extremely important that we enhance our capabilities to produce KH Neochem products. As part of this effort, we decided in December 2017 to expand our facilities for producing lubricant ingredients for use in environmentally friendly air conditioners. We are moving forward with preparations for entering operation in 2020, and this is expected to boost our former production*2 by a factor of 1.5.

In Japan, the decline in population is anticipated to result in market saturation, and we intend to actively take on the challenge of new business development in the environmental, energy-saving, healthcare, electronics, and other such fields. Beyond that, we will

also pursue further collaboration with corporations in other countries, development of global human resources, and other such initiatives during the three-year period of the next plan, which will call for “building the foundation for expansion overseas.”

Utilizing our strengths, we will engage with solutions to issues in society

Our various initiatives are centered on an axis that is CSR, and we believe that KH Neochem has many things of value that we are able to provide to society by utilizing our unique strengths. For example, the world has become aware of marine pollution by plastics as a major concern. We believe it is the social mission of the chemical industry to deal actively with this kind of environmental problem. Going beyond just trying to limit the use of products that eventually have an impact on the global environment, we ask what should be done to resolve the problem at its root. We will make good use of our perspective as a fine chemicals manufacturer and never stop considering what we can do for the future.

Of first importance to us in our day-to-day business operations is to continue safe operations without accidents or disasters. This contributes to our realization of a stable supply of product. It is also important for us to take measures, through our social contribution activities, that will be welcomed by people in local communities and that will foster our ties with them. We are committed to continuing our movement forward with society, and we will work vigorously toward the aim of further increasing our corporate value.

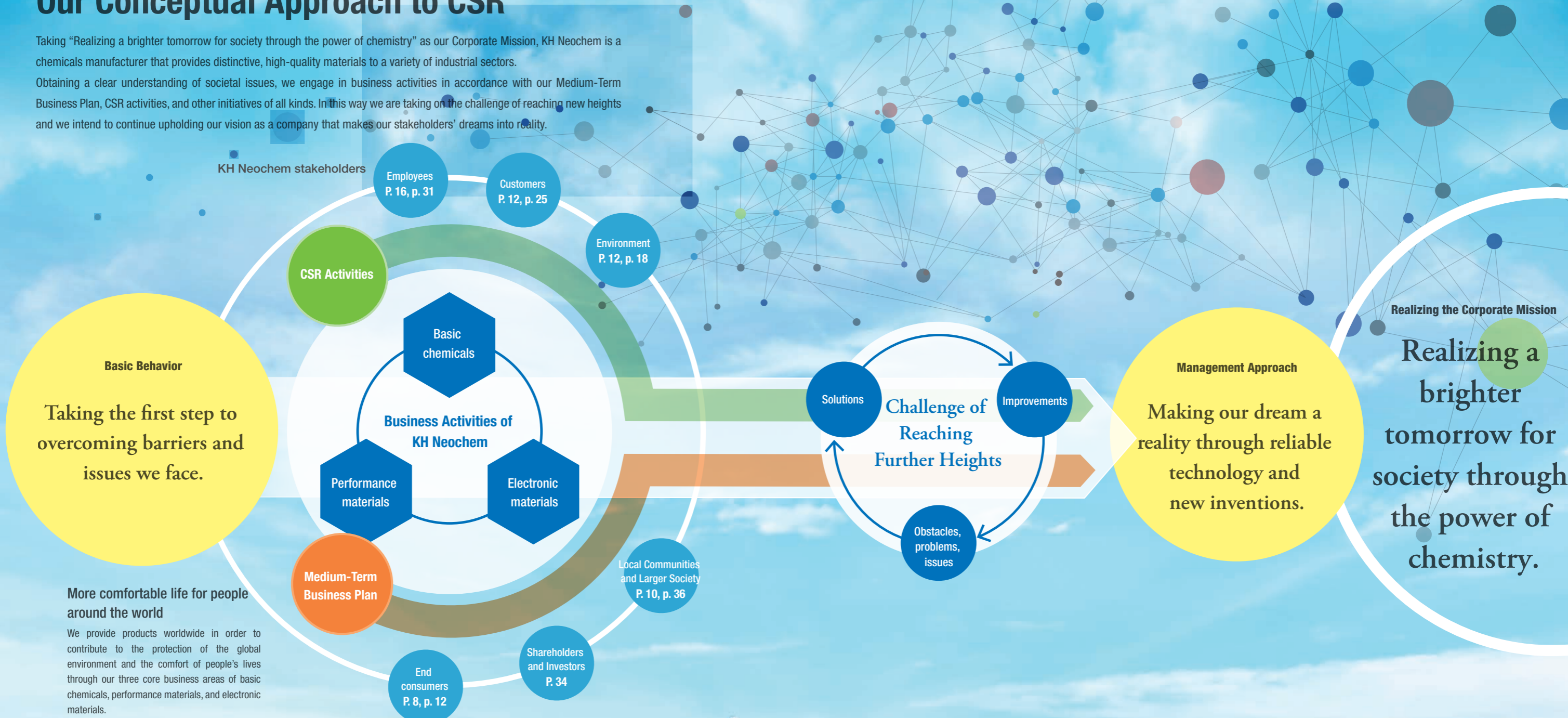
Bringing every individual employee to heartfelt awareness of compliance as a primary aim

Every individual employee must constantly be aware of compliance as a primary aim in our promotion of CSR. For that purpose, we have formulated the “5C Credo”*3 and distributed a message from myself together with a carry card to all our employees. Recent cases show how easing off even slightly on quality or safety can result in enormous damage, and it is clear that if we are lax in pursuing improvement because we assume that the way things have been done so far must be right, or because we cling to fixed notions, then the results are certain to reveal our complacency. It is my hope that every single one of us will inscribe indelibly in our consciousness that “Compliance Comes First,” and continue engaging in our respective work in good faith. KH Neochem will thereby continue to be a corporation to which our stakeholders can give their support. We will press forward vigorously toward our aim of continuing as a presence that is sought by society, enabling us to look forward to your continuing support.

*1 For operating income and ordinary income. *2 With regard to the products concerned.
*3 Please refer to the column on p. 30.

KH Neochem: Our Conceptual Approach to CSR

Taking "Realizing a brighter tomorrow for society through the power of chemistry" as our Corporate Mission, KH Neochem is a chemicals manufacturer that provides distinctive, high-quality materials to a variety of industrial sectors. Obtaining a clear understanding of societal issues, we engage in business activities in accordance with our Medium-Term Business Plan, CSR activities, and other initiatives of all kinds. In this way we are taking on the challenge of reaching new heights and we intend to continue upholding our vision as a company that makes our stakeholders' dreams into reality.



More comfortable life for people around the world

We provide products worldwide in order to contribute to the protection of the global environment and the comfort of people's lives through our three core business areas of basic chemicals, performance materials, and electronic materials.



KH Neochem: Supporting Lives

We provide support from behind the scenes for quality manufacturing and people's lives around the world

These are some of the many and varied things (products) that are used in our everyday lives.

KH Neochem uses its unique and reliable technology to manufacture a variety of different materials that are essential to quality manufacturing, and we provide a stable supply of these materials for the world.

There are many things in your day-to-day living that make use of the materials we provide.

Basic chemicals

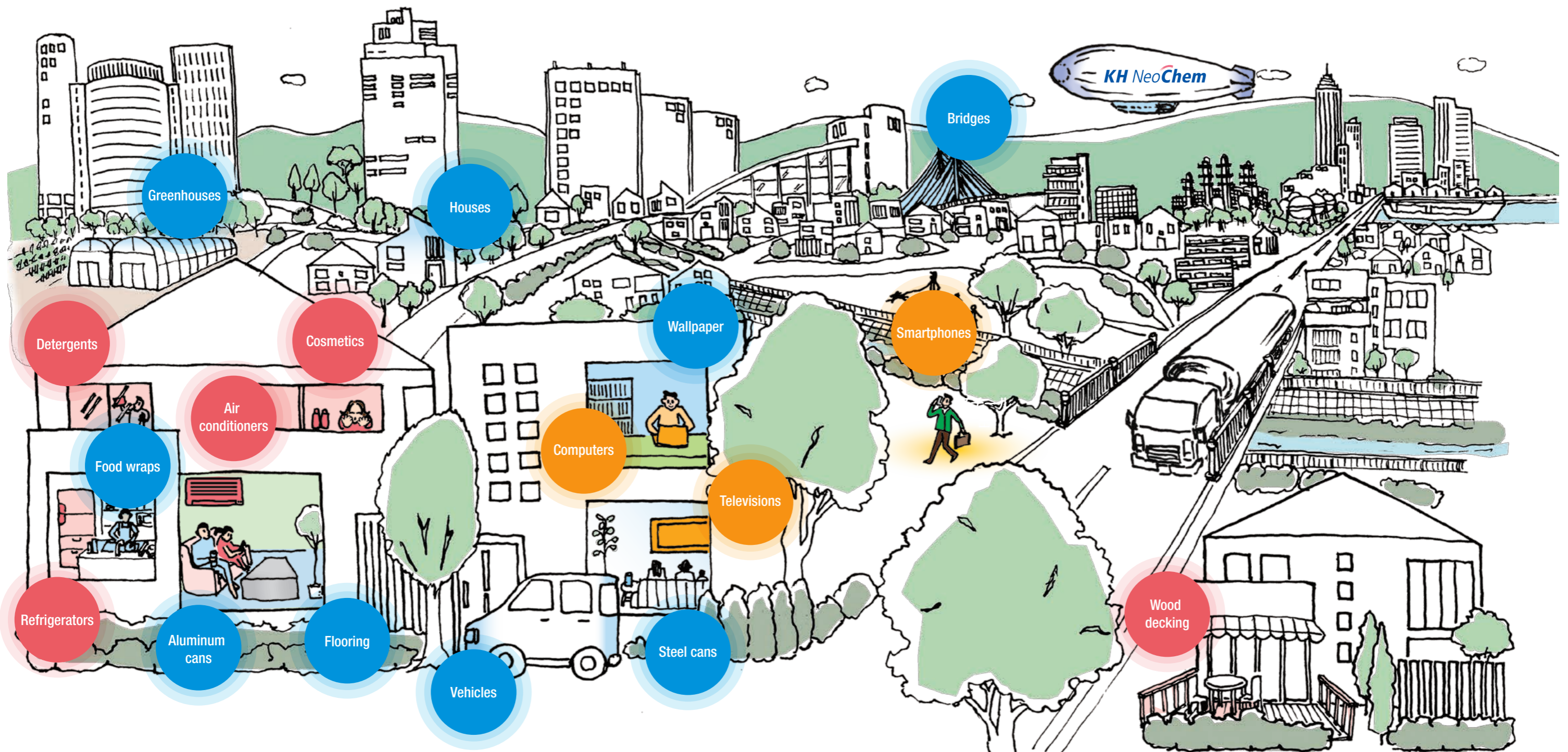
Our expansive product lineup ensures a variety of applications, including automobile parts, housing materials, and all types of everyday consumer goods.



Performance chemicals

Performance materials

Our unique performance chemicals are used in cosmetics, air conditioners, electronic equipment, and other items, providing people with support for a comfortable life.



KH Neochem's Social Contribution Activities

KH Neochem is working to contribute to society through its business and communications activities for the sustainable development of society. We have been engaging in clean-up programs, festivals, and other such activities and events with deep local roots in Yokkaichi City and Ichihara City in particular, where our plants are located (see p. 37, p. 39). Since 2017, we have been working to strengthen these measures by planning company-wide social contribution activities that all of us at KH Neochem engage in together.

5 Guidelines for Social Contribution Activities

- Activities that will be welcomed by those we are contributing to
- Activities that employees can actively participate in
- Activities that can continue
- Activities that will provide opportunities to learn about KH Neochem
- Activities that relate to business

Social contribution activities in fiscal year 2017

From April 2017 on

Conducted in-house questionnaire survey for all employees regarding social contribution activities

* 573 respondents, approximately 90% of employees (non-consolidated)

From May 2017 on

Collated employee questionnaire results, began studying activities to implement.

From August 2017 on

Carried on discussions that included management and decided on the substance of our activities.

As a result of the employee questionnaire findings and our in-house study, we decided that our social contribution activity for fiscal year 2017 would be touch-up painting of sports facilities in Yokkaichi City, Mie Prefecture.

Yokkaichi City is a manufacturing center for KH Neochem coating materials, and we decided on this activity not only as an opportunity to familiarize neighboring communities with KH Neochem, but also to show our gratitude for the help we receive from the people of the neighboring communities. (Our activity for 2018 is scheduled to be in Ichihara City, Chiba Prefecture. See p. 39.)

Touch-Up Painting of Sports Facilities in Yokkaichi City, Mie Prefecture

Background

Since KH Neochem products include butyl alcohol, butyl acetate, and other such coating materials (solvents), painting is an activity that is very much related to KH Neochem. At our Yokkaichi Plant in particular, approximately 30% of the products we manufacture are used as coating materials, so the plant is closely involved with coatings. It was decided, therefore, to repaint the fence around the roller skating rink at Yokkaichi Sports Land.

Description of the activity

Participants in this touch-up work were sought from among all our executives and employees. Approximately 100 volunteers, including President and Chief Executive Officer Keichi Asai, were scheduled to carry out the work on-site in late October. However, the activity was unavoidably postponed due to a typhoon, and employees from the Yokkaichi Plant were the core of the group of 20 who took part in the work in mid-November.



