



**Shin-Etsu Chemical Co., Ltd.**

# **CSR Report 2017**

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This report excerpted from the CSR Site as of June 2017.

Shin-Etsu Chemical CSR Report 2017

# Message from Management



Chihiro Kanagawa  
Chairman



Yasuhiko Saito  
President

## **Shin-Etsu Group's Corporate Mission Statement**

“Strictly comply with all laws and regulations, conduct fair business practices and contribute to people’s daily lives as well as to the advance of industry and society by creating value through providing key materials and technologies.”

## **Contribution to the Future of the Earth**

The Shin-Etsu Group’s product line up contributes to the United Nation’s “SDGs”<sup>\*</sup>.

The Group’s core products such as PVC, semiconductor silicon, silicones, cellulose derivatives and rare earth magnets contribute to the future of the earth by addressing issues on climate change, preservation of ecosystems and biodiversity. We will accelerate the development of product application as well as the development of new products in order to further contribute to the SDGs.

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### **\* Sustainable Development Goals (SDGs)**

The United Nations Sustainable Development Goals (SDGs) is a set of 17 global goals adopted in “Agenda 2030 for Sustainable Development” with the aim of transforming the world by promoting global prosperity and protecting the planet. This resolution was adopted at a historic UN Summit in 2015 by all of the United Nations’ 193 member countries.

## **Key CSR Issues**

The Shin-Etsu Group has defined eight Key CSR Issues. The Group has been focusing on addressing many of these issues over a long period of time.

- Employees and contractor health and safety
- Energy-saving, resource-saving and the reduction of the environmental impact
- Product quality improvements and product safety control
- Promoting CSR procurement and the diversification of supply sources
- Respect for human rights, the development of human resources and the promotion of diversity
- Contribution to industry and social initiatives
- Respect for and protection of intellectual property
- Accurate and timely information disclosure and communication with stakeholders

By sharing these CSR Key Issues through continuous discussions with the Shin-Etsu Group companies, we will strive to further enhance the effectiveness of our CSR activities.

## **Social Contribution Activities in Local Communities**

The Shin-Etsu Group’s employees around the world participate in local social contribution activities. To give an example, Shintech, Inc., one of our major Group companies located in the U.S., is making a great contribution to the U.S. economy through its business. Not only sponsoring selected local programs, it also supports its employees to voluntarily participate in local social contribution activities. That helps to deepen the relationship of trust with the people of local communities.

## **International Principles and Global Charters**

The Shin-Etsu Group signed and put into practice the Responsible Care® Global Charter of the International Council of Chemical Associations (ICCA) in 2006. Furthermore, in 2014, we also signed the revised Responsible Care® Global Charter issued by the ICCA. This charter codifies the global chemical industry's total commitment to "the safe management of chemicals throughout their life cycle, while promoting their role in improving quality of life and contributing to sustainable development." In addition, in 2010, the Shin-Etsu Group became a participant in the United Nations Global Compact (UNGC) and has been voluntarily supporting and practicing in our business operations and strategies the UNGC's Ten Principles with regard to the four fields of human rights, labor standards, the environment and the prevention of corruption. These principles are all in accordance with the Group's Corporate Mission and our Basic CSR Policy.

## **Corporate Social Responsibilities**

Going forward, the Group will strive in all of its business activities for the creation and fulfillment of new values that will respond to the requests from society and to steadily carry out our corporate social responsibilities. We sincerely ask for your continued understanding and support in the future as well.

June 2017

Chihiro Kanagawa, Chairman

Yasuhiko Saitoh, President

## Editorial Policy

The Shin-Etsu Group started issuing the “Environmental Report” in 2000. In 2004, the report was renamed the “Environmental and Social Report” after expanding its contents to include corporate social responsibility in general. Furthermore, in 2016, the report was retitled the “CSR Report” and has been issued without interruption.

The Report also serves as a report on our Responsible Care programs<sup>1</sup>.

### **Referenced Guidelines**

GRI “Sustainability Reporting Guidelines, 4th edition” Ministry of the Environment “Environmental Report Guidelines 2012 Edition”  
Ministry of the Environment “Environmental Accounting Guidelines 2005 Edition”

### **Period Covered by the Report**

(indicated where otherwise)

Japan: April 1, 2016 to March 31, 2017

Overseas: January 1, 2016 to December 31, 2016

### **Organizations Covered by the Report**

The report covers our 148 Group companies including Shin-Etsu Chemical Co., Ltd, herein after called the Company. The range of entities from which data were collected is in principles as stated below. Where otherwise, this is indicated in a separate note.

