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#### **About This Report**

#### To All Readers of the Kureha CSR Report 2017

The Kureha CSR Report 2017 was prepared for the purpose of reporting the Kureha Group's Corporate Social Responsibility (CSR) initiatives and activities during fiscal 2016. This English report is composed of information selected from the Kureha CSR Report 2017 published in Japanese, and includes a company overview and information on the Kureha Group's efforts and activities using relevant examples and data. Since Kureha is a chemical company, special emphasis has been placed on the information related to its Responsible Care (RC) activities and performance.

#### Companies Covered in This Report

#### CSR Activities

Kureha Corporation and its 34 consolidated subsidiaries, 2 (equity method) affiliates, and 1 non-consolidated subsidiary (Sunshine Kureha Co., Ltd.)

#### RC Activities

Kureha Corporation and 12 subsidiaries

- Kureha Corporation
- Kureha Extech Co., Ltd.
- Kureha Gohsen Co., Ltd.
- · Kureha Unyu Co., Ltd.
- · Kurehanishiki Construction Co., Ltd.
- . Kureha Engineering Co., Ltd.
- Kureha Ecology Management Co., Ltd.
- Kureha Special Laboratory Co., Ltd.
- Kureha Extron Co., Ltd.
- Resinous Kasei Co., Ltd.
- KUREHALON B.V.
- Kureha (Shanghai) Carbon Fiber Materials Co., Ltd.
- Kureha Vietnam Co., Ltd.

#### Reporting Period

In principle, the reporting time frame for Kureha's CSR activities is the same as its fiscal year (from April 2016 to March 2017). However, some sections of this report may refer to the calendar year (from January 2016 to December 2016) or activities after April 1, 2017.

#### ■ Reporting Guidelines

- ISO 26000
- Ministry of Environment "Environmental Report Guidelines (2012 edition)"

#### ■ Date of Publication

December 2017

### **Corporate Identity**

Mission

The Pursuit of Excellence



- · We treasure people and the natural environment
- We constantly evolve through innovation
- We contribute to society by developing beneficial products

Employee Code of Conduct

We always act as global corporate citizens, recognizing our corporate social responsibilities.

- In relation to our clients
- In relation to our work

In relation to our colleagues

- Customer satisfaction is our prime priority
- We will always pursue progress and innovation
- We will maintain a global perspective as we respond to change

Mutual respect and teamwork will always be fundamental to sound employee relationships

# Message from the President

#### "Kureha's Challenge 2018" Mid-Term Management Plan

The Kureha Group's main business areas are "the environment," "energy," and "quality of life (medicine, food)." We are focused on making fiscal 2016 to 2018, the period of the new mid-term management plan, "Kureha's Challenge 2018," a period to lay the foundation for Kureha's future expansion. This will involve improving existing business competitiveness and profitability, achieving polyglycolic acid (PGA) business growth, and seeking out new business themes in our business areas.

Fiscal 2016 sales revenue was \$132.3 billion with operating income of \$9.3 billion. Fiscal 2018 targets are sales revenue of \$160.0 billion and operating income of \$14.0 billion. Carrying out CSR management and strengthening our business base are key management objectives we will pursue as we aim to be a high value-added enterprise that continues to contribute to society.

#### **Promoting CSR Management**

I believe that society gives life to corporations, and the company needed by society will continue to prosper. This is why I work to strengthen our CSR management. To this end, in fiscal 2016 we identified CSR material issues and put together the CSR Master Plan, which categorizes them as being related to the environmental, social and governance (ESG) issues.

Responsible Care activities are important when manufacturing products as a chemicals company. Under the slogan "prioritize safety above all else," all workers at all of our manufacturing sites work to maintain and improve safety.

The Employees Shine-up Project was launched in May 2015, and I have received reports of greater communication and improved human resource systems. These reports have spurred a renewed determination in me to take a "P (passion), S (speed), and C (commitment)" mindset to making our company shine together with all employees.

A harmonious existence with communities is a major pillar of our CSR approach. One member of the Kureha Group, Kureha General Hospital provides support for better health and peace of mind to community residents. And through the operations of Sunshine Kureha, a special-purpose subsidiary that was established in 2014 and that employs people with disabilities, we help those with disabilities achieve independence and participate in society.

In order to survive into the future as a company which contributes to society, Kureha must create an image of what it should be in the future, make bold changes, and make it reality. This future image must be created from a clean slate and free from conventional thinking. I want to make Kureha a highly productive company through innovative cost reductions and operational efficiency which allow a work-life balance, and so on.

As one of Kureha's leaders, I see my primary responsibility as achieving stable profits no matter the business conditions, while at the same time making our employees happy. To achieve this, I hope to act as a model for others with a focus on staying reform-minded and innovation-minded, maintaining a sense of urgency.

November 2017

Driving Innovation and Reform with a P (passion), S (speed), C (commitment) Mindset.