Description of activity	Paint presentation ceremony	Yokkaichi Sports Land Touch-up work on roller skating rink	"KH Neochem Day" in honor of a business that supports celebration of the 120th Anniversary of Yokkaichi City Municipality
Schedule	November 1, 2017 (Wednesday)	November 13, 2017 (Monday)	November 26, 2017 (Sunday)
Work done	<ul style="list-style-type: none"> • Donation of paint to use in touch-up of roller skating rink at Yokkaichi Sports Land (Mie Prefecture Yokkaichi City) • Commemorative tree planting 	<ul style="list-style-type: none"> • KH Neochem employees used the donated paint to repaint the fence around the Yokkaichi Sports Land roller skating rink 	<ul style="list-style-type: none"> • Free passes for the roller skating rink (with skate rental), athletic course, and super slider were distributed to 200 lower secondary and primary school students living in Yokkaichi City • Report on completion of roller skating rink painting work and unveiling • Greeting remarks by Yokkaichi Sports Land Director Hiroshi Kondo • Explanation of our initiative by KH Neochem Yokkaichi Plant Manager Toshiaki Ogata
Main participants	Mr. Nobuo Fujii, Deputy Mayor of Yokkaichi City Toshiaki Ogata, Plant Manager, KH Neochem Yokkaichi Plant	Approximately 20 KH Neochem Yokkaichi Plant employees joined others	200 lower secondary and primary school students and their families Mr. Hiroshi Kondo, Director, Yokkaichi Sports Land Toshiaki Ogata, Plant Manager, KH Neochem Yokkaichi Plant

Scenes on the day of the event

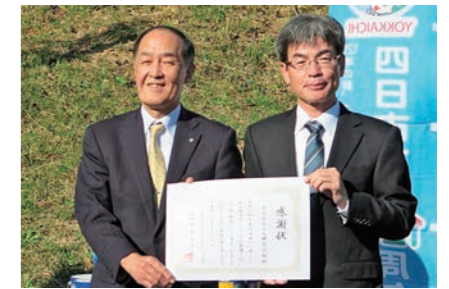
Paint presentation ceremony

KH Neochem donated paint for painting the roller skating rink of Yokkaichi Sports Land, a sports complex in Yokkaichi City, Mie Prefecture.

The day of the presentation ceremony fortunately brought fine weather, and Mr. Nobuo Fujii, Deputy Mayor of Yokkaichi City, made his remarks under clear skies. A letter of gratitude was also received from the Yokkaichi Culture and Community Development Foundation, which has jurisdiction over Yokkaichi Sports Land.

After the presentation ceremony, a tree planting was also held to commemorate this round of social contribution activities.

* The paint was donated on this occasion with the generous support of Dai Nippon Teryo Co., Ltd., and Sunday Paint Co., Ltd.



The painting work

The paint donated in the presentation ceremony was used by approximately 20 Yokkaichi Plant employees and others to repaint the fence around the roller skating rink at Yokkaichi Sports Land. Many participants at first showed some hesitation in doing this unaccustomed kind of work, but they began to coordinate their work with veteran employees. Then all the employees concentrated on the work and a job that would ordinarily be scheduled to take several days was completed in one day.

KH Neochem Day

"KH Neochem Day" was declared in honor of a business that supports celebration of the 120th anniversary of the Yokkaichi City municipality, and 200 lower secondary and primary school students who live in the city were invited to Yokkaichi Sports Land to be given free passes for the roller skating rink (with skate rental), athletic course, and super slider. The children enjoyed the facilities together with the family members who accompanied them. The Yokkaichi City mascot character Konyudo-kun also gave his support by making an appearance on the day of the event.

There were **200** participants plus family members



Summary and Prospects for the Future

Before this, we did not have a record of social contribution activities that made such good use of KH Neochem business, and this event gave us a sense for possible new social contribution activities. The event also created an opportunity for Yokkaichi City residents to get a feeling in person for this corporation called KH Neochem.

There are many pieces of playground equipment that children cannot play on safely because the paint is peeling. KH Neochem is in the business of manufacturing and marketing the materials for paint, and we hope to continue this activity in the future as part of our responsibility to society.

Stakeholders speak out



Ryosuke Yokoi

General Affairs Section, Yokkaichi Plant

This was a new discovery for me to see that we have ways like this to make a contribution to society as chemical manufacturers. I am from Yokkaichi City, and it felt good to be able to contribute to my home community. What made me happier than anything else about this activity, however, was that on KH Neochem Day, we were given the opportunity to receive words of appreciation directly from the city's citizens, and I was able to directly feel the joy of making a contribution to society. I would like to continue carrying out activities like this that will be welcomed by the people of the local community.



Mr. Hidenori Hasegawa

Yokkaichi Culture and Community Development Foundation

There have been times in the past when we borrowed the strength of local residents to help in times of disaster, but this was our very first experience in being the recipient of a corporation's CSR activities. There were some incidents along the way, such as having the corporation change the schedule because of an unseasonal typhoon. The outcome, however, is that I am glad we asked them, and on behalf of Sports Land, I can say that we are very grateful. On KH Neochem Day, some of the city residents who took part expressed their thanks to us. On seeing how brightly the sunlight shone on the railing, a child cried out excitedly, "Oh, it's all shiny!" and that child's voice made a real impression on me.

KH Neochem Contributes Value to Society Through Its Strengths and Its Business

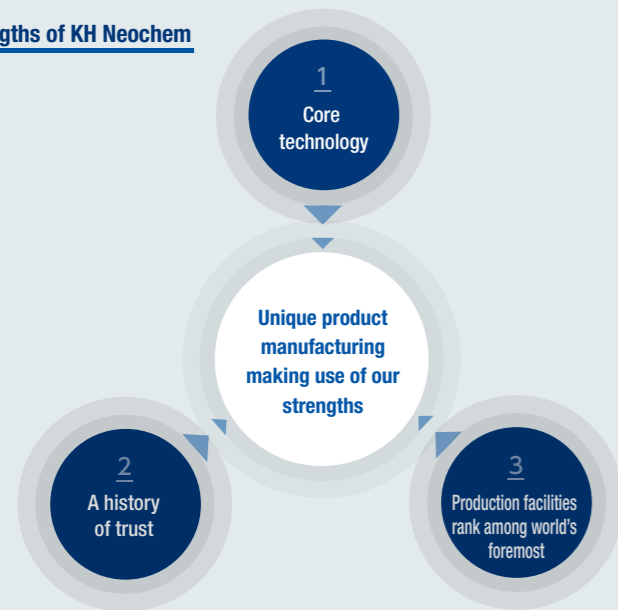
With “Realizing a brighter tomorrow for society through the power of chemistry” as our Corporate Mission, KH Neochem contributes value to society through products that make use of our unique strengths. Sustainable Development Goals (SDGs) appeared on the world stage when they were announced in 2015. KH Neochem understands that along with the SDGs there are other solutions to issues in society, and we undertake initiatives of all kinds in order to fulfill our mission as a member of society by delivering high value-added products to our customers. In this special feature, we introduce ways in which we contribute value to society in every field by means of the products we offer.

* What are the Sustainable Development Goals (SDGs):

The SDGs were adopted at a United Nations Summit in September 2015 as international objectives to be achieved by the year 2030. The abbreviation for Sustainable Development Goals, the SDGs are made up of 17 goals and 169 targets to meet in realizing a sustainable world.



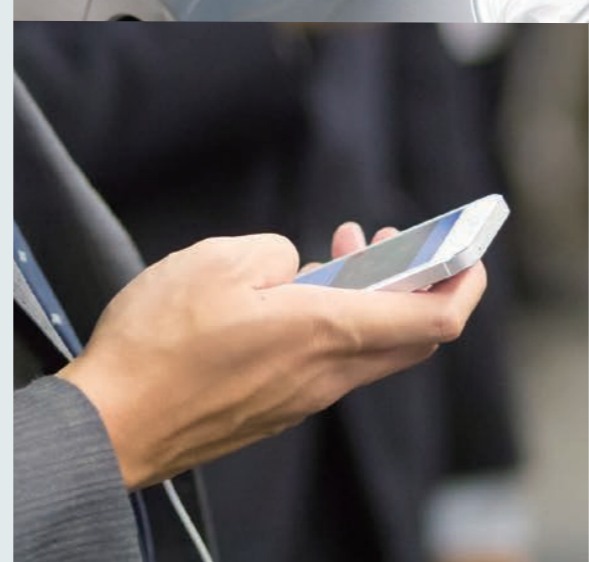
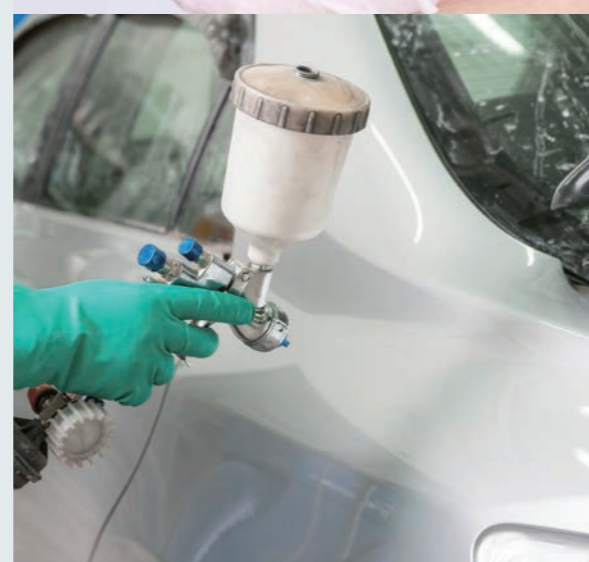
Strengths of KH Neochem



1 Core technology:
Global niche technical capabilities are at the top domestically
 KH Neochem has products that in Japan are solely manufactured by us, and even in the world are only manufactured by a few companies. Our core technology for oxo reactions (hydroformylation reactions) has been pivotal in our accumulation of combined know-how in organic synthesis, refining (high purification), and quality control. This established our unique technology by which we provide large numbers of materials that are essential to people's lives.

2 A history of trust:
Relationships of trust with our stakeholders have been sustained, for 70 years now
 Our business started in 1948 and went independent from Kyowa Hakko Kirin Group in 2011. We made it to a listing on the First Section of the Tokyo Stock Exchange in 2016. We have built up cumulative relationships of trust with our stakeholders that have been sustained over 70 years. This forms a crucial foundation for KH Neochem.

3 Production facilities ranking among world's foremost:
High share and abundant product line-up are what we provide with safety and stability
 KH Neochem owns plants in Yokkaichi and Chiba. The Yokkaichi Plant has two sections that boast production scale and product line-up at the very top domestically for oxo-related products. Our Chiba Plant has a high-pressure oxo reaction facility that is the only one of its kind in Japan and one of only a few in the world. With it we turn out products that are unique to KH Neochem.



The Performance Materials Field

The unique performance materials that can be obtained through KH Neochem technology are contributing to protection of the global environment as lubricants for environmentally friendly air conditioners. These materials are also contributing to our day-to-day lives in the ingredients for cosmetics, household detergents, and other everyday necessities we have around us.

Case 01 Promoting Widespread Adoption of Environmentally Friendly Air Conditioners

The 2-ethyl hexanoic acid and KYOWANOIC-N (isononanoic acid) we produce are used as ingredients for lubricants in the compressor that is in the outdoor unit of an air conditioner. KH Neochem products are highly compatible with environmentally friendly air conditioners, and they have achieved a high share in Japan and other countries. The demand for environmentally friendly air conditioners has been rising as environmental controls are instituted worldwide for ozone layer protection and global warming prevention, and the market is projected to show further growth.

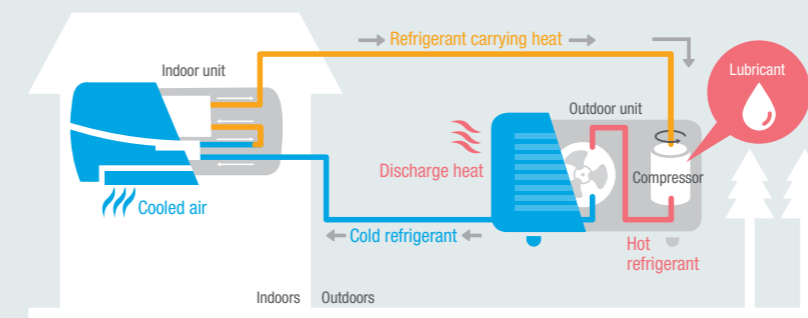


The Air Conditioner Mechanism: — Why Lubricants are Necessary —

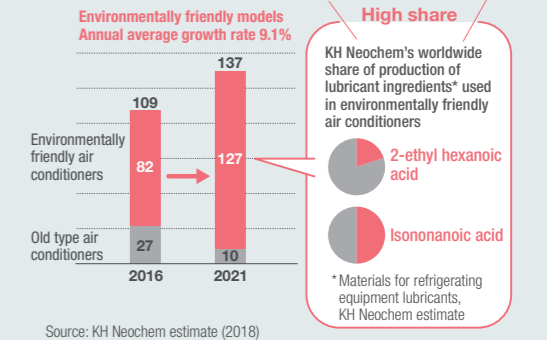
Air conditioners take in the hot indoor air of a room and transport just the heat to the outside, thereby making the room cool. The role of transporting the heat to the outside is performed by a refrigerant, which functions by undergoing compression in the outdoor unit's compressor. The compressor needs lubricant in order to operate smoothly, namely refrigerating equipment lubricant. The compatibility of the lubricant with the refrigerant being used is also a crucial factor. As the transition to environmentally friendly air conditioners takes

place around the world, the demand for refrigerants compatible with that equipment is also increasing rapidly. KH Neochem commands a large share in the area of raw materials for lubricants that are highly compatible with these refrigerants. The worldwide demand for environmentally friendly air conditioners is projected to expand at an average annual rate of around 9% until 2021.

The Air Conditioner Mechanism



Predicted market for environmentally friendly air conditioners (Unit: Millions of air conditioner units)



COLUMN

Strengthening Production Capability in Lubricant Ingredients for Environmentally Friendly Air Conditioners

KH Neochem is strengthening the production capacity at both the Yokkaichi and Chiba plants because of anticipated increases in demand for lubricant ingredients. At Chiba, production capacity upgrades of up to 30%* were carried out in the spring of 2018. At Yokkaichi, it was decided to expand production facilities. With an investment of 7.5 billion yen, operation is scheduled to start in 2020. This will increase production capacity by 50%*. KH Neochem is strengthening its production system to meet increases in demand on a global scale.