#### **(1) Environmental Activity Report**

The report includes data from the 124 companies of the Group.

66 manufacturing bases in Japan

122 non-manufacturing bases in Japan

47 overseas manufacturing bases

61 overseas non-manufacturing bases

#### **(2) Environmental Accounting**

Shin-Etsu Chemical Co., Ltd.

#### **(3) Other**

The Group, except for the Shin-Etsu Polymer Group<sup>2</sup>

#### **(4) A collection of ESG data**

Consolidated companies including the Shin-Etsu Polymer Group

Previous issue: June 2016 as Environmental and Social Report 2016

Issued June 2017

Next issue: scheduled for June 2018

Keidanren (Japan Business Federation)  
Japan Chemical Industry Association  
Vinyl Environmental Council  
Plastic Waste Management Institute  
The International Friendship Exchange Council  
The Japan Committee for UNICEF  
Global Compact Japan Network  
Millennium Promise Japan, etc.

1 Responsible Care programs

A campaign encouraging enterprises that handle chemical substances to voluntarily ensure protection of the environment, safety and health in all processes, from the development of chemical substances through manufacture, distribution and utilization to final consumption, disposal or recycling, to publish the results of their activity, and to engage in dialogue and communication with society.

2 For a report on the Shin-Etsu Polymer Group, see "Shin-Etsu Polymer Sustainability Report 2017" (to be published at the end of September 2017).



# Shin-Etsu Group's products which contribute to the solution of the UN "Sustainable Development Goals(SDGs)"

The Shin-Etsu Group does its best to solve various social issues, and it implements this through our Corporate Mission Statement to "contribute to people's daily lives as well as to the advance of industry and society by creating value through providing key materials and technologies."

Products borne from these efforts also contribute to solving the UN "Sustainable Development Goals(SDGs)".

## Classification of social issues

- Addressing climate change and its impacts
- Promotion of the development and innovation of infrastructure
- Conservation of ecosystems and biodiversity loss prevention
- Securing healthy living and welfare promotion

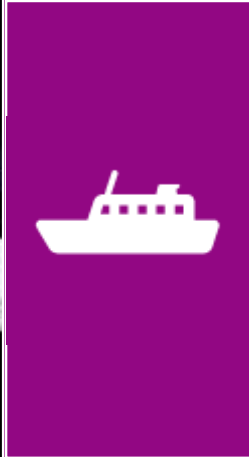
| Products  | Solution Example   | Targets for relevant UN "Sustainable Development Goals"  |
|---|--|--|
| <p>Polyvinyl chloride (PVC)</p>    |  <p>(Photo) LIXIL Corporation</p> <p>■Energy savings<br/>In comparison to aluminum window profiles, PVC based resin window profiles can reduce the amount of heat loss from windows by 71%.<br/>★Learn more<br/><a href="#">Feature Article 2: Shin-Etsu Group Products and Technologies that Contribute to Environmental Conservation.</a></p>  <p>■Extending the life of infrastructure<br/>PVC water and sewer pipes do not need replacing for 50 years or more.</p> | <br>  |
| <p>Sodium hypochlorite / caustic soda / hydrochloric acid</p>  <p>Tank truck for transporting hydrochloric acid</p> |  <p>■Securing healthy living and welfare promotion<br/>Provide safe and delicious water by disinfecting water supplies and drinking water with sodium hypochlorite.</p>  <p>■Conservation of ecosystems and biodiversity loss prevention<br/>Harmful substances generated from production activities become harmless with caustic soda and hydrochloric acid, and they protect the atmosphere and water.</p>   | <br> |



**■Energy savings**  
 An annual reduction of 54 million tons of CO<sub>2</sub> greenhouse gas emissions is possible through the use of silicones in automobiles, construction and solar panels.  
[★Learn more](#)  
[Feature Article 2: Shin-Etsu Group Products and Technologies that Contribute to Environmental Conservation.](#)



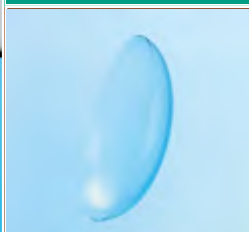
**■Renewable energy**  
 By utilizing silicones for sealing solar batteries, the batteries can be used for 30 years or more.