Zertaka Kobayaski

# Profile of the Kureha Group

Kureha Corporation is a manufacturer of highly innovative specialty chemicals and plastics that leverage proprietary technologies to create advanced materials, agrochemicals, pharmaceuticals, packaging materials, and other such products used in many aspects of people's lives. Since its establishment in 1944, Kureha has taken advantage of its strengths in technology and innovation to provide a wide range of solutions suited to the market needs of the time.

#### Corporate Profile (as of March 31, 2017)

Head Office KUREHA CORPORATION

3-3-2 Nihonbashi-Hamacho, Chuo-ku, Tokyo

103-8552

President and CEO Yutaka Kobayashi Incorporated June 21, 1944 Capital ¥12,460 million

Net Sales ¥132,294 million (FY2016)

Primary Businesses Manufacture and sale of advanced materials,

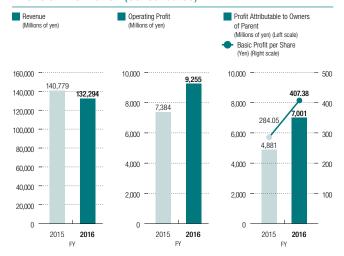
specialty chemicals, and specialty plastics

Number of Employees 4,426 (consolidated)

1,877 (non-consolidated) http://www.kureha.co.jp/

#### Financial Information (Consolidated)

**URL** 



#### **Business Overview**

#### **Advanced Materials**

Advanced materials created with Kureha technologies help support a wide range of pioneering industries.

#### Main products

Advanced plastics (polyphenylene sulfide, polyvinylidene fluoride, polyglycolic acid), carbon products

#### **Specialty Chemicals**

Our specialty chemicals contribute to advancements in agriculture, public health, and the growth of various industries.

#### Main products

Agrochemicals, pharmaceuticals, industrial chemicals

#### **Specialty Plastics**

Kureha products are present in our daily lives and leisure activities, enhancing convenience and safety in a variety of ways.

#### Main products

Food packaging materials, household packaging products

#### **Construction and Other Operations**

Kureha Group businesses include construction, engineering, environmental protection, logistics, and trading.

#### Main services

Construction, environmental, transport/storage, trading, real estate /insurance and medical care

#### Group Companies (as of March 31, 2017)

34 consolidated subsidiaries

#### Revenue by Segment (FY2016)



Unit: 100M yen

# Kureha Group's CSR

Integrating CSR into corporate management and business strategy helps improve corporate value and strengthen the company's competitiveness, and contributes to building a sustainable society. In accordance with our Corporate Philosophy and the Basic Policy on CSR, we will be carrying out CSR management.

#### Kureha Group Basic Policy on CSR

We will firmly adhere to the Employee Code of Conduct, practice the Corporate Philosophy, and continue to embrace challenge while aspiring to be an excellent company in our global business operations, social activities, and Responsible Care initiatives.

#### **CSR** Initiatives

In order for the Company to sustain growth, it must constantly and appropriately respond to various changes in today's globalized society. To keep up with those changes, it is important for us to maintain a dialogue with our stakeholders, listen to their opinions, and make sure they are reflected in the Company's management.

The Kureha Group's business focuses mainly on the chemical industry, with a special focus on Responsible Care activities, contributing to local communities, and human resource development. The group will continue to further develop its CSR activities in order to remain a company trusted and valued by society.

#### **CSR Activities**

In order to step up our CSR initiatives, in fiscal 2016 we made progress in building the CSR Management System based on the international standard ISO 26000 - Guidance on Social Responsibility. This took the form of identifying material issues that we would prioritize in various CSR issues relating to our business activities. Starting this fiscal year, we will be carrying out the PDCA (Plan, Do, Check, Act) cycle and making continuous improvements with a focus on these issues.

We are also giving attention to activities aimed at promoting a better understanding of CSR. For example, we conducted internal CSR seminars at different business sites, and a total of 460 employees attended. To complement these seminars, we made use of various media that included CSR Report and company newsletters. For the Company's president and officers, we conducted a CSR Internal Symposium. Run by an outside coordinator, the event was a conduit for an active exchange of views on the present and future of our CSR management.

Sharing information and keeping up a dialogue with our stakeholders are essential for informing them and giving them a better understanding of the company's efforts — which also give us an opportunity to re-examine these efforts and make improvements. In our activities going forward, we will make the most of the comments and opinions these people share with us through many opportunities that include CSR Local Dialogue Meetings and CSR Report.

Looking ahead, we will continue to strengthen our efforts as the Kureha Group while making a concerted effort group-wide to make society more sustainable.