* Percentage increase over former production capacity for the object products



The Value Provided to Society

The lubricant ingredients made by KH Neochem are essential to the operation of environmentally friendly air conditioners, and they are contributing to protection of the ozone layer and prevention of global warming. In addition, with regard to air conditioner refrigerant, there are calls for a practical application of a next-generation refrigerant that is even more kind to the environment. KH Neochem is also actively engaged in the research and development of new materials to support such a

The Performance Materials Field

Case 02 Contributing to Beauty and Healthy Life for People Around the World

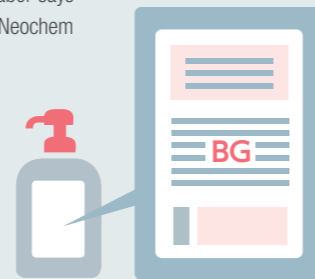
Skin care products are essential for maintaining beautiful, healthy skin. Since these products come into direct contact with the skin, they are required not only to be moisture retentive, but also to not be irritating. As living standards rise in emerging nations, the demand for high-quality skin care products is growing there as well.



The cosmetic ingredient 1,3-butylene glycol (BG)

Skin toner, facial masks, beauty serum, and other such products are required to yield a feeling of soft, smooth skin. The constituent used for this purpose is a cosmetic ingredient made by KH Neochem called 1,3-butylene glycol (BG). The distinctive features of our 1,3-butylene glycol are that it has high moisture retention, an appropriate degree of antibacterial function, a low degree of skin irritation, and little unpleasant odor. It has a wide range of uses, particularly in high-end cosmetics. Please take a look at the ingredients label on the

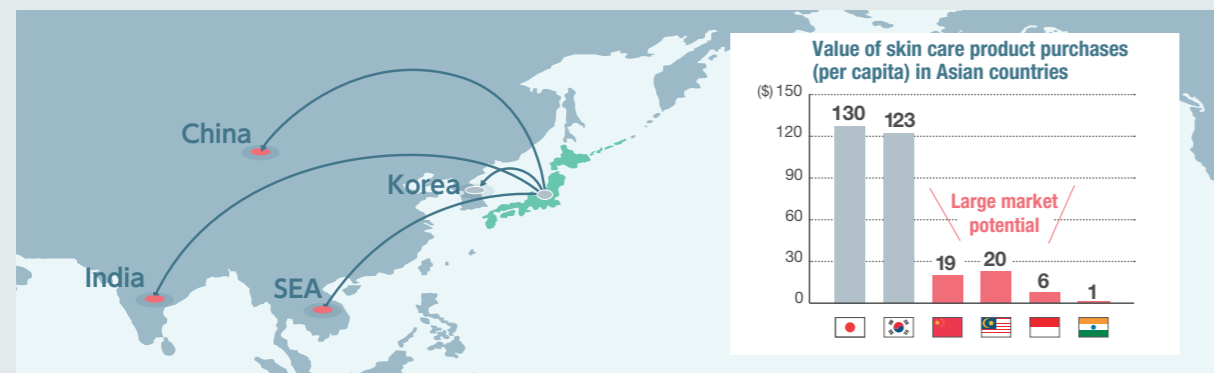
cosmetics you use. If the label says "BG," then it may use a KH Neochem product.



COLUMN

Widening Worldwide Need for Cosmetic Ingredients

The world's beauty and health needs are increasing every year. The 1,3-butylene glycol from KH Neochem is used for cosmetics in Japan and South Korea, which are said to be particularly beauty and skin-care conscious, and beyond that in Europe and other markets. Although the value of skin care products purchased in China, Malaysia, Singapore, and India is lower than in Japan and South Korea, there are prospects for a large potential demand in those countries. Some instances of this demand have already surfaced. Tourists visiting Japan purchase large volumes of these products, for example, and the development of e-commerce is showing an expanding demand for high-quality made-in-Japan cosmetics centered in emerging nations. In Southeast Asia, and other such regions with high temperatures and high humidity in particular, there is widespread adoption of air conditioning. Where offices tend to be very dry, the people who work in them seek out moisture retentive, high quality cosmetics. We intend to work actively through cosmetics manufacturers in Japan and other countries to supply products for the anticipated growth of demand in these markets.



The Value Provided to Society

Cosmetic grade 1,3-butylene glycol is a product that only two companies in Japan, and a total of three companies worldwide, are capable of manufacturing. By providing a stable supply of 1,3-butylene glycol to cosmetics manufacturers that produce high-quality cosmetics, we are contributing to beauty and healthy life for people around the world.

The Basic Chemicals Field

KH Neochem operates an oxo plant that is among the largest-scaled facilities in Japan to produce an abundant variety of high-quality products. Our solvents, plasticizer raw materials, detergents, and other kinds of product are supporting people's lives in a wide range of fields.

Case 01 Diversity of High-Quality Materials Support Industry Worldwide

Vehicles, houses, food products, and infrastructure are among the things that are essential to our lives. Safe and high-quality products are required, and KH Neochem is supporting people's lives with a definite quality and abundant product line-up.



Engaging in activities across a broad range of fields

The solvents and plasticizer raw materials we manufacture at KH Neochem are used in a broad range of fields. Solvents are turned into coatings, inks, and adhesives that are used in automobiles, houses, food packaging materials, bridges, roads, and so on. Raw plasticizer materials are utilized in fabricating vehicles, houses, greenhouses, electric wires, and so on. They are also used as

ingredients in plasticizers, which process plastics to make them malleable.



Providing Value to Society

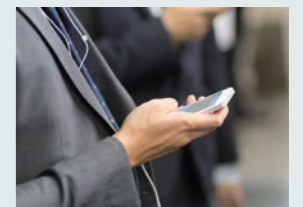
KH Neochem offers an abundant line-up of basic chemicals in our products, and the fields of application range widely from solvents to plasticizer raw materials to detergents and so on. By providing our customers with a stable supply of high-quality products that meet their needs, we are contributing to the development of industrial and social infrastructure in Japan and overseas.

The Electronic Materials Field

Through our fusion of high purification technology with quality control technology, we provide high-quality products for the electronics field.

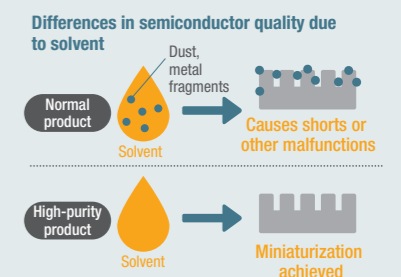
Case 01 High-Purity Solvents Support AI, the IoT, and Other Such New Innovations of Technology

An advanced information society has a growing need for the miniaturization of semiconductor circuits to make electronic equipment more convenient to use. This is because every year brings a need to achieve technical innovations making electronic equipment still lighter in weight, more compact, more power-saving, more highly functional, and so on. High-purity solvents, among the raw materials for chemical agents called photoresist, are necessary in fabricating semiconductor circuits. They are essential for high-precision semiconductor fabrication.



Higher purity enables greater miniaturization

Extremely fine semiconductor circuits are formed at the nanometer unit level, and the presence of even slight impurities (dust and metal fragments) could result in short circuits or other malfunctions. In order to reduce the occurrence of such malfunctions, the chemical agents used in manufacturing processes have to be of extremely high purity. In the near future, quality control is expected to require a tolerance level for impurity that is equivalent to a few small one-yen coins in a volume of water that would fill the Tokyo Dome (a huge stadium that is about 12 acres in area and 184 feet high). We are taking on the challenge of providing solvents with this extremely high level of purity.



Providing value to society

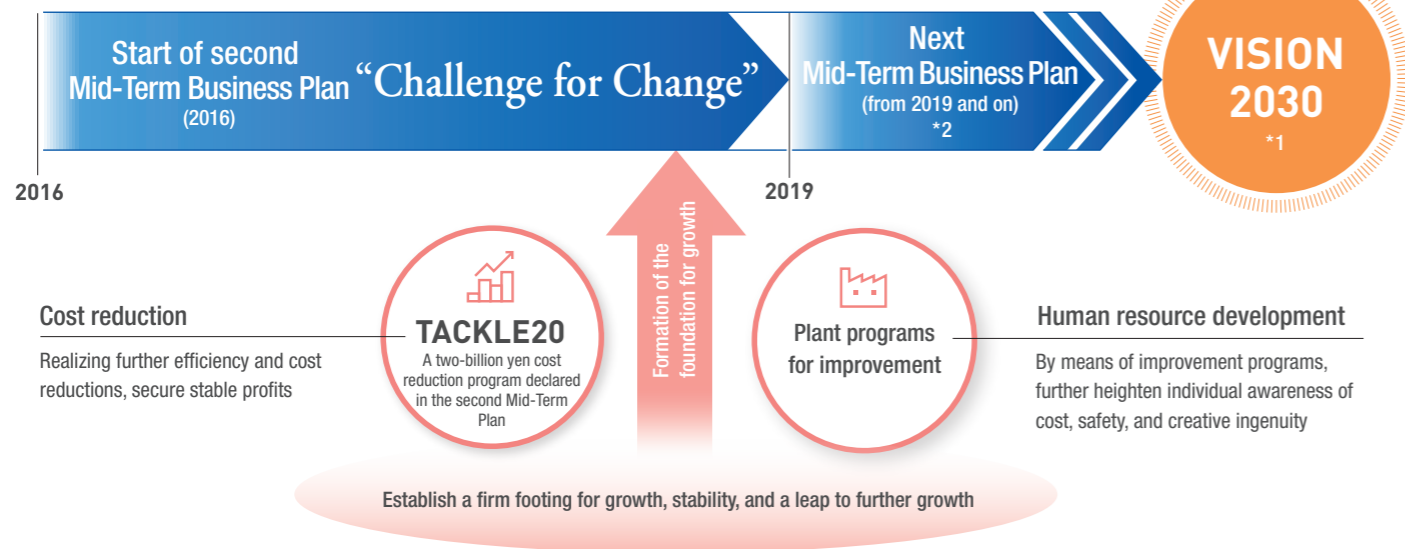
We are contributing to the most advanced quality manufacturing in the electronics field by means of our high-purity solvents. We are contributing, though from behind the scenes, to the development and dissemination of highly convenient electronic equipment, and we will go on contributing to the innovation of AI, the IoT, and other social infrastructure, as well as to greater comfort in people's lives around the world.

On-Site Initiatives Build Foundations for Further Growth

Announced in fiscal year 2016, the second KH Neochem Medium-Term Business Plan, "Challenge for Change," declared that one of our core strategies was to "Enhance profitability of basic chemicals." We have been taking measures accordingly to realize further rationalization and cost cuts in order to secure stable profits. In this special feature, we introduce two activities we have been promoting, particularly on-site in our manufacturing facilities, to further our efforts to achieve greater production efficiency and reduce costs.



Building the Foundation for Growth: Cost Reduction and Human Resource Development



As we see it at KH Neochem, our two plants in Yokkaichi and Chiba are major driving forces for our providing value to the world. We make the effort to engage in everyday improvement activities so that we can manufacture products with better quality and functional value in safety and stability and at low cost.

We were already engaging in improvement activities of all kinds as "plant programs for improvement," as well as in development of human resources

capable of furthering those programs. We have also been carrying on the "TACKLE20" project to achieve the two-billion yen cost reduction called for in our second Mid-Term Business Plan. Every operating site has been highly motivated in its pursuit of this project.

These on-site initiatives are making significant contributions to "Building the Foundation for Growth" so that we can realize "VISION2030"*1 and the next Mid-Term Business Plan*2, which starts in 2019.

*1 Scheduled to be announced in November 2018 *2 Scheduled to be announced in February 2019



Toward Continuing Cost Reductions

We are implementing the "TACKLE20" cost reduction project that has the declared goal of achieving a two-billion yen cost reduction during the period of the second Mid-Term Business Plan. Taking "company-wide innovation in operations that cut across departmental boundaries and are not caught up in past ways of doing things" as a catchphrase, we are pressing ahead with cost reductions, particularly on-site in our actual manufacturing facilities, with every department collaborating on the effort. Our highly motivated measures have already achieved approximately 1.6 billion yen in reductions (achievement rate of 80%) as of the end of 2017. We have also established a new awards system geared to "TACKLE20." Cases that demonstrate high effectiveness are recognized once per year with a certificate of commendation from the president and other executives together with an award. A total of 25 commendations for a cumulative total of 43 persons were awarded in 2017.



"TACKLE20" award ceremonies (left: Yokkaichi Plant; right: Chiba Plant)



Effects of Improvement Bring Job Satisfaction

What I sensed through "TACKLE20" is how important it is to take a step back and really look closely at the work we do and the facilities we work on every day as a matter of course. This way, points that need to be repaired or improved come up to the surface. Then, by making improvements to them one by one using creative ingenuity, it can be possible to make conspicuous advances in operational efficiency or major reductions in cost. Furthermore, making the results of these improvements visible in numbers so that we can understand them adds to an increased job satisfaction as well. I intend to continue taking on the challenge of improving work and facilities in the future, in hopes of creating a workplace environment it is easy to work in and facilities that are easy to work with.



Tomoaki Kitami
Chiba Plant

Achievement rate as of 2017
(Goal: 2 billion yen in 2018)

Approximately **80%**
of reductions made



Plant programs for improvement

Aiming to Realize Change and Heighten Value in the Plant

The Yokkaichi Plant has been engaged in the Value Change (VC) Campaign since 2011. The Chiba Plant has been engaged since 2015 in an improvement campaign called "the Chibappu (Chiba-Up) Program" aimed at plant change and value enhancement.

Plant management and the front line have been working with a sense of unity across departmental lines to make improvements in things that are unreasonable, things that are wasteful, and things that are inconsistent. Their aim is to be able to provide products of high quality and high added value in safe, stable manners at a low cost.