**■Energy savings**  
 Improve the fuel efficiency of ships to prevent the attachment of marine organisms with paint made from silicone oil as a material for ship bottom paint.



**■Prevention of marine pollution**  
 Highly safe silicones were applied to the bottom paint of ships instead of organic tin compounds used in bottom paint, and they prevent the adhesion of marine organisms.



**■Responding to an aging society**  
 Use in cushion material for nursing care robots.


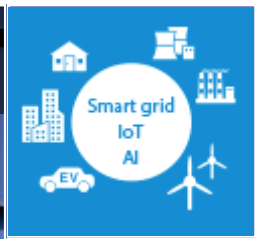



**■Maximizing the performance of medical equipment**  
 Provide oxygen permeability to contact lenses.




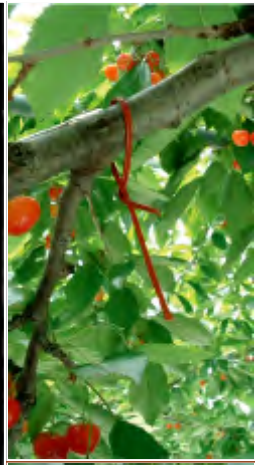




**■Environmental conservation**  
 Agricultural chemicals using silicone for spreading agent spreads easily, and the amount of agricultural chemical spraying is reduced.





|   |  |  |  |
|---|--|--|--|
| <p>Semiconductor silicon<br/>Compound semiconductors</p>  |                          | <p>■Basic materials to support a highly information-oriented society<br/>Basic materials which support a highly information-oriented society such as a Smart grid, IoT, etc.</p> |  |
|    | <p>■Responding to an aging society<br/>Used in the electronic device control of nursing care robots.</p> |   |  |

|  |  |  |   |
|--|--|--|---|
| <p>Cellulose derivatives</p>  |  <p>Concrete with cellulose derivatives added (left)</p>  | <p>■Prevention of marine pollution<br/>Addition of cellulose derivatives to minimize the separation of concrete in water, it is possible to pour concrete without contaminating the water.</p> |  |
|                              | <p>■Maximizing the performance of pharmaceutical products<br/>Adjusts the time, dosage and position of tablets dissolving in the body, and removes the bitterness and odor of tablets.</p> |    |   |

|  |   |   |   |
|--|---|---|---|
| <p>Synthetic pheromones</p>  |                                      | <p>■Environmental conservation<br/>Reduces soil contamination through the reduction of the amount of applied pesticide.</p> <p>■Preventing disruption of ecosystems<br/>Controls only specific pests, and avoids affecting other organisms.</p> |  |
|                             | <p>■Water pollution reduction<br/>Reduces water pollution through the reduction of the amount of applied pesticide.</p> |     |   |

|   |   |  |   |
|---|---|--|---|
| <p>Rare earth magnets</p>                           |     | <p>■Energy savings<br/>Improves the efficiency of motors and generators, and contributes to improving the performance of next-generation vehicles.<br/>★Learn more<br/><a href="#">Feature Article 2: Shin-Etsu Group Products and Technologies that Contribute to Environmental Conservation.</a></p> |    |
|   |    | <p>■Responding to an aging society<br/>Use in joint motors for nursing care robots.</p>  |    |
|   |    | <p>■Renewable energy<br/>Improved power efficiency through using a wind power generator.</p>   |    |
| <p>LED/Semiconductor encapsulating materials</p>   |   | <p>■Energy savings<br/>Contribute to longer LED life.</p>  |   |
| <p>Synthetic quartz</p>                           |  | <p>■Basic materials to support a highly information-oriented society<br/>Basic materials which support a highly information-oriented society such as a Smart grid, IoT, etc.</p>   |  |
| <p>Photomask blanks</p>                           |  | <p>■Basic materials to support a highly information-oriented society<br/>Basic materials which support a highly information-oriented society such as a Smart grid, IoT, etc.</p>   |  |
| <p>Oxide single crystals (Lithium Tantalate)</p>  |  | <p>■Basic materials to support a highly information-oriented society<br/>Basic materials which support a highly information-oriented society such as a Smart grid, IoT, etc.</p>   |  |

- 1 Smart grid  
Next-generation power grid. A transmission network that can be optimized and that can control the power flow from both the supply side and the demand side.
- 2 IoT  
Abbreviation for 'Internet of Things'. This is technology that connects everything on the Internet.
- 3 AI  
An abbreviation for "Artificial Intelligence".