#### Kureha's CSR Material Issues

#### Company's Foundation and Information Disclosure

- · Strengthening governance
- · Ensuring compliance
- Improving the Business Continuity Plan (BCP)
- Stepping up information security measures
- · Disclosing information and holding dialogues in a timely and appropriate fashion

#### Human Resource

- · Promoting respect for human rights
- · Developing human resources
- · Achieving a good work-life balance
- · Maintaining mental and physical health

· Improving customer support

#### Local Communities

• Enhancing dialogue with local communities

#### RC Activities

- . Conducting RC activities
- Taking global warming measures
- · Preventing air and water pollution
- · Appropriate management and reducing the amount of waste
- · Practicing security and disaster prevention
- · Promoting occupational safety and health, and eliminating personal injury accidents
- Improving quality assurance systems
- Improving quality

# Corporate Governance, Compliance and Risk Management

Kureha is committed to ensuring fair and highly transparent management according to our Corporate Governance Guidelines, through which Kureha pursues sustainable growth and improves the long-term growth of corporate value for the Kureha Group. In addition, Kureha is working to cultivate a compliance-focused corporate culture with a compliance program framework based on the Kureha Group Ethical Charter and its Compliance Rules.

#### Corporate Governance & Internal Control Systems

Supervisory and executive responsibilities are clearly distinguished to strengthen corporate governance and accelerate managerial decision-making and business execution.

The Board of Directors, which includes two outside directors whose duties are independent from those of inside directors, is limited to a maximum membership of ten directors and currently consists of five directors. The Board, presided over by the President & Chief Executive Officer, makes decisions on important management issues and supervises business execution. Auditing is performed by a team of three corporate auditors (including two outside corporate auditors).

To strengthen its internal control system, Kureha has established the Internal Control System Basic Policy along with committees and internal rules to ensure that it observes laws and regulations and conducts its business operations in an appropriate and fair manner. The Internal Control and Auditing Department acts independently of other departments and assesses the suitability and effectiveness of internal management control systems that include compliance and risk management.

#### Compliance with Japan's Corporate Governance Code

Japan's Corporate Governance Code is a compilation of various regulations aimed at ensuring substantive corporate governance at listed companies. It was formulated in March 2015 in response to revisions made to the Japanese government's growth strategy, the Japan Revitalization Strategy, in 2014.

Kureha considers thorough corporate governance to be of vital importance for strengthening the management base to achieve medium- to long-term corporate growth. In November 2015, the Company formulated its own Corporate Governance Guidelines to comply with the code.

#### **Putting Compliance into Practice**

The Compliance Committee, led by the President, has prepared a Compliance Handbook based on the Kureha Group Ethical Charter and its code of conduct. The Committee regularly conducts training programs with this handbook to convey to employees the importance of compliance and ensure laws and corporate rules are followed.

In addition, direct access to internal and external legal advisers for inquiries and reporting on compliance issues is maintained so that legal violations, whether confirmed or suspected, can be detected and deterred at an early stage.

#### Risk Management System

In response to various types of risk accompanying business activities, Kureha has established a risk management structure consisting of the Risk Management Committee, the CSR Committee, and the Information Management Committee. Each committee is tasked with recognizing related risks and proposing concrete measures to the President & Chief Executive Officer with the aim of reducing and avoiding risk.

In addition, to respond to unforeseen circumstances, the Business Continuity Plan is in place for the establishment of an emergency response task force, with the objective of giving the highest priority to the safety of personnel, minimizing economic damage, and ensuring the continuation of corporate activities.

In terms of information management, Kureha works rigorously to ensure appropriate security and disclosure based on its regulations for information control, security, and disclosure, with individual committees set up to oversee each of these areas.

# **Customers and Business Partners**

We utilize a system for collecting and quickly making the most of information and complaints from customers of household products. With our business partners, we build equal relationships and require that they demonstrate a regard for the environment.

#### **Customer Service**

The complaints and opinions expressed by customers who regularly use Kureha products are retained and managed after being received by our customer service. Kureha values direct feedback from its customers, and has been using the Customer Feedback Flow System since fiscal 2013 to utilize this information to make better products. We have maintained a database of more than 10,000 pieces of information that have been collected to date. Kureha departments work together and make effective use of this system in resolving and preventing problems, revising products, and developing new products.

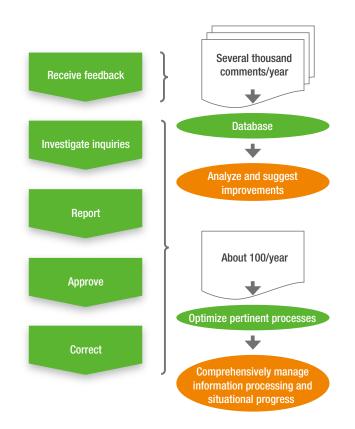
We have also operated a traceability system since 2008 for simultaneously tracking production lots and shipment receivers. When a quality problem occurs, we will take quick action and minimize damage.

#### **CSR Procurement**

Based on our CSR Procurement Guidelines, we aim to fulfill our social responsibility in the supply chain. For this purpose, we send check sheets to our suppliers in Japan to survey their degree of CSR fulfillment, and practice green procurement, which promotes the usage of environmentally friendly products and raw materials.