The improvement programs also involve sharing creative solutions, technology, and knowledge so as to enhance human resource development and job satisfaction. We treat this as another important purpose of these programs.



Action leader meeting ("label meeting")

In-house campaign badges worn by plant employees



"Why?" is the Driving Force that Opens the Way to KH Neochem's Future

By means of the VC Campaign, the attitude of "wondering why about things" and "repeatedly questioning things" are treated as opportunities for knowing. They are starting points for understanding the purpose and background of something, and grasping the root of a problem. Placing these firmly in the perspective of maintenance and management, I also sense that they contribute to how technology is handed down from one generation to the next. The VC Campaign also allows us to communicate with a variety of people and make new discoveries. The conceptual approaches I have learned through this campaign, and the connections with people I have made, are a foundation for our challenge to reach further heights. I think it will be the driving force that opens the way to KH Neochem's future.



Junji Yamano
Yokkaichi Plant

Responsible Care



Basic conceptual approach

Responsible Care (RC) refers to the autonomous management activities that business operators who manufacture or handle chemicals carry out to implement and take steps to improve environmental, safety, and health measures throughout all processes involving chemicals, from development through manufacturing, physical distribution and use, to final consumption and disposal. KH Neochem has adopted an RC Program Policy and is implementing Responsible Care.

RC Program Policy and System

RC Program Policy

KH Neochem has established an RC Program Policy and pursues its business activities with commitment first and foremost to fulfilling its responsibility to society as a corporation. We do this in order to continue being a chemical manufacturer that provides distinctive products in a variety of sectors and that supports the global environment, as well as comfortable lives for people around the world. What is required of chemical manufacturers, above all, is to operate their plants safely, and so we have formulated a Fundamental Policy for Safety Management to implement a thoroughgoing response to that requirement, and we are making every effort to assure the security and safety of our operations.

RC Program Policy

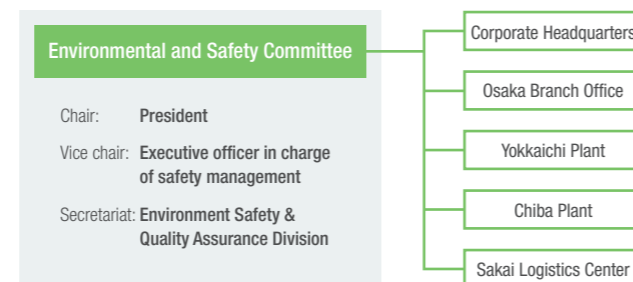
- 1 Compliance**
In addition to international regulations and domestic laws and regulations, we will comply with KH Neochem rules and regulations.
- 2 Environmental conservation**
We will make every effort to reduce the environmental impact of our products at every stage from development to disposal.
- 3 Safety and disaster prevention and occupational safety and health**
We will maintain our record of zero accidents and disasters, making every effort to assure safety, peace of mind, and health for regions and communities, as well as for everybody who works at KH Neochem.
- 4 Physical distribution safety and chemical and product safety**
We will acquire the most up-to-date safety information on the chemical substances and products that we handle, and we will provide the correct information to customers, to the people involved in physical distribution, and to the people who work at KH Neochem.
- 5 Dialogue with society**
We will contribute to regions and communities by engaging in dialogue and communication with them regarding the environment, safety, and health.

Fundamental Policy for Safety Management

- 1** In addition to safety-related laws and regulations, we will act in unfailing compliance with the decisions made by KH Neochem.
- 2** We will always continue maintaining awareness of sources of danger and making every effort to prevent safety-related accidents.
- 3** We will continue improving our safety management systems and seeking to upgrade safety management levels.
- 4** We will make every effort to conduct training and consciousness-raising in order to encourage employees and other people involved to take the initiative in accident prevention activities.

RC Program System

KH Neochem has established an Environmental and Safety Committee with the president as chair and the executive officer in charge of safety management as vice chair, and the company is implementing an RC program. Activities are being pursued at every operating facility in accordance with the RC Program Policy and the Fundamental Policy for Safety Management determined by the Environmental and Safety Committee.



Status of certification acquisition

The Yokkaichi Plant and the Chiba Plant have acquired certification in quality management systems (ISO 9001) and environmental management systems (ISO 14001). They are maintaining their certification and promoting RC programs in line with those systems, and both have made the transition to the new ISO 9001 and ISO 14001 standards (2015 versions).

Plant name	Certification acquired	Certification bodies
Yokkaichi Plant	ISO 9001 January 1999	Japan Chemical Quality Assurance Ltd.
	ISO 14001 July 2000	International Standards Certification Center
Chiba Plant	ISO 9001 December 1998	Japan Chemical Quality Assurance Ltd.
	ISO 14001 November 2000	Japan Chemical Quality Assurance Ltd.

Fiscal year 2017 RC Program objectives and results together with fiscal year 2018 objectives

◎: Achieved ○: Almost achieved △: Unachieved

RC code	Fiscal year 2017			Fiscal year 2018
	Objective	Actual results	Evaluation	Objective
Environmental conservation	● Environmental accidents: 0	● Environmental accidents: 0	◎	● Environmental accidents: 0
Safety and disaster prevention	● Safety-related accidents: 0	● Safety-related accidents: 1	△	● Safety-related accidents: 0
Occupational safety and health	● Work-related accidents: 0	● Employee accidents resulting in lost workdays: 0 ● Employee accidents not resulting in lost workdays: 1 (Chiba Plant) ● Accidents at cooperating companies resulting in lost workdays: 0 ● Accidents at cooperating companies not resulting in lost workdays: 2 (Yokkaichi Plant)	△	● Work-related accidents: 0
Others	● Compliance violations: 0	● Compliance violations: 0	◎	● Compliance violations: 0
	● Trouble reduction (five-year average or lower)	● Trouble: 28 cases (average of fiscal years 2012-2016) ↓ 26 cases (fiscal year 2017)	◎	● Trouble reduction (five-year average or lower)

Inspection and audit

Environment safety inspections and quality audits

At KH Neochem, periodic environment-safety inspections of the Yokkaichi Plant, Chiba Plant, and Sakai Logistics Center are conducted by the Environment Safety & Quality Assurance Division at corporate headquarters under the direction of the executive officer in charge of safety management. Periodic quality audits are also similarly conducted under the direction of the executive officer in charge of quality assurance. The environment safety inspections and quality audits involve evaluation of RC activities at our operating facilities.

Scenes of inspections underway



Environment safety inspection (Yokkaichi Plant)

Internal audit of plants

The Yokkaichi Plant and the Chiba Plant conduct internal audits for ISO 9001*1 and ISO 14001*2 as well as for accreditation as high-pressure gas inspection executors (completion inspection and safety inspection)*3 based on safety management systems.

External audits

The Yokkaichi Plant and the Chiba Plant undergo external audits (maintenance audits and renewal audits) based on ISO 9001*1 and ISO 14001*2 and are maintaining their certification. KH Neochem is taking continuing steps to improve RC programs by incorporating the results of these environment safety inspections, quality audits, internal audits of plants, and external audits as feedback.



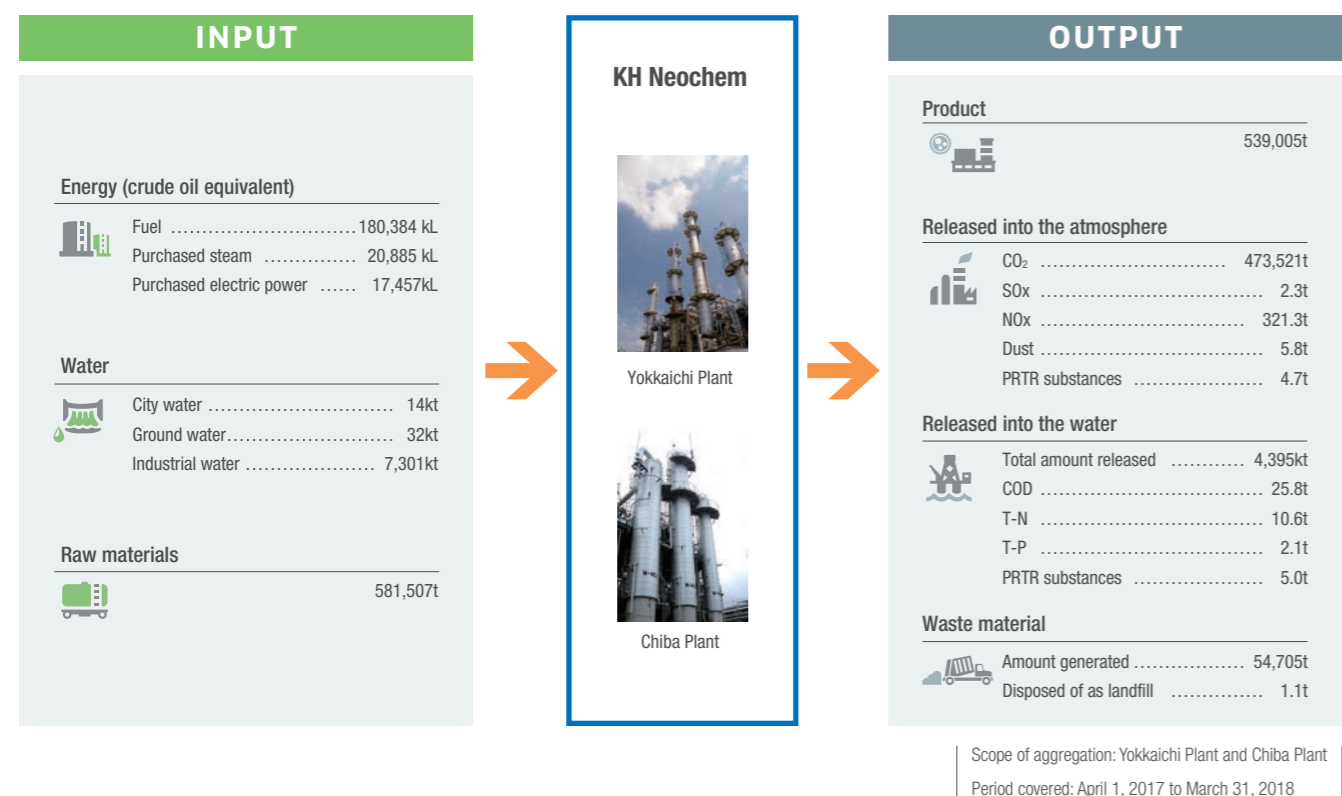
Environment safety inspection (Chiba Plant)

*1 See p. 18 *2 See p. 18 *3 See p. 23

Environmental conservation

Flow of environmental impact results

This shows an overall image of inputs and outputs that occur when manufacturing our products.



Environmental accounting

This refers to environmental accounting that quantitatively determines and evaluates the amounts of investments and expenses involved in environmental conservation.

Environmental conservation costs

Unit: Million yen

Classification	Substance of main measures	Investment amounts	Expense amounts
Costs within business area		69	2,030
Breakdown	Pollution prevention costs	(15)	(668)
	Global environmental conservation costs	(0)	(255)
	Resource recycling costs	(54)	(1,086)
Upstream and downstream costs	Purchase of recycled stationery (eco-label goods), etc.	0	2
Management program costs	Environmental management system maintenance, operation, etc.	0	29
Research and development costs	Research and development, etc. for products contributing to environmental conservation, etc.	0	168
Social program costs	Contributions to groups engaging in environmental conservation, support, etc.	0	0
Environmental remediation costs	Oil spill liability insurance, levies on pollution loads	0	7
	Total	69	2,235

* Some totals may not tally due to rounding.

Economic impact

Unit: Million yen

Description	Amount
Profit	9

Scope of aggregation: Yokkaichi Plant and Chiba Plant
Period covered: January 1 to December 31, 2017

Global warming prevention

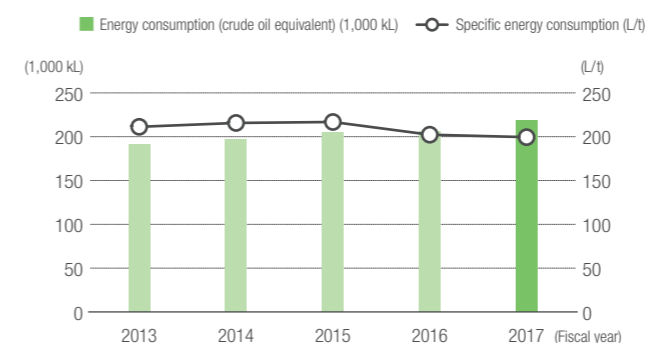
Energy consumption, specific consumption, and CO₂ emissions volume

As a designated business operator under the Energy Saving Law^{*1}, KH Neochem makes every effort to promote rational uses of energy. As a specified emitter under the Global Warming Law^{*2}, we are also making every effort to reduce CO₂ emissions. In fiscal year 2017, our energy consumption and CO₂ emissions volume as percentages of the previous year were 105.9% and 105.7%, respectively, showing an increase. As to specific energy consumption, improvements in the fuel, steam, and other energy sources we use brought an improvement at 98.6% of the previous fiscal year. Going forward, the whole company will act together to improve the specific energy consumption and reduce CO₂ emissions.