## Shin-Etsu Group Corporate Mission Statement

The Group strictly complies with all laws and regulations, conducts fair business practices and contributes to people's daily lives as well as to the advance of industry and society by creating value through providing key materials and technologies.

## Basic CSR Policy

### The Shin-Etsu Group:

1. Will do our best to increase the Group's corporate value through sustained growth and make multifaceted contributions to society.
2. Will carry out all of our company activities by making safety always our utmost priority.
3. Will constantly pursue energy-saving, resources-saving and the reduction of the environmental impact, and seek to help create a sustainable future world in which we all live in harmony with the Earth.
4. Will endeavor to contribute to the prevention of global warming and the conservation of biodiversity by means of our cutting-edge technologies and products.
5. Will strive to respect human dignity, assure equality in employment opportunities and support the self-fulfillment of our employees.
6. Will appropriately disclose information in a timely manner.
7. Will carry out trustworthy corporate activities that are based on the integrity of the Group's ethical values.

## CSR Promotion Structure

### CSR Promotion Initiatives

We believe that it is the social responsibility of the Group to contribute to our stakeholders, such as shareholders, investors, customers, business partners, local communities and employees.

To achieve this, we formulated the Basic CSR Policy and internal regulations, and are carrying out CSR activities. In order to promote CSR activities in an effective and appropriate manner at a company wide level in all aspects of corporate activity, we have set up a CSR Promotion Committee comprising managers from the relevant divisions and departments, and have appointed a director in charge of CSR and the President serves as Committee Chairperson.

## CSR Organizational Chart



## Outline of the Corporate Mission Statement, Basic CSR Policy, and the Shin-Etsu Group's activities



## Diagram of the Shin-Etsu Group's various relationships





## Participant in UN Global Compact

In November 2010, the Shin-Etsu Group has joined to the UN Global Compact. As life in society has become more complex and more diverse in recent years, the social responsibilities of enterprises have grown.

Against this background, the Shin-Etsu Group remains firmly committed to its corporate mission statement, which calls for it to strictly comply with all laws and regulation, conduct fair business practices and contribute to people's daily lives as well as to the advance of industry and society by providing key materials and technologies. At the same time we ensure a flexible response to changes in the social and economic environment.

The Group has also been participating in the Global Compact Network Japan since November 2010. The Group takes part in subcommittees, such as the Supply Chain and SRI/ESG to utilize information on the latest development of CSR, gained from participation, for promoting the Group's CSR.

### Global Compact Ten Principles

#### Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

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Principle 2: make sure that they are not complicit in human rights abuses.

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#### Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

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Principle 4: the elimination of all forms of forced and compulsory labour;

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Principle 5: the effective abolition of child labour; and Principle 6: the elimination of discrimination in respect of employment and occupation.

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#### Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

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Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

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#### Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

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## Evaluation from Society

The Company is incorporated in the following socially responsible investment (SRI) index.



2017 Constituent  
MSCI ESG  
Leaders Indexes



2017 Constituent  
MSCI Japan ESG  
Select Leaders Index



as of January 4, 2017



### Utilization of Supply Chain CSR Management Systems

The Group utilizes supply chain CSR management systems, such as EICC-ON<sup>1</sup> and Sedex<sup>2</sup>, to disclose CSR information.

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1 EICC-ON

An online database organized by non-profit organization CSR Alliance® (Electronic Industry Citizenship Coalition [EICC®]) for managing labor, health and safety, environment and ethics in the supply chain. Enterprises in the global electronic industry take part in electronic industry CSR Alliance®.

2 Sedex

An online database organized by and named after non-profit organization Sedex, for storing and accessing data regarding ethical and responsible business practices. Enterprises in the global industries, including food, automobile, cosmetics and amenity, have joined Sedex.

## Corporate Governance

The Company considers Corporate Governance to be one of the important management tasks, and it is focusing on the following points.