#### **Conflict Minerals**

Kureha views conflict minerals (e.g., gold, tantalum, tungsten, and tin) as an important issue concerning human rights. So, we have built a system for ensuring that these minerals and raw materials containing these minerals, are not used in our products.



### **CSR Procurement Guidelines**

#### 1. Human Rights and Labor

- · Respect basic human rights
- Do not engage in unfair discrimination with respect to employee compensation, benefits, hiring, etc.

#### 2. Occupational Health and Safety

- · Identify dangerous/hazardous factors and take appropriate measures
- Formulate emergency response measures and familiarize employees with them

#### 3. Environment

- Try to use raw materials and parts that have minimal environmental impact
- Properly manage specified chemical substances
- · Properly dispose of industrial waste

#### 4 Fair Trade

- $\bullet$  Do not engage in the improper giving or receiving of benefits
- Do not abuse positions of authority to disadvantage others
- Provide accurate information about Kureha's products, services, and business methods
- Observe laws, social norms, and company regulations applicable to our business activities

#### 5. Product Quality and Safety

· Build and utilize a quality management system

#### 6. Information Security

· Properly manage confidential and personal data

#### 7. Contribution to Society

· Engage in activities that contribute to the development of the international community and local communities

### **SOCIAL REPORT**

# **Employees**

Under the belief that employees are at the core of stable business, we have put together several educational and support systems.

#### **Human Resource Development**

Through on-the-job(OJT) and systematic off-the-job training programs, we provide every one of our employees with the opportunity for acquiring a sense of growth and working ambitiously.

Considering OJT as fundamental to human resource development, we train older employees to be good advisors for younger ones through mentor seminars, while we allow younger employees to arrange their educational plan by themselves, too.

At the same time, we concentrate on developing technically-proficient personnel to keep growing as a technology-oriented company. In fiscal 2017, we are going to roll out a new plan, which will give employees wider understanding of "Monozukuri", i.e. the art and science of manufacturing, based on both researchers' and manufacturers' views. In the plan, laboratory employees need to spend one year training at production departments while production personnel need to spend one year at laboratories.



Mentor training

#### Developing global staff

With an eye to growing our business in the global market, we offer proficiency level-based language training in English and Chinese and overseas study programs. In addition, in fiscal 2016 we started a new program in which we send production personnel to overseas production facilities for a short-term (1-2 weeks), aiming to make them globally-minded personnel.

#### In-house thesis review

In 1959 we started in-house thesis reviews for young researchers and engineers to improve their technical capabilities. In fiscal 2016, we expanded this program to employees in back-office and sales positions, too.



Outstanding thesis presentation session

#### Work-Life Balance

Japan has been trying to achieve reforms leading to working styles and labor practices that satisfy the needs of working people. Keeping in line with this, we are building workplaces that allow for a good balance with managing a family, raising children, providing nursing care, or other commitments outside of work.

One effort for this is to increase the number of employees who take time off to take care of a child or elderly person. Another is to cut down on overtime hours worked. We also rolled out flextime systems to allow employees to make the most effective use of their time.

#### Average monthly overtime hours worked



#### Health Care

We have been focusing on better employee health and promoting several activities.

Along with regular health checkups, employees receive advice about health and lifestyle measures against metabolic syndrome, if needed, from public health nurses. In addition, we hosted walking events and exercise classes inviting a coach from outside several times in fiscal 2016.



Exercise class

We are also turning our eyes to mental health. For example, we regularly conduct stress check tests to prevent mental problems among employees, provide mental health seminars and offer internal consulting services with doctors. In addition, for employees on leave for mental health issues, it is easy for them to return to work.



Mental health seminar

#### **SOCIAL REPORT**

# Community

Seeking to achieve a harmonious coexistence with communities, we are engaged in various efforts like dialogue meetings, cultural communications, supporting education and charities.

#### **CSR Local Dialogue Meeting**

Kureha has conducted CSR Local Dialogue Meetings in the Iwaki region once a year since 2003. With these meetings, we aim to gain the trust of the community by informing them about our efforts to promote safety in the Kureha Group's business activities and better mutual understanding.

The 14th meeting was held in fiscal 2016 and was attended by 145 people, among whom were local residents, members of nearby companies and local government.



CSR Local Dialogue Meeting

#### **Educational Support**

Kureha conducts science classes and plant tours for groups of elementary school students in the city of lwaki. These opportunities teach children the fun of science while opening their eyes to future career possibilities.

For middle school and high school students, we offer internships that provide the experience of doing a job. These students learn about the hardships of "Monozukuri" and the differences between a school and a company.



Science class (above), plant tour (below)

#### **Cultural Communication**

#### All Kureha Sports Festival

We conduct All Kureha Sports Festival every year as a means to promote amity between Company employees and community residents. Close to 2,400 people joined the festival in fiscal 2016, the 15th such event.