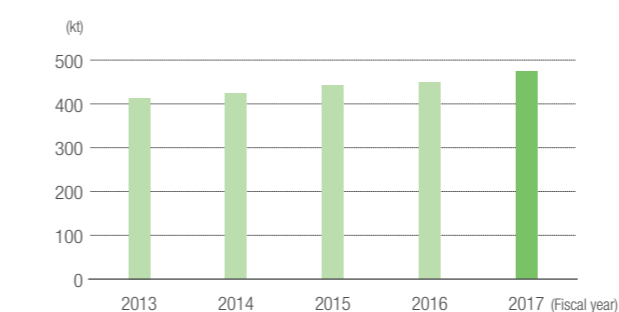
*1 Energy Saving Law: Law Concerning the Rational Use of Energy

*2 Global Warming Law: Act on Promotion of Global Warming Countermeasures

Energy consumption and specific consumption



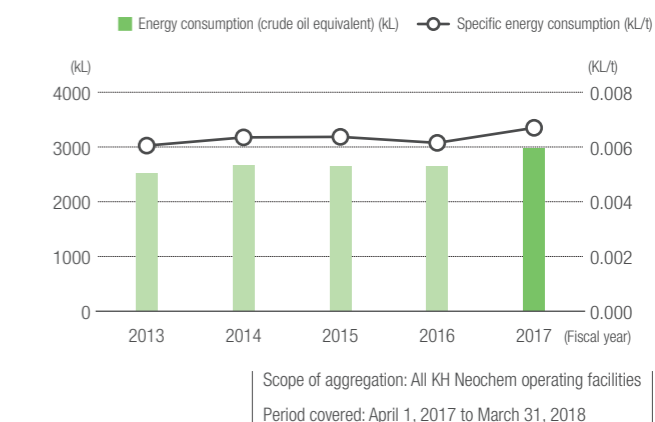
CO₂ emissions



Energy consumption and specific consumption in physical distribution

As a designated shipper under the Energy Saving Law^{*1}, KH Neochem also promotes the rationalization of energy use in physical distribution. The specific energy consumption for physical distribution in fiscal year 2017 worsened by 8.6% over the previous fiscal year because of increased sales volume and increased shipments not at stock points, but direct from our plants. We will continue taking measures to reduce our energy consumption by increasing lot sizes, using reforming additives for ship fuel, and so on.

Energy consumption and specific consumption in physical distribution



Reduction of amount released into the environment

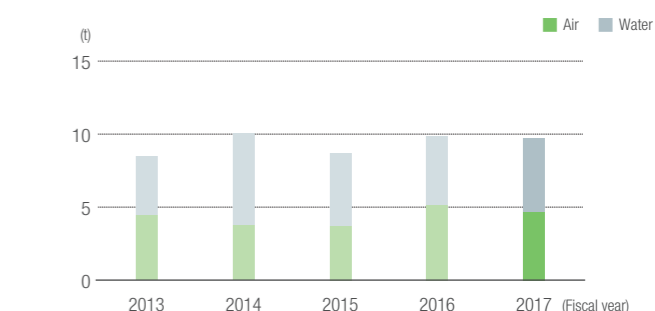
Chemical substances

KH Neochem makes reports to the Japanese government in accordance with the PRTR Act^{*3} on the amount of Type 1 designated chemical substances manufactured, or used annually, that is released into the environment and on changes in those amounts. The amounts released are shown in the below figure.

Due to facility improvements implemented in fiscal year 2012, over the last five years we have maintained figures showing a reduction by approximately 30% over fiscal year 2012.

*3 PRTR Act: Act on Tracking the Amounts of Specific Chemical Substances Released into the Environment, and Promoting Improvement in the Management of Such Substances

Amounts released



Amount of PRTR Act Type 1 designated chemical substances released (fiscal year 2017)

[Top five substances by amount released]

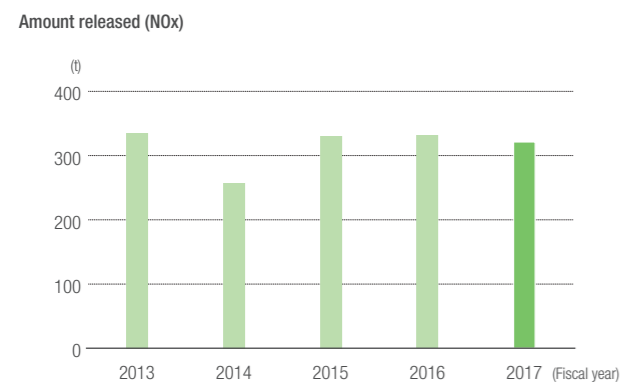
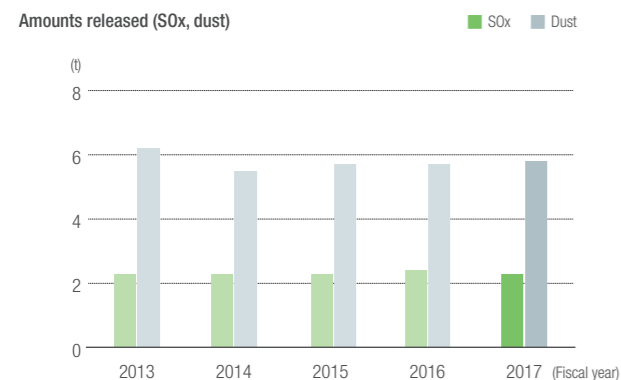
Unit: t

Ordinance number	Substance name	Amount released			
		Air	Water	Soil	Total
12	Acetaldehyde	1.6	1.1	0.0	2.7
35	Isobutyl aldehyde	0.4	1.8	0.0	2.3
300	Toluene	0.9	1.0	0.0	1.9
20	2-aminoethanol	0.7	0.0	0.0	0.7
132	Cobalt and its compounds	0.0	0.5	0.0	0.5

* Some totals may not tally due to rounding.

Air pollutants

With regard to sulfur oxides (SOx), nitrogen oxides (NOx), and dust discharged from boilers, liquid waste incinerators, sludge incinerators, and other such facilities, KH Neochem of course complies with emissions standards based on the Air Pollution Control Act, and we additionally comply with levels that have been agreed upon with local communities.



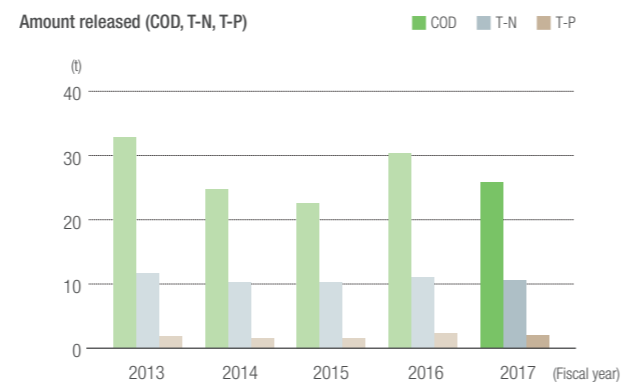
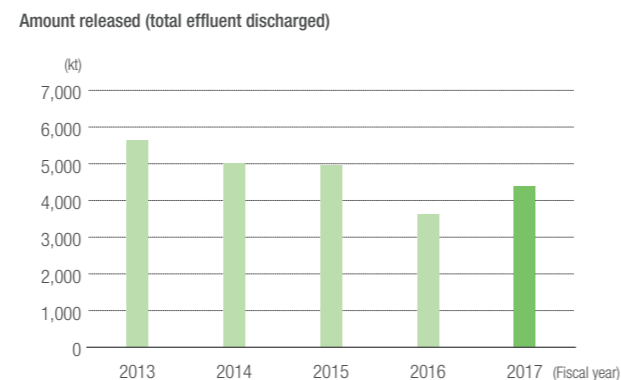
Levels agreed upon with local communities and annual maximum values

	SOx		NOx		Dust*1	
	Agreement level	Maximum value	Agreement level	Maximum value	Agreement level	Maximum value
Yokkaichi Plant	1.0Nm³/h	0.0Nm³/h	53.0kg/h	30.6kg/h	0.025g/Nm³	0.001g/Nm³
Chiba Plant	9.0Nm³/h	0.1Nm³/h	12.0Nm³/h	2.2Nm³/h	4.5kg/h	0.4kg/h

*1 Dust: At the Yokkaichi Plant, density controls are set per item of equipment. Here, the generator boiler figure is shown as a typical example.

Water pollutants

KH Neochem complies with emissions levels based on the Water Pollution Prevention Act as well as with levels agreed upon with local communities for chemical oxygen demand (COD), total nitrogen (T-N), and total phosphorus (T-P) in wastewater.



Levels agreed upon with local communities and annual maximum values

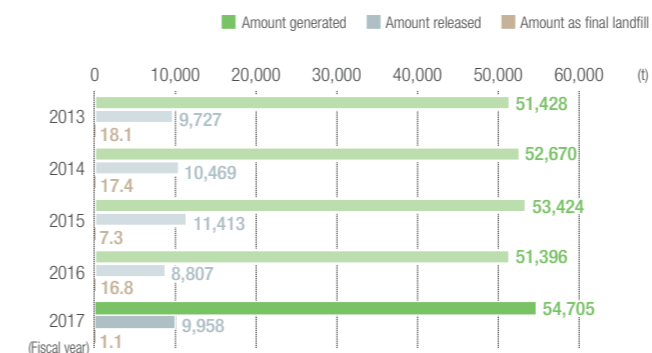
	COD		T-N		T-P	
	Agreement level	Maximum value	Agreement level	Maximum value	Agreement level	Maximum value
Yokkaichi Plant	201.2	90.7	46.0	29.8	13.00	9.4
Chiba Plant	124	62.9	90	38.9	12.5	5.7

Unit: kg/day

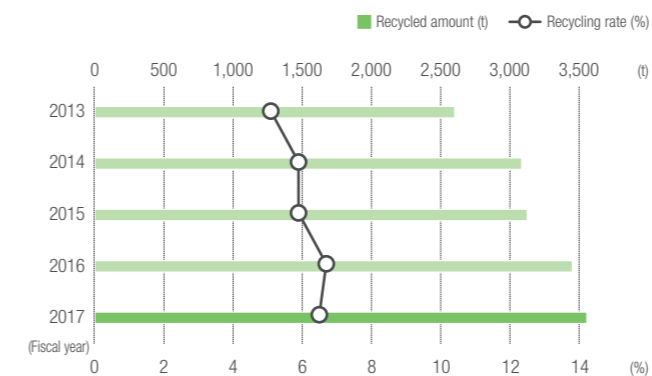
Waste material

At KH Neochem we implement thoroughgoing separation of waste materials and engage in the 3 R's of waste, which are Reduce, Reuse, and Recycle. We are moving forward with efforts to reuse acid waste and alkaline waste in our plants as well as to reduce their volume, to contract for recycling treatment of waste catalysts, and to reuse incinerator waste as aggregate. For waste material that cannot be reused or recycled, we are making every effort to treat it to reduce its volume and to reduce the amount that goes to a landfill.

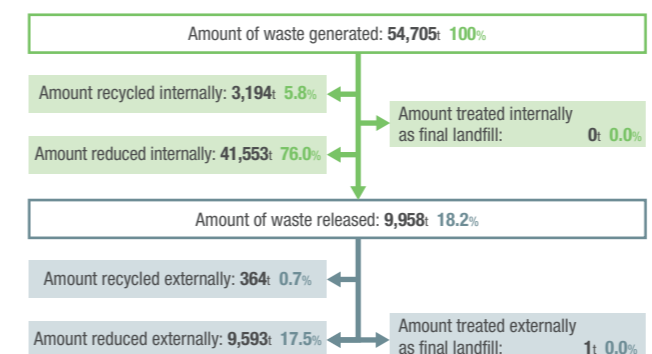
Amount of waste generated, amount released, and amount treated as final landfill



Recycled amount and recycling rate



Waste material treatment flow



Scope of aggregation: Yokkaichi Plant and Chiba Plant
Period covered: April 1, 2017 to March 31, 2018

Safety and disaster prevention

Safety and disaster prevention measures

The Yokkaichi Plant and Chiba Plant each define its own Safety Management Policy in accordance with the Fundamental Policy for Safety Management (see p. 18). They carry out a variety of activities to secure the safety of their plants, including safety and environmental assessments, disaster preparedness training, and so on.

Safety and environmental assessment (SEA)

At KH Neochem, we conduct an SEA in advance to assess the environmental, safety, and health impact when introducing new technology, new processes, new facilities, new machinery, and new chemical substances. By using the SEA assessment results for feedback, we make every effort to heighten the safety of processes and equipment.

Emergency training

KH Neochem conducts periodic disaster preparedness training for emergency scenarios, as well as training in initial firefighting response and emergency reporting. We prepare so that we can respond promptly and appropriately, keeping damage to a minimum in the event of an emergency.



Comprehensive disaster preparedness training mobilizing all citizens (Yokkaichi Plant)



Comprehensive disaster preparedness training at joint facility (Chiba Plant)

Accreditation as high pressure gas inspection executors (for both completion inspection and safety inspection)

This system, instituted by the High Pressure Gas Safety Act, enables establishments that are recognized to have high standards for safety management, operations management, and equipment management, to conduct their own completion inspections and safety inspections in accordance with the High Pressure Gas Safety Act.

The Yokkaichi Plant has acquired this accreditation for six manufacturing facilities and the Chiba Plant has acquired it for one manufacturing facility. Both plants take steps for continuing improvement by implementing the Plan-Do-Check-Action (PDCA) cycle.

VOICE
Employees speak out

Masahiko Ishiguri
Environment Safety Section
Yokkaichi Plant

Operations Management of Wastewater Treatment Facilities: For Stable Operation of the Manufacturing Plant and Peace of Mind of the Community Residents

I am in charge of operations management of wastewater treatment facilities at the Yokkaichi Plant. The wastewater discharged from the manufacturing plant contains many organic materials and other such substances, so it cannot be released into the natural environment just as it is. The organic materials and other such substances in the wastewater are reduced to statutory levels or lower so that the water quality is good enough for release, and it is in wastewater treatment facilities that this is done. Wastewater treatment at the Yokkaichi Plant is carried out by what is called the activated sludge process, a system that uses the power of microorganisms. Since this is a biological treatment, it is very sensitive to environmental changes. It is a major job to maintain the quality of the wastewater to be treated and the conditions in the treatment tanks at certain levels, and going forward, I intend to do my best for management of the wastewater facilities, keeping them healthy so that the manufacturing plant can continue its stable operation and so everyone in the local community can lead their lives with peace of mind.