#### Iwaki Odori

Iwaki Odori is a traditional public dance event held in the city of Iwaki every summer. Kureha participates every year. In fiscal 2016, we had fun dancing as one of the 23 dance groups present.



#### Charities

#### Support for disaster victims

Kureha donated ten million yen through the Red Cross to support people affected by the large earthquake that occurred in Kumamoto Prefecture on April 14, 2016.

#### Pink Ribbon campaign

Kureha is a supporter of the Pink Ribbon campaign, a global enlightenment movement for the elimination of breast cancer. Since 2009 we have donated a portion of the proceeds from home goods sales to this cause through a related foundation in Japan.



#### Charity bazaar

We donated the proceeds from sales of foods and items in the bazaar held during All Kureha Sports Festival to two welfare facilities.



Donation to welfare facilities

## An Overview of Responsible Care and Activities

As a corporation that handles chemical substances, the Kureha Group voluntarily and continuously engages in Responsible Care (RC) activities and activities to ensure environmental and personal safety throughout the entire lifecycle of our products, which involves product development, manufacturing, distribution, usage, and final consumption, after which products are disposed of or recycled.

#### RC

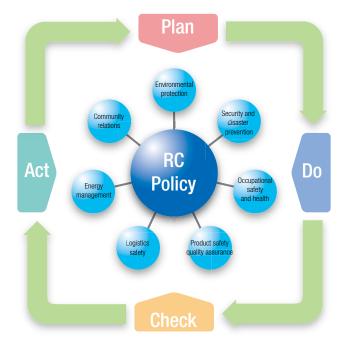
As a founding member of the Japan Responsible Care Council, we take a self-motivated approach to going above and beyond when it comes to environmental preservation, safety, and health, and complying with the law. We also respect social rights and aim to solve problems through dialogue with members of society.

#### **RC Management System**

We make continuous efforts to improve our RC management by using an environmental management system (ISO 14001), quality management system (ISO 9001), and occupational health and safety management system (OHSAS 18001), and carrying out the PDCA cycle.

#### ■ Management System Certification Dates

Factory	ISO 14001	ISO 9001	OHSAS 18001
Iwaki Factory	May 2001	Feb. 1996	Jun. 2004
Plastics Processing Factories	Nov. 2001	Feb. 1996	Feb. 2006



#### Declaration of Responsible Care Implementation

Kureha Corporation and the companies of the Kureha Group believe that preservation of the global environment and ensuring the safety and health of people are core elements of business operations. Recognizing these as our corporate social responsibility, we declare a commitment to implement responsible care. Kureha and the companies of the Kureha Group shall formulate and put into practice a plan of implementation under the following Responsible Care Policy.

This policy shall be applied in common to Kureha and the companies of the Kureha Group.

Kureha Corporation

#### **Responsible Care Policy**

#### Compliance with international regulations and laws

We shall comply with international regulations and domestic laws with respect to safety and disaster prevention, occupational safety and health, product safety, and preservation of the global environment, including the environment for community life, and shall participate actively in Responsible Care activities promoted by the Japan Chemical Industry Association.

#### Earth-friendly, safe operations

We shall take special care to preserve the global environment in our business activities, protect the safety and health of employees and the public in our operations, and make efforts to prevent accidents, disasters, and pollution.

#### Providing safe products to society

We shall quickly and accurately ascertain society's demands, making use of them in product design and manufacture, and shall provide products and services that customers can trust and use with peace of mind.

We shall also provide society with products and services that are safe, reliable, and environmentally friendly throughout the entire lifecycle, from product research and development through production and marketing to disposal.

#### Managing and putting to use environmental and safety information

We shall centrally manage appropriate information on the correct handling and disposal methods for our products as well as the environment, safety, and disaster prevention and shall provide such information to consumers, users, companies involved in product delivery, and others.

#### Building better relationships with society

We shall practice proper public relations through the provision of environmental and safety information, bearing in mind the concerns of administrative authorities and the public. We shall also participate actively as a citizen in the activities of civil society and strive to maintain and build better relationships with society.

### Summary Table of RC Activities

Areas	Goals	FY2016 Plan	FY2016 Performance	Self-Evaluation <sup>*3</sup>
Overall RC management	Continual improvement of RC activities	Enforce RC management, and actively address issues of individual departments	Conducted internal audits to check performance against RC targets in all manufacturing plants and offices     Received a QMS renewal review and EMS/OHSAS maintenance review, and maintained these systems     Accommodated revisions to 2015 edition QMS/EMS standards	ጵጵጵ
Environmental protection	Reduction of atmospheric emissions of chemical substances	Reduce emissions of PRTR chemical substances," dust, VOCs, odors and other hazardous substances	Emissions of PRTR chemical substances was 62 tons, down 3 tons from the previous fiscal year     Maintained strict controls over exhaust gas treatment facilities     No odor complaints reported	¢¢
	Improvement of discharged water quality	Enhance management of discharged water quality	Maintained stable operation at central discharged water treatment facility     Continued voluntary management of discharged water at the point of discharge for each plant	
	Proper management and reduction of waste materials	Execute mid-term waste reduction plan and promote recycling	Reduced industrial waste volume by 1,863 tons vs. the target and by 3,043 tons from the previous fiscal year, achieving the target     Final waste disposal volume increased by 142 tons from the previous fiscal year     Audited 19 outsourcing contractors for waste disposal	
Security and disaster prevention	Zero serious facility accidents	Maintain stable operation in all manufacturing divisions	Continued stable operations at each plant Improved emergency response capability with disaster prevention training, etc. One serious facility accident occurred (fire at an R&D facility)	
Occupational safety and health	Zero accidents causing serious personal injury	Zero Class 3 or worse personal injury accidents, one or fewer Class 4 accidents among manufacturing departments, back-office, and contractors <sup>2</sup>	One Class 3 personal injury accident and six Class 4 accidents occurred; target not achieved     Shared data with group companies on employees who were involved in accidents and conducted an in-depth study of past serious accidents.	
Product safety and quality assurance	Improvement of customer satisfaction	Reduce quality complaints and off-specification products by 15% from the previous fiscal year	The quality complaint target was not achieved but out-of-specification products decreased 18% from the previous fiscal year, meeting the target Audited 39 contractors, appropriate corrective actions taken on finding Conducted activities to improve safety and quality management systems in conjunction with overseas Group companies	
Energy management	Ongoing energy usage rationalization efforts	Reduce energy consumption intensity by 1% or more/year	Energy consumption intensity decreased 3.4% from the previous fiscal year     Transportation energy consumption intensity increased 2.0% from the previous fiscal year     Deployed energy-saving equipment in manufacturing divisions     Promoted company-wide energy-saving initiatives and activities	
Community relations	To be approved and trusted by society	Achieve harmony with local communities, and conduct risk communication	• Conducted 14th CSR Local Dialogue Meeting • Held science classes at elementary schools and engaged in other community volunteer activities • Conducted business site visits, tours, and Tour Kureha sessions	

<sup>\*1</sup> Pollutant Release and Transfer Register (PRTR) is the system whereby businesses self-measure volumes of potentially hazardous chemical substances emitted or transferred as waste and report these volumes to the government

<sup>\*2</sup> Personal accident classifications: Class 1 - Serious personal injury accidents including death, Class 2 - Personal injury accidents that result in leave from work for four days or longer, Class 3 - Personal injury accidents that result in leave from work for one to three days, Class 4 - Personal injury accidents that result in leave from work for less than one day

<sup>\*3</sup> Self-evaluation: \$\times Needs more effort , \$\times \times Achieved most targets, \$\times \times \times \times Achieved all targets

## **Environmental Protection**

In the interest of preserving the global environment, Kureha works hard to make effective use of resources, cut down on waste, and properly manage chemical substances emitted into the environment. We also make the results of these endeavors public.

#### Prevention of Global Warming

To prevent global warming, we are working to rationalize the use of energy at the distribution stage, in addition to efforts being made at our production sites, offices, and other places of business.

In fiscal 2016, we reduced carbon dioxide emissions across the Kureha Group by 41,425 tons from the previous fiscal year. This was due to using energy-saving vehicles at the distribution stage, consolidating warehouses, upgrading aging equipment to energy-saving devices at the manufacturing stage, and making efforts to conserve energy in office spaces.

In line with Japan's policy on the proliferation of renewable energy, we generated approximately 300 MWh of electricity in fiscal 2016 using a solar power system installed on our lwaki Factory premises in fiscal 2015.

#### Prevention of Air and Water Pollution

During fiscal 2016, the emission of air pollutants, such as SOx and NOx, and indexes of water pollution, such as COD and BOD\*, were kept under a level set voluntarily by Kureha and agreed upon by local authorities. This was made possible by continuously improving facilities and realizing stable operation of our manufacturing plants.

\* COD: Chemical Oxygen Demand

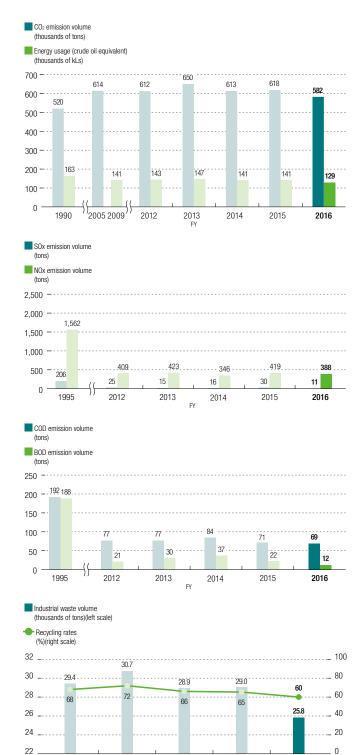
BOD: Biological Oxygen Demand

In the graph, we define the values as not the concentration but total volume tons, that is, concentration is multiplied by water emission volume.