Occupational safety and health

Occupational safety and health measures

KH Neochem conducts risk assessments*1 in order to assure the safety of employees and personnel engaged in work at our plants, as well as to take preventive action against disaster. We also conduct case studies on accidents and disasters that have occurred in the past, whether in the company or elsewhere, and we make every effort to prevent the occurrence of similar accidents or disasters. We also engage in risk prediction activities using "hiyari hatto," close call recognition, and "kigakari memo," memos on matters of concern, improvement suggestion programs, and other everyday health and safety activities.

A revision of the Industrial Safety and Health Act has also made it mandatory to conduct risk assessments*2 of chemical substances. We began administration of these assessments when the amended law went into effect on June 1, 2016.

*1 Risk assessment:

This refers to a series of techniques for identifying the risks and hazards in work, determining the seriousness and likelihood of work-related accidents arising from them, combining that information to estimate the risks, deciding on a priority for countermeasures based on the magnitude of those risks, studying measures to eliminate or reduce the risks, and keeping a record of the results.

*2 Chemical risk assessment:

This refers to the identification of the risks and hazards of chemical substances and products, estimation of the likelihood of risk to workers or damage to their health, and studying measures to reduce the risks.

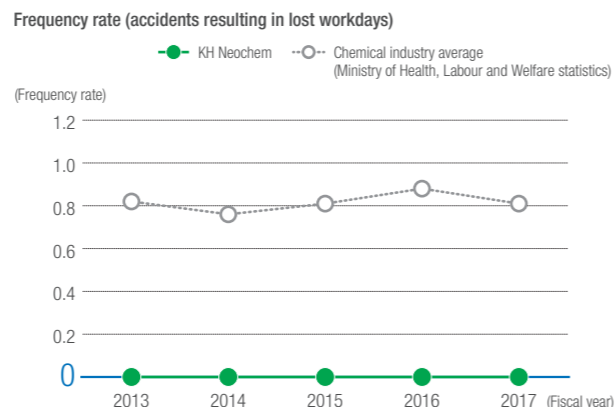
Status of occurrence of work-related accidents

There have been zero occurrences of accidents resulting in lost workdays at the Yokkaichi Plant since October 11, 2008, and at the Chiba Plant since September 3, 2010. In the 2017 fiscal year, however, there was one accident at the Chiba Plant that did not result in lost workdays. We are making every effort to examine the root causes of the accident and to devise measures, including safety education and equipment improvements, to prevent its recurrence.

In 2004, the Yokkaichi Plant set the Japan Industrial Safety and Health Association record (for that time) of longest accident-free period classified by industry. Domestically, the plant is holding its position among the top record holders for accident-free working hours classified by industry (organic chemical product manufacturing industry: 23,953,235 hours). In 2005, the plant celebrated reaching 10,000 continuous days of accident-free work, and erected a commemorative monument.



Monument commemorating continuous accident-free days



Frequency rate: Indicator of the frequency of accident occurrence
 (Number of fatalities and injuries) ÷ (Cumulative number of actual work hours) × 1,000,000



Severity rate: Indicator of the seriousness of an accident
 (Cumulative number of lost work days) ÷ (Cumulative number of actual work hours) × 1,000

Physical distribution safety and chemical and product safety

Yellow cards*1

For preparedness in the event of an accident while transporting KH Neochem products, we have created yellow cards that set out what measures to take in case of emergency, who to contact, and so on. We make certain that these cards are always carried by the drivers of tanker trucks or other vehicles during transportation.

*1 Yellow cards: Cards in line with Japanese law that are attached only to products shipped to locations within Japan

Chemical substance management

KH Neochem gives first priority to providing correct information so that our products can be used safely, and the company is taking measures to put this into practice. Inside Japan, we create SDS*2 and labels displaying risk and hazard information and safety measures according to JIS standards, which are GHS*3 compliant. In other countries, we implement measures as necessary in accordance with that particular country's GHS system.

*2 SDS: Safety Data Sheet

*3 GHS: Globally Harmonized System of Classification and Labelling of Chemicals

Container labels

We affix labels to our product containers as cautionary notices to people who handle KH Neochem products*4.

For products exported to other countries, we provide information and other support of every kind to the local importers who are responsible for affixing container labels.

*4 For products we ship for use in Japan, we affix labels to all containers.

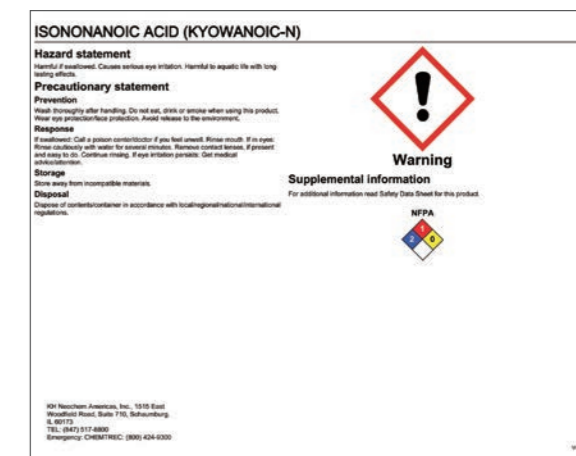
Safety Data Sheet (SDS)

At KH Neochem, we create a Safety Data Sheet (SDS) for all products that we guarantee the quality of, and we provide these sheets to customers and distributors. For export products, we prepare and provide the SDS using the official language of the country concerned, in line with the legal framework of the exporting country.

Yellow card (front, in Japanese)



Container labels (KH Neochem Americas Version)



SDS (General-purpose English-language version)



Industrial safety measures

Action plan for industrial safety

An Industrial Safety Action Plan was put together by the Japan Petrochemical Industry Association on July 4, 2013, based on a requirement from the Ministry of Economy, Trade and Industry that industry organizations formulate action plans to prevent industrial accidents. This plan was partially revised on May 25, 2017. The guidelines for measures taken by KH Neochem in accordance with this Action Plan are publicly released as follows:

Heading	Status	Related page no.
<p>1 Corporate management's commitment to industrial safety</p> <p>Basic philosophy and basic guidelines relating to security and safety</p> <p>Allocation of resources to industrial safety</p>	<p>On the basis of the Basic Safety Philosophy that (1) safety is the foundation of company management and (2) safety can be obtained by the participation, self-awareness, and efforts of all personnel, the president has established our RC Program Policy and Fundamental Policy for Safety Management and is promoting an RC program that includes safety management activities.</p> <p>Human resources: We are acting to rehire employees who have resigned on reaching the mandatory retirement age and having them pass on their technology to younger employees. We are hiring human resources with a focus on our concept for future personnel.</p> <p>Maintenance and equipment investment: We conduct systematic inspections of exterior surface corrosion for the purpose of preventive maintenance.</p>	<p>P. 18 and p. 31</p>
<p>2 Setting industrial safety targets</p>	<p>Targets of zero work-related accidents, zero safety-related accidents, zero environmental accidents, zero compliance violations, and trouble reduction have been set.</p>	<p>P. 19</p>
<p>3 Formulation of implementation plans for industrial safety measures</p> <p>Risk assessment (RA)</p> <p>Education and training for human resource development</p> <p>Active use of accident information</p> <p>Organizational management</p> <p>Equipment safety and measures against deterioration</p> <p>Voluntary earthquake-resistance diagnoses of existing piping systems in high pressure gas facilities</p> <p>Adoption of new techniques and technology to enhance safety</p> <p>Implementation of safety management that also includes cooperating companies</p>	<p>We conduct risk assessments that extend to (1) risk and hazard factors that can be anticipated to result in work-related accidents, (2) risk prediction activities making use of "hiyari hatto," close call recognition, and "kigakari memos," memos on matters of concern, (3) the startup period for new processes (potential risks in a plant and problems in operation), and (4) irregular situations and times of emergency.</p> <p>The effects in the event of departure from plant operating procedures are examined using "What-if" or HAZOP methods to understand the principles involved ("Know-Why"). At the same time, the potential risks and problems with operation of the plant are identified and a systematic examination is made of whether or not safety measures are sufficient. We are taking these steps to heighten plant safety.</p> <p>We are conducting technical training to develop understanding of basic technology, carrying on education using educational materials and equipment, and conducting training for emergency scenarios as well as emergency reporting drills.</p> <p>For accidents that occur within the company, as well as for other risk situations, we survey and investigate the causes and discuss whether there are any problems with the corrective measures taken. For accidents that occur at other companies, information on accidents involving facilities that can be considered to have similarities with our facilities is subjected to accident case studies. In this way we make every effort to heighten the safety awareness of our employees, taking action to prevent the occurrence of similar problems.</p> <p>Technical study groups meet every month, and our corporate headquarters and our plants keep in close contact to pass on information. Liaison conferences of our three main business groups are held as necessary, and steps are taken for coordination and communication between all of the groups.</p> <p>We conduct systematic inspections of exterior surface corrosion for the purpose of preventive maintenance.</p> <p>Though only a critical Category III facility, we acted in our capacity as high pressure gas accreditation inspectors to assign priorities and carry out earthquake-resistance diagnoses of existing piping systems.</p> <p>We have incorporated sophisticated control programs into our operations management and are taking steps for further stability of our plants.</p> <p>We are conducting education and training for construction site supervisors, construction workers, transportation operations managers, transport crew members, and other such personnel.</p> <p>We have established safety cooperation councils in order to realize smooth operations, upgrading the safety of construction work done in our plants and work related to physical distribution.</p> <p>Our cooperating companies also participate actively in risk prediction activities by means of "hiyari hatto," close call recognition, and "kigakari memo," memos on matters of concern.</p>	<p>P. 23 and p. 24</p>
<p>4 Surveys, evaluations of achievement status of targets, and implementation status of measures</p>	<p>The Environmental and Safety Committee, which is chaired by the president, reports on and evaluates the status of progress toward targets and the progress of activities related to priority measures.</p>	<p>P. 18</p>
<p>5 Measures to promote autonomous safety activities</p>	<p>Improvement suggestions from employees are awarded points, and employees grouped at the top for high points per person are awarded commendations. The operating facilities organize seminars with outside speakers. They also participate in conferences, study groups, and other such events organized elsewhere.</p>	
<p>6 Making use of knowledge from outside the company</p>	<p>The Yokkaichi Plant and Chiba Plant underwent safety capability evaluations by a third-party organization (the Japan Society for Safety Engineering). Taking the findings into consideration, the RC Program has assigned priority to addressing matters that are indicated as weaknesses and, of those matters, dealing in particular with matters that need to be addressed by the company as a whole.</p>	
<p>7 Risk communication with regions, communities, and so on</p>	<p>We participate in the Chiba district and Yokkaichi district RC regional dialogue that is held every two years.</p> <p>Every year, we hold voluntary cleanup activities of roads around our plants.</p> <p>At the Yokkaichi Plant, we hold plant tours to which we regularly invite faculty and students from nearby universities.</p> <p>At the Chiba Plant, we hold plant tours every year to which we invite teachers and children from elementary schools.</p>	<p>P. 37 and p. 39</p>
<p>8 Measures to help prevent industrial accidents caused by earthquakes and tsunami</p>	<p>We have revised relevant documents in preparation for occurrence of a Tokai region earthquake, or other Nankai Trough earthquake, and have taken steps to improve responses to tsunami.</p> <p>Based on the most influential, 2011 edition of the tsunami inundation forecast published by Mie Prefecture, we have evaluated the phenomenon of tanks floating and drifting during flooding, and have taken measures to respond by changing the level of liquid surface to be managed and by manually closing the master valves on tanks.</p> <p>We hold evacuation drills on earthquake and tsunami scenarios at both of our plants.</p>	<p>P. 23</p>

About Management



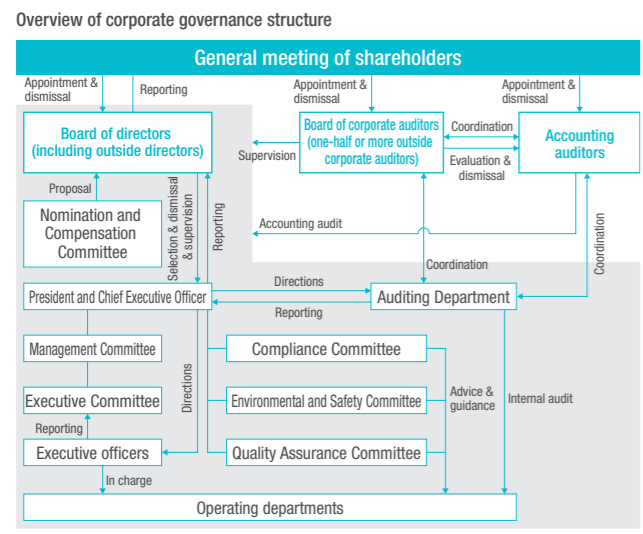
Corporate Governance

Basic conceptual approach

In accordance with the Corporate Mission of "Realizing a brighter tomorrow for society through the power of chemistry," the KH Neochem Group is committed to realizing sustained growth, medium to long-term heightening of corporate value, and sound management that assures transparency and fairness.

Corporate governance structure

- We are building a corporate governance structure that takes the following points into consideration and we are working to put that system into place:
- To strive for substantive assurance of the rights and equality of our shareholders and engagement in constructive dialogue with them.
 - To disclose accurate financial information and non-financial information, that is useful in constructive dialogues with our shareholders and other such purposes, with appropriate timing and in a readily understandable form.
 - To strive toward appropriate cooperation with stakeholders other than our shareholders.
 - For corporate executives and the board of directors to provide leadership toward the formation of a corporate climate of respect for the rights and perspectives of our various stakeholders and for ethics in business activities.
 - For the board of directors to fulfill its responsibility to exercise effective supervision from an independent perspective over the execution of duties by corporate executives, to make every effort to develop an environment that supports corporate management risk-taking, and so on.



Measures to strengthen corporate governance

KH Neochem is established as a company with a board of directors and a board of corporate auditors in order to provide for the speedy execution of business and appropriate supervision over the execution of duties by the executive directors. We create and disclose a Report on Corporate Governance concerning the status of implementation of corporate governance.

Board of directors

The board of directors of KH Neochem functions as a decision-making body with regard to matters set forth by legal statute and the corporate charter as well as important management matters, and it also functions as a supervisory body over the execution of duties by the executive directors. As a rule, the board of directors meets regularly once a month and once each quarter to approve the financial statement. The system also provides for extraordinary meetings of the board of directors to be convened as necessary in order to allow management decisions to be made without delay.

Composition of the board of directors

The board of directors of KH Neochem is composed of eight executive directors, among them three outside directors. The full-time directors have their respective wealth of work experience as well as specialized know-how from the management, marketing, production, research and development, accounting, finance, and other divisions, and they are capable of fulfilling their responsibilities effectively. The board of directors therefore has a well-balanced composition as a whole. The outside directors make use of their abundant work experience and high level of professionalism to express their views actively and directly as to whether management judgements are not distorting the corporation's in-house ethics as seen from the diverse perspectives of stakeholders and society. They also offer constructive advice and oversight. The term of service of the executive directors is set as one year in order to promote prompt responses to change in the management environment, as well as to make clear the management responsibility of the executive directors within the business year.

Corporate auditors and the board of corporate auditors

Corporate auditors meet with the board of directors, the Management Committee, and other important committees, where they audit the execution of duties by executive directors by stating their views as required, by examining important documents under consideration for approval, and so on. They also take steps for mutual coordination with

the Auditing Department and accounting auditors by regularly exchanging views and information, holding discussions with them, and so on. The KH Neochem board of corporate auditors has three members, including two outside corporate auditors. As a rule, the board of corporate auditors holds regular meetings once a month and also holds extraordinary meetings as necessary. They take steps for mutual information sharing with corporate auditors, formulating auditing plans, examining audit implementation status and audit results, and engaging in related activities.

Nomination and Compensation Committee

KH Neochem has acted to heighten the transparency and fairness of the decision-making processes regarding the nomination and compensation of executive directors and executive officers by establishing a discretionary Nomination and Compensation Committee with an outside director as the chair and more than half of the membership composed of outside directors. In March 2018, we decided to abolish the executive directors' retirement benefits system and introduce a performance-linked, share-based compensation plan for executive directors, excluding outside directors, as a system to heighten the linkage with performance and the share price. This was approved at the eighth regularly scheduled general meeting of KH Neochem shareholders. These revisions of the compensation system for executive directors were realized as a result of proposals that this committee made to the board of directors.

Compliance

Basic conceptual approach

At KH Neochem, we consider compliance to be one of the essential and crucial components of CSR. We formulate our rules and regulations, then inspect our legal compliance status on the basis of Compliance Guiding Principles and compliance regulations, and we make every effort toward strict implementation. We also make every effort to ascertain the status of compliance promotion in the KH Neochem Group, and we are taking appropriate measures accordingly.

Measures for compliance

Compliance Guiding Principles

We take action according to a high ethical standard that is embraced by the Corporate Mission of "Realizing a brighter tomorrow for society through the power of chemistry" and the management stance of, "Making our dream a reality through reliable technology and new inventions." Our aim is to be a corporation that earns the trust of society.



The Compliance Guiding Principles section on the KH Neochem website

Compliance Committee

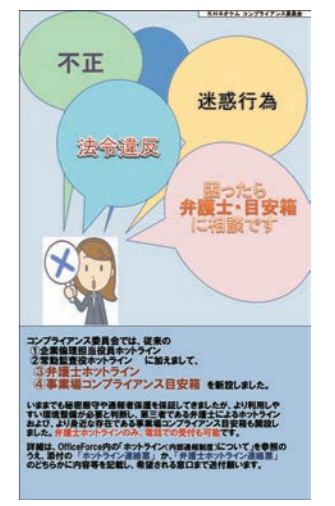
KH Neochem has established a Compliance Committee in order to plan and formulate basic guidelines regarding compliance, provide opinions to the board of directors, address serious problems concerning compliance, to provide compliance-related advice, guidance, education, and consciousness raising, and to deliberate on rules and regulations relating to other aspects of compliance in the KH Neochem Group. The membership of this committee is made up of full-time directors, full-time corporate auditors, executive officers, managers of departments and offices at corporate headquarters, and managers of operating facilities. As a rule, the committee meets twice a year.

Internal notification system

This company takes steps to prevent acts that violate laws and regulations, by following the Compliance Guiding Principles, before they are committed. In the unlikely event that such acts are committed, however, we have in place an internal notification system called the Hotline as a way to address such situations appropriately. Specifically, we make hotlines available for use by executive officers, employees, temporary employees, and any others concerned. We have developed a system that allows for use of a variety of routes, including the hotline for executive officers responsible for corporate ethics, the hotline for full-time corporate auditors, the corporate attorney's hotline, and the operating facility compliance complaints and suggestions box. In order not to subject notifiers to any disadvantage, confidentiality is strictly observed and in-house company regulations state explicitly that notifiers are to be protected.



Hotline notification form that allows for anonymity



Internal notification system poster

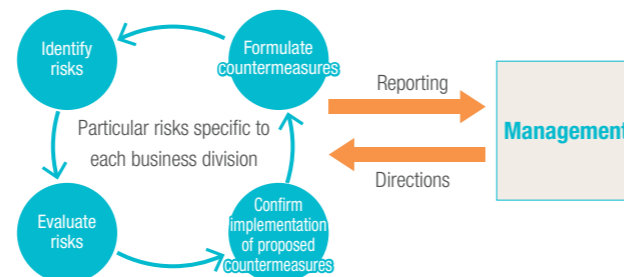
Risk management

Basic conceptual approach

The KH Neochem Group has established risk management rules, and we are engaging in company-wide risk management so that we can earn the trust of our customers and people in the community.

Risk management system

All of our business divisions conduct inventories of risks that could affect management and business activities of companies in the KH Neochem Group. We calculate risk levels according to the impact and likelihood of the listed risks, and draft proposals for measures to prevent risks from materializing as well as to reduce their impact. The Risk Management Office examines the appropriateness of proposed measures and assigns risk levels based on the results of the risk inventories, then provides management with notifications and reports regarding risks of high priority.



Cybersecurity measures

At KH Neochem, we operate our information systems based on internal management rules and appropriately to the importance of the system concerned. In this way we make every effort to prevent improper external access to company information, and information leakage caused by the loss of recorded data media and so on. We conducted risk assessments of the control systems for our plants in 2017, and we made updates and revisions to portions of our plants' written operational procedures based on the results.

Action plan for industrial safety

In response to a requirement from the Ministry of Economy, Trade and Industry, the Japan Petrochemical Industry Association put together an Action plan for industrial safety intended to prevent industrial accidents. KH Neochem is taking measures to reduce the risk of accidents of all types based on that action plan. We report on this in detail on pp. 26-27.

COLUMN The 5C Credo

We enacted the "5C Credo" in September 2018. This takes the KH Neochem statement of Basic Behavior, "Taking the first step to overcoming barriers and issues we face," and places it in the context of specific examples of action so that employees can use it as a foundation for their own judgement when taking action. As a measure to achieve a more widespread awareness of the 5C Credo, a message from the president, together with a 5C Credo carry card that can be kept ready to hand, was distributed to all executives and regular employees of our Group companies. On the front of the card are the five important keywords that start with the letter C: Challenge, Curiosity, Communication, Courtesy, and Compliance. They are accompanied by examples of model conduct. In light of the crucial importance of compliance, the reverse face of the card contains a compliance checklist. We have also had 5C Credo posters designed for visibility to be placed where people will tend to notice them in every operating facility. KH Neochem is committed to realizing increased corporate value and further growth of our human resources by practice of the 5C Credo.

* Credo is a Latin word that indicates intention or belief, and in our usage it is the simple expression of values and a norm for action providing a basis for corporate activities.



5C Credo card



5C Credo posters

Working with Our Employees



Basic conceptual approach

We provide our employees with workplaces where it is easy to work and workplaces where it is rewarding to work. We promote the creation of healthy workplaces while supporting all of our individual employees in demonstrating their capabilities. Specifically, we actively promote the operation of a personnel system that is oriented toward realizing a work-life balance, create personnel development plans and rotation for employees, and provide education, training, and welfare activities for employees.

Creating workplaces where it is easy to work

Measures to establish a work-life balance

We make every effort to create a workplace environment where it is easy to work. This enables our employees to achieve a balance between their work and home life, while also demonstrating their work capabilities to the fullest.

Personnel systems for child rearing and nursing care

Child rearing	Measures
Childbirth	<ul style="list-style-type: none"> Maternal health management Prenatal and postnatal leave (6 weeks prenatal, 8 weeks postnatal) Childbirth leave (3 days)
Leave of absence	<ul style="list-style-type: none"> Leave of absence for child rearing (until child is 2 years old)
Achieving a balance between child rearing and work	<ul style="list-style-type: none"> Child rearing time (twice daily, 30 minutes each) Shorter work hours (until child completes third year in elementary school) Overtime work exemption or limitation Exemption from work on days off Exemption from late night work Leave for child nursing care (5 days per year; 10 days when two or more children are involved) Use of cumulative annual leave for child care
Nursing care	Measures
Leave of absence	<ul style="list-style-type: none"> Leave of absence for nursing care (within a 365-day period, can be divided over a maximum of three times)
Achieving a balance between nursing care and work	<ul style="list-style-type: none"> Shorter work hours Overtime work exemption Exemption from work on days off Exemption from late night work Leave for family nursing care (5 days per year, 10 days when involved family members number 2 or more) Use of cumulative annual leave for nursing care

Encouraging employees to take their annual paid leave

We are taking various measures in order to increase the percentage of annual paid leave days taken. These include systematic assignments of leave, setting aside days recommended for taking annual leave, and so on.

Performance in annual leave days taken	84.2%
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Reduction of overtime work hours

Each of our operating facilities designates "no overtime days" (days for leaving work at quitting time) in order to help employees harmonize their work life and their home life.

Monthly average overtime work hours	16.97 hours
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Making use of the flextime system

We have introduced a system of flexible working hours so that employees can work efficiently while taking steps to harmonize their life and work. Employees can decide their own times for coming to work and leaving work, so long as they are within working hours.

Measures for diversity

System of reemployment after mandatory retirement

For employees who are healthy and motivated to work, we have created a system to reemploy them even after they have reached the mandatory retirement age of sixty. This enables them to continue putting their experience and knowledge to good use. As of June 2018, we have reemployed 44 people in this way.

Employment of people with disabilities

We are taking measures to promote expanded employment of people who have disabilities, and we are working to create a workplace where they can work with a sense of fulfillment while bringing their capabilities and competence to bear in their work.

Employees of foreign nationality

As society becomes progressively more global, KH Neochem is also taking active measures to hire people of other than Japanese nationality.

VOICE

Employees speak out



Keiko Hashimoto
Quality Control Section
Yokkaichi Plant

Using a System that Allows for Child Rearing

I am presently using the system of shorter work hours for child rearing. The system didn't exist when I had my first child, so I had to use overtime childcare every day. That was a real struggle, but after I had my second child, the system was set up so that now I am working hours that are shortened by one hour and 40 minutes. Today I am working while bringing up three children, and I am doing my best while using the nursing leave, flextime, and other such systems. I know that I am able to achieve a balance between work and child rearing in this way because of the understanding of the people in the workplace, and I am grateful.

Creating workplaces where it is rewarding to work

Measures to promote active participation by women

In conjunction with enactment of the law concerned, KH Neochem formulated a general employer action plan and has been implementing programs to achieve the plan. Attitude surveys on what makes work worthwhile have been conducted since 2016. On completion of the

second survey, the average scores for women have risen, though slightly, by comparison with the first survey. Going forward, we intend to pursue development of a workplace that will enable all our employees to enjoy working energetically.

Human resource development through education and training

We are placing an emphasis on group training as one method of human resource development. Programs are created to provide the necessary training according to participants' ranks, job classifications, and other such factors. In this way we conduct effective education and training. In addition, for employees who have the active will to seek growth on their own, we have established a program to provide support for part of their expenses.



A diagram of the KH Neochem education system

Job grouping	Rank	1 Rank-specific education	2 Theme-specific education		3 Language training, etc.	4 Business leadership development education
			① Communication	② Business skills		
Managers	Department manager class and above					
	Section manager class and above	New managerial appointment training		Leadership		
S	Assistant manager class		Memoirs for emerging in the workplace	Coaching		
R (advanced)	Foreman & specialized staff class	Mid-level employee training		Team building	Business finance and accounting strategy (correspondence education)	
	C	Mid-level class	Presentations (correspondence education)			
R (beginner)	B-A	General employee class	Logical thinking	Improvement and creation	Overseas language training Languages e-learning (English)	Assignment to business school
				Business finance and accounting strategy (correspondence education)		
Unrated	New employee class	Follow-up training		High pressure gas production safety manager (class B)		
	Provisional hire class	New employee training				

VOICE
Employees speak out

Naoko Ueda
On secondment J-PLUS Co., Ltd.

After Participating in Group Training
I learned from training about the mechanism of thinking that casts off fixed notions and preconceptions and comes up with free ideas. I went to take part with the idea that training was for younger people, which was truly a fixed notion, and I learned a number of things that I could see were relevant to my own thinking. I also was able to have exchanges with other training participants from the Chiba and Yokkaichi Plants, who I have dealt with in my work but haven't had the opportunity to meet yet. That also made this training very meaningful. In the future, I would like to tackle my work without being overconfident in my own experience, and always with a positive attitude.

VOICE
Employees speak out

Hisashi Okimura
R&D Department
Corporate Headquarters

After Studying Language by e-Learning
This training had vocabulary, grammar, and listening comprehension sections, but it also had pronunciation checks using a microphone, so I was able to do some very practical study. Another point was that the study curriculum was arranged to tell a story, and I was able to start studying at a stage matched to my own learning level, so I feel that I was able to get in a continuous program of English study without having to strain. My job brings me into contact with some foreign customers, so I hope to put the English I have learned to practical use while continuing my English study so that I can step up to more advanced levels in the future.