#### **Reduction of Industrial Waste Emissions**

The lwaki Factory is working to curb the amount of waste generated through continuous efforts at stable plant operation. In fiscal 2016 it successfully kept waste volume under the cap of 25,200 tons, racking up 23,337 tons. The portion of this waste that is generated through boiler operation (cinders and collected dust) is recycled into cement or other raw materials by waste recycling companies.

In the Plastics Processing Factories, reduction of the amount of waste has been realized through improvement in product yields, advanced waste separation methods, and material recycling.



2012

2013

2014

FY

2015

2016

# Disaster Prevention and Occupational Safety and Health

As our business involves handling hazardous materials, disaster prevention and occupational safety are our greatest responsibilities. As such, we are committed to careful equipment and operational management. Moreover, in order to completely eliminate work-related accidents and earn the further trust of communities, we are continuously conducting training for emergencies, performing worksite patrols, and identifying risks.

#### **Disaster Prevention**

In addition to planned disaster prevention training conducted within each department, training for major disasters and accidents is also conducted for employees of all factories. Nearly 1,450 people took part in training at the lwaki Factory in fiscal 2016, together with a regional fire department and group companies. The training incorporated lessons learned from the Great East Japan Earthquake and simulated a great earthquake so that employees will keep disaster prevention in mind.

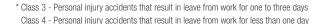
Kureha conducted safety inspections and disaster prevention training at Plastics Processing Factories in Ibaraki Prefecture and in Hyogo Prefecture. These events were conducted under the inspection by the President and the General Manager of Manufacturing Sector, respectively. In Ibaraki, 232 people took part in fire suppression simulations, while 63 participated in Hyogo.



With the goal of completely eliminating accidents requiring one or more days of leave, in fiscal 2016 we identified and took measures to address risks by conducting risk assessments, and conducted safety training and other events primarily for less-experienced employees. However, one Class 3\* personal injury accident occurred at our Plastics Processing Factory and another at a Group company. As for Class 4\*, seven accidents were reported in total, including factories in all areas. Going forward, we will focus on improving safety activities and further raising awareness.

With the exception of certain cases that are difficult to address, we have mostly achieved our initiative to eliminate personal injury risk, which we have been pursuing since fiscal 2013. For measures that mostly require human support, we will continue to monitor the situation and try to reduce the number of accidents.

Alongside these efforts, we have an Improvement Proposal Activity, in which all employees consider solutions to problems in the workplace, propose, improve and report them, such as for environmental protection, improving productivity, or reducing costs. In fiscal 2016, we received 21,462 reports for improvement. As of the end of fiscal 2016, we have received 346,684 reports for improvement since fiscal 1986.



#### ■ Labor accident frequency rate and labor accident severity rate in CY2016

Factory	Labor accident frequency rate <sup>-1</sup>	Labor accident severity rate <sup>-2</sup>
lwaki Factory	0	0
Plastics Processing Factories	0	0
Japanese Chemical Industry <sup>*3</sup>	0.88	0.03
Japanese Plastics Products Fabricators <sup>*3</sup>	1.38	0.04

<sup>\*1</sup> Labor accident frequency rate = (number of deaths and injuries in occupational accidents / total work hours)  $\times$  1,000,000



General disaster prevention training



Safety inspection and disaster prevention training

#### - Improvement Proposal Activity -





#### Example report for improvement

At the lwaki Factory, workers regularly collect drainage from a manhole as part of wastewater measurement. Although this used to put workers at risk of falling into the manhole, we were able to prevent such risk by putting an intake port on the manhole cover.

<sup>\*2</sup> Labor accident severity rate = (days of labor lost/total work hours)  $\times$  1,000

<sup>\*3</sup> Factories with 100 or more employees

# **Product Safety and Quality Assurance**

Kureha is continuously focusing on proper quality control and enhancing product quality by improving how it uses its quality management system. The company is working to build a rigorous product inspection structure in order to stay compliant with national and international laws and regulations and to provide customers with safe and reliable products.

#### **Quality Policy**

**RC REPORT** 

Kureha's quality policy and key themes for fiscal 2016 are described below.

#### **Kureha's Quality Policy**

- We will strive to improve the quality of our products and services in order to further satisfy the customer.
- We will work to provide customers with safe products that they can feel good about using.
- We will focus on safety and disaster prevention while endeavoring to achieve stable product supply.

#### **Key Themes**

- Accurately ascertain customers' needs and improve quality by more effectively utilizing our quality management system.
- Earn customers' trust by practicing proper quality management that includes contractors and minimizing quality complaints.
- 3. Identify product safety risks and prevent accidents involving product safety.
- 4. Reduce costs and ensure product quality through business reform projects, ongoing KAIZEN activities, and Total Productive Maintenance (TPM) efforts.