Creating a healthy workplace

Measures to promote mental health and prevent harassment

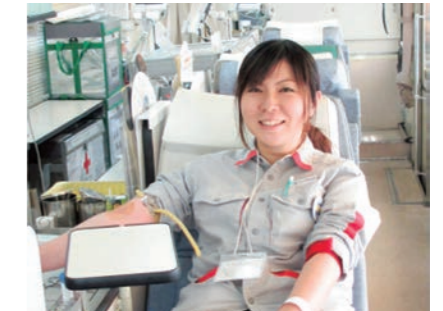
We consider mental health measures and harassment prevention measures to be crucial issues for the company. We conduct periodic training for employees and for managers and supervisory personnel. The stress

checks that were made mandatory in 2016 have now been conducted twice at KH Neochem, and we reached a 97.1% check participation rate.

Health management measures

We are implementing a variety of measures in addition to everyday health maintenance so that employees can work in better health.

Smoking cessation program	Quit smoking challenge
Measures to counter insufficient exercise	Participation in walking events
Disease prevention	Conducted health survey meetings, simple checks for tumor biomarkers, health lectures
Other	Blood donation campaign, stress checks, etc.



Employee social society activities

We provide subsidies for participation costs or other such support for recreation and all types of club activities at the workplace level, and we plan parties, badminton meets, and so on as activities for all employees. The purpose is to aid in achieving smooth exchanges and communication among employees.



Warm-up exercises before sports recreation session at Yokkaichi Plant



Headquarters-wide event at Corporate Headquarters

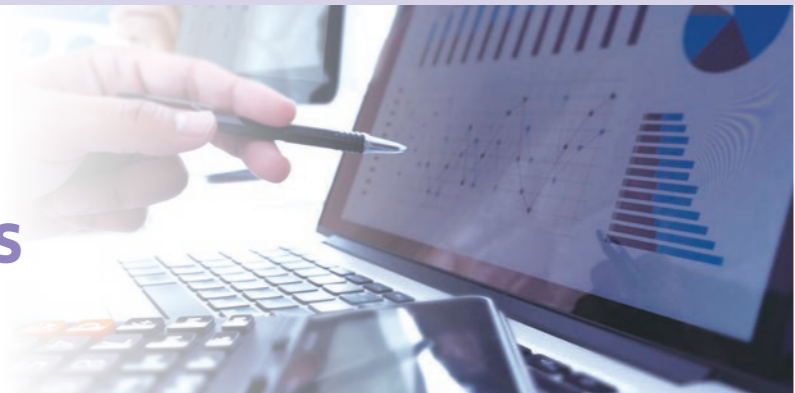
VOICE
Employees speak out

Yuta Amagasa
Quality Assurance Section
Chiba Plant

After Participating in a Plant-Wide Event for the Chiba Plant
Thanks to everyone who did the planning and preparation for the party, I was able to enjoy sideshows, a drawing, splendid food, drinks, and so on in abundance. I had a wonderful time. The party also brought me together with people from other departments and units who I ordinarily have little contact with, so the event leaves me with very good memories. The event this time was positioned as a fifth anniversary celebration of the change in company name, and I hope this will be continued at 10 years and 20 years and so on. As the company grows, I would like to do my best to grow, as well, one step at a time.



Working with Our Shareholders and Investors



Basic conceptual approach

In order to provide a deeper understanding of the corporation, KH Neochem actively communicates information to shareholders and investors, and then engages them in constructive dialogue.

Opportunities for communication with shareholders

Convene general meeting of shareholders

KH Neochem holds its regularly scheduled general meeting of shareholders in March every year. The general meeting of shareholders is the corporation's highest decision-making body. We also consider it a valuable opportunity for us to engage directly in dialogue with our shareholders, and we make every effort to schedule the meeting for a time and place that will make it easier for shareholders to attend. We use spoken narration, video imagery, and other such means to explain matters at the meetings,

and we strive to make the descriptions of our business and our initiatives readily understandable. We added an initial trial at the 8th regularly scheduled general meeting of shareholders by setting up an exhibit area introducing our businesses and showing how KH Neochem products are used in familiar items in our daily lives. We were asked many questions by shareholders, so we were able to make this into a good opportunity for dialogue with shareholders.



The general meeting of shareholders in session



A view of the exhibit area introducing our businesses

Ties with Our Shareholders and Investors

KH Neochem corporate executives take the initiative to engage in active communication with shareholders and investors in order to deepen their understanding of the substance of our business and our performance. In addition to the financial results briefings that we hold four times a year, during 2017 we carried out a program of active engagement with institutional investors in Japan, Europe, America, and Asia. This resulted

in approximately 260 individual meetings where we held constructive dialogues regarding our management policy and initiatives, our performance, and so on. We also invited analysts and institutional investors to KH Neochem plants in Yokkaichi City in Mie Prefecture and Ichihara City in Chiba Prefecture, where we conducted tours. While they viewed quality manufacturing on-site, we were able to give them introductions to how KH

Neochem products are used in various fields, and what kind of contribution they are making to society. We also introduced our safe operations as well as environmental policies and measures and related matters.

We took steps to communicate with many of our individual investors at the "TSE IR Festa" in February 2017 and at an investors' briefing in Yokkaichi in November of that year. These were extremely meaningful occasions for KH Neochem executives to field questions from individual investors, to hear their thoughts and impressions, and to exchange views with them.

The state of these activities at KH Neochem is made available to the public in the IR section of our website. We are making progress in enhancing our corporate communication by streaming video and voice recordings of financial results briefings, publishing an annual report and a pamphlet introducing our business titled "Look! KH Neochem in our every lives", streaming a KH Neochem introductory video, and other such measures. In addition, the views and impressions we receive from shareholders and investors are shared among corporate executives every month, and



A plant tour was held here at the Yokkaichi Plant, in Mie Prefecture



IR briefing for individual investors (Ichihara City, Chiba Prefecture)

we incorporate those comments into management as necessary. We will maintain our commitment to engage in active communication and we will do all we can to convey information to our shareholders and investors in a timely manner and readily understandable form.



"Look! KH Neochem in our every lives"



Website page showing the KH Neochem introductory movie



IR briefing for individual investors at TSE IR Festa

Introduction to IR Activities in 2017

No.	Month	Description of activity	Reference
1	February	Financial results briefing	2016 financial results
2	February	TSE IR Festa	Exhibited, held briefing
3	March	Overseas Investor Conference	European and American investors
4	April	Plant tour for institutional investors	Yokkaichi Plant
5	May	Financial results briefing (telephone conference)	1st quarter 2017
6	June	Overseas IR	London, York
7	August	Financial results briefing	2nd quarter 2017
8	September	Overseas Investor Conference	North American investors
9	October	Overseas IR	New York, Chicago
10	November	Individual Investor Briefing	Yokkaichi
11	November	Financial results briefing (telephone conference)	3rd quarter 2017
12	December	Plant tour for institutional investors	Chiba Plant
13	December	Overseas IR	Hong Kong, Singapore

VOICE
Employees speak out

Kentaro Takagi
Finance Division
Corporate Headquarters

Active IR Activities
In the Finance Division, we engage actively in dialogue with institutional investors and stock analysts inside and outside Japan. When holding financial results briefings and individual interviews, we make every effort to create accurate and concise information materials and to give conscientious explanations. Shareholders and investors have recently been showing greater concern for ESG management, so we are receiving a growing number of inquiries not just about the substance of our business and our performance, but also about management structure, responses to issues in society, and so on. For these dialogues, therefore, it is essential for us to coordinate with other departments in charge of those matters. Statements made by an IR division are also taken to express the thinking of the corporation, so we feel a sense of responsibility together with the satisfaction of doing a job responsibly. I intend to continue engaging in IR activity with a sense of commitment so that KH Neochem can go on receiving support from our shareholders and investors.

Measures taken at plants



Yokkaichi Plant and Yokkaichi Research Lab

Plant profile

Location
 • **Umaokoshi Plant and Yokkaichi Research Lab**
 2-3 Daikyo-cho, Yokkaichi City, Mie Prefecture

• **Kasumigaura Plant**
 1-4 Kasumi, Yokkaichi City, Mie Prefecture

Number of Employees
 358 employees
 (as of August 2018)



Yoshiaki Kondo
 Plant Manager*

Environmental data

Description	Amount
Specific energy consumption [L/t]	205
SOx amount released [t]	0
NOx amount released [t]	284
Dust amount released [t]	2.1
Total effluent discharged [kt]	2626
COD amount released [t]	13.8
T-N amount released [t]	1.6
T-P amount released [t]	1.6
Amount of waste generated [t]	51445
Amount disposed of as landfill [t]	0.2

Amount of PRTR Act Type 1 designated chemical substances released

Description	Amount
Acetaldehyde	2.7
2-Aminoethanol	1.9
Isobutyl aldehyde	2.2
2-Ethylhexanoate	0.2
Ethylene oxide	0.4
Toluene	0.8
Boron compounds	0.1
Phthalic anhydride	0.2
Dioxins (unit: mg-TEQ)	(135.0)
Others (12 substances)	0.0

Unit: t
 Period covered: April 1, 2017 to March 31, 2018

Environmental and safety topics

- Participated in a volunteer cleanup of Takamatsu shoreline, Kawagoe-cho
- Participated in a volunteer cleanup of National Highway 23 pedestrian crossings
- Japan Boiler Association's Mie Branch awarded two people commendations as operations chiefs in the use of class-1 pressure vessels in fine chemical facilities
- Mie Prefecture High Pressure Gas Safety Association awarded one person, a safety supervisor, the Mie Prefecture High Pressure Gas Safety Association Director's Commendation

* Since October 1, 2018

Yokkaichi Plant and Yokkaichi Research Lab initiatives

Cutter boat races



We participated in the Yokkaichi Port Festival cutter boat races. Although we entered with a team made up entirely of inexperienced people, the whole team was able to make it through to the goal and have a valuable experience. We will take part in more community events in the future and build points of contact with local people.

Tour of the Yokkaichi Industrial Complex



We held a tour of the Yokkaichi Industrial Complex jointly with Yokkaichi City and three other, neighboring companies. Inviting local university students majoring in mechanical, electrical, and electronic engineering, we endeavored to stimulate their interest in corporations at the industrial complex as places of possible future employment.

Volunteer cleanup



On Ocean Day, we participated a volunteer cleanup of the Takamatsu shoreline in the vicinity of the Kasumi Industrial Complex, as part of the Great Ise Bay Forest, River, and Ocean Cleanup Project.

Local community cleanup activities



This was the eighth time for us to hold in local community cleanup activities, which have become established as a regular event. A total of 73 participants arrived at the plant earlier than usual and cleaned up the sidewalks of National Highway 23 in the Umaokoshi District before starting work.





Chiba Plant

Plant profile

Location
11-1 Goi Minami-kaigan
Ichihara City, Chiba Prefecture

Number of Employees
116 employees
(as of August 2018)



Akio Nakahashi
Executive officer
Plant Manager

Environmental data

Description	Amount
Specific energy consumption [L/t]	184
SOx amount released [t]	2.3
NOx amount released [t]	37.1
Dust amount released [t]	3.6
Total effluent discharged [kt]	1769
COD amount released [t]	12.0
T-N amount released [t]	9.0
T-P amount released [t]	0.6
Amount of waste generated [t]	3260
Amount disposed of as landfill [t]	0.9

Amount of PRTR Act Type 1 designated chemical substances released

Description	Amount
2-Aminoethanol	0.0
Isobutyl aldehyde	0.0
Cobalt and its compounds	0.5
Decyl alcohol	0.0
3,5,5-Trimethyl-1-hexanol	0.4
Toluene	0.0
1-Nonanol	0.0
Phthalic anhydride	0.0
Dioxins (unit: mg-TEQ)	(0.0)

Period covered: April 1, 2017 to March 31, 2018

Environmental and safety topics

- Participated in Ichihara Environmental Festival
- Participated in a volunteer cleanup of National Highway 16
- Chiba Labor Standards Society awarded one person a commendation as an outstanding worker
- Japan Boiler Association's Chiba Branch awarded one person a commendation as an outstanding boiler engineer

Chiba Plant initiatives

Japanese white pine preservation



The Japanese white pines of Chiba Prefecture are endangered, and having registered the Chiba Plant as a "supporter of Japanese white pine lineage preservation," we planted seedlings in front of the office here. These are still no more than little seedlings, but we are watching over their growth with care in cooperation with the efforts to maintain biodiversity in the Boso area.

Plant tour for elementary students



We received approximately 117 children from local elementary schools and held plant tours as part of Ichihara City's environmental month. The students took notes, asked a large number of questions, and showed their enthusiasm for learning about petrochemical plants.

Goi Rinkai Festival



The 42nd Goi Rinkai Festival was held in Ichiharyokuchi Sports Park and we set up a stall again this year. We sold sweet buns as we did last year, and were fortunate to enjoy good weather. Partly for that reason, we attracted many customers and were completely sold out by afternoon. We intend to continue spreading this circle of connection in the future, and we will go on contributing to our local communities.

11th RC Chiba District Gathering for Dialogue with Local Communities



The 11th RC Chiba District Dialogue with Local Communities was held, and KH Neochem took part as one of the member enterprises. Taking "corporate environmental conservation and safety and disaster prevention," as the topic, cases of RC activity by the various companies were introduced and panel discussions were held. There were 131 participants.

Fiscal year 2018 company-wide social contribution activities

KH Neochem has been carrying out company-wide social contribution activities since last year (see pp. 10-11) as a way to further strengthen our social contribution initiatives. In 2018, employees from all of our businesses will gather at the Ichihara Sports and Recreation Park near the Chiba Plant to carry out activities related to KH Neochem business. (Scheduled to take place in November.)