Every department sets specific quality targets every year based on this policy and keeps track of progress made.

#### **Quality Control Activities**

Kureha has production facilities in countries that include Japan, the US, China, and Vietnam. In order to provide customers safe and reliable products, we have implemented a quality management system group-wide, based on Kureha's system, as part of efforts to further improve quality.

These activities involve not only passing on the techniques and experience we have developed in Japan, but also respecting national character and autonomy as we promote the spread of small-group activities within Group companies aiming to improve productivity and solve quality problems. Every company holds presentation sessions about these small-group activities, and outstanding activities are awarded. The activities are also introduced in presentation sessions in Japan, and effectively utilized to promote mutual growth among employees.



Quality control seminar in Vietnam

#### **Management of Chemical Substances**

Kureha adheres to both domestic and foreign chemical substance regulations, properly collects information about the dangerous and hazardous properties of these substances, and handles these substances with care after evaluating their risk on human health and the environment. We also disseminate this information internally and externally, as needed.

At Earth Summit 2002 in Johannesburg, a 2020 target was set to minimize the adverse impacts that the production and usage of chemical substances have on people's health and the environment. Kureha meticulously registers products exported to other countries and conforms to the international standards and the regulations of that country when products are exported. In addition, we have implemented an environmental management system (ISO 14001), quality management system (ISO 9001), and occupational health and safety management system (OHSAS 18001), and are carrying out the PDCA cycle as we work to raise the level of our chemical substance management.

#### Safety Evaluations

Kureha's Safety Research Center evaluates the harmful effect imposed on people's health and the environment by the many chemical substances, materials, and products developed and used at the company. To develop safer products and evaluate the harmful effects on employees, in fiscal 2016 we collected data on toxicity and conducted safety tests for product candidates and intermediates. We are also conducting screening tests to efficiently gather toxicity information.



Preparation of pathological specimen

# Overseas Group Companies

Kureha's group companies are conducting CSR activities tailored to the characteristics of the regions of each of their business sites in order to foster trusting relations with local communities.

### KREHALON B.V.

### We incorporated ISO 26000 into our Code of Conduct and familiarized all employees with the content.



Naoki Fukuzawa

Head Office Location:

Londenstraat 10, 7418 EE Deventer, The Netherlands Website:

http://www.krehalon.com/

Business Outline:

Manufacturing food packaging products

We incorporated the principles of ISO 26000 into our Code of Conduct as a useful means of familiarizing employees with our global social responsibility and communicating effective behav-

ioral guidelines and best practices. In March 2017, we distributed pocket-sized handbooks to all company employees that summarize our Code of Conduct, then conducted repeated workshops to instill a firm understanding of its content.

We put our declaration to incorporate the ISO 26000 standards on our website and the website of the Netherlands Standardization Institute as a means to communicate our CSR activities to the world.



Code of Conduct Handbook

### Kureha (Shanghai) Carbon Fiber Materials Co., Ltd.

### We will continue to pursue ever better clean production technologies.



Yo Otani Managing Director

Head Office Location:

No.1585 Xing Rong Road, Jiading, Shanghai, China **Website:** 

http://www.kureha.sh/

Business Outline:

Production & sales of thermal insulation made from carbon fibers

In order to more effectively carry out our energy saving, waste reduction, and other activities in accordance with the Law of the People's Republic of China on Promotion of Cleaner Production, we have begun reviewing the content of these activities with guidance from consultants. We also continue to conduct initiatives based on ISO 9001 and ISO 14001, while at the same time

performing a range of occupational safety activities including safety training seminars. The fiscal 2016 seminar was taught by an instructor from a Japanese insurance company.

With every passing year, China, too, is coming to focus more and more on the environment, safety, and saving energy. As such, the entire company will be working together to actively carry out CSR activities.



Safety training seminar

### Kureha Vietnam Co., Ltd.

# All hands are on deck in a variety of initiatives aimed at building a "prosperous Kureha Vietnam" where work brings satisfaction.



Yoshihisa Machida

Head Office Location:

Plot 227/3, Road 13, Amata I.p., Long Binh Ward, Bien Hoa City, Dong Nai Province Vietnam

Business Outline:

Production & sales of food packaging films

Our company acts in line with the companywide goal and standard of behavior that is represented by Towards a Prosperous Kureha Vietnam.

In fiscal 2016, we collaborated with the Dong Nai Province fire department to carry out training in related laws and regulations. This was among the evacuation and disaster prevention training we conducted for emergency situations as part of efforts to raise disaster prevention awareness among our employees.

Our employees are also carrying out 4ME\* activities and making efforts to identify and remedy problems in the work environment on their own while at the same time pointing out problems to others.

As an environmental preservation initiative, we took part in a tree planting event organized by an industrial park. We also presented middle school and high school students in Dong Nai Province with scholarships as a philanthropic act for the community.



AMATA industrial park tree planting activity













For inquiries about the Kureha CSR Report:

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