- Development of an efficient organizational structure and institutions
- Ensuring management transparency
- Strengthening internal controls
- Timely and accurate disclosure of information

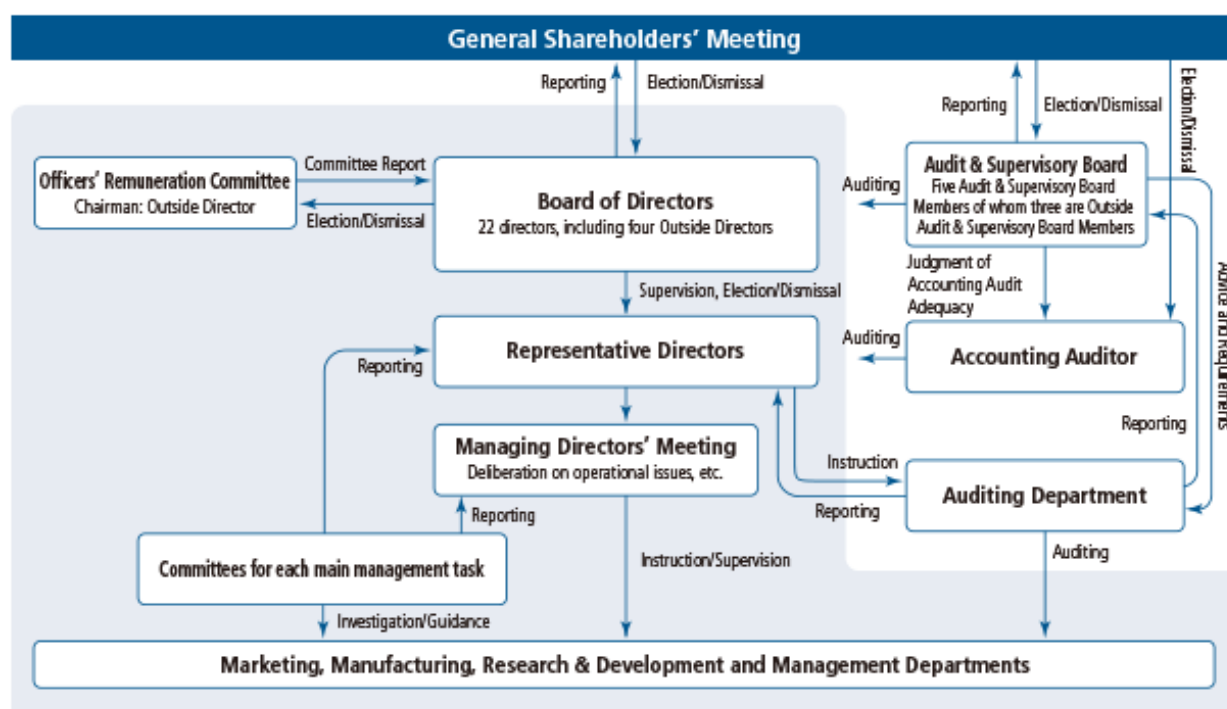
### Board of Directors, Managing Directors' Meeting and Audit & Supervisory Board

The Board of Directors consists of 22 members, of whom four are Outside Directors with a wealth of management experience and exceptional insight.

Two organizations to discuss and decide on the execution of operations: the Board of Directors and the Managing Directors' Meeting, which are each held on a monthly basis as a general rule. The Board of Directors sets out the Company principle and deliberates and makes decisions regarding key aspects of Company operations in accordance with the Companies Act, the Company articles of incorporation, etc. Meanwhile, the Managing Directors' Meeting makes deliberations and decisions on a variety of other operational issues.

The Company has adopted an Audit & Supervisory Board Member system. The Audit & Supervisory Board is composed of five members, including three Outside Audit & Supervisory Board Members. As well as attending the Board of Directors meetings, Managing Directors' Meetings, and other important internal meetings, the Audit & Supervisory Board Members review documents, visit factories in Japan and overseas, and carry out other tasks in order to audit the execution of operations by the directors. Furthermore the Audit & Supervisory Board Members also hold monthly meetings with the Auditing Department where they receive progress reports on activities, internal auditing results, the situation of the Auditing Department business, and other matters. In addition, they also provide advice and make requests on topics including these activities and the selection of key auditing topics.

### Corporate Governance System at Shin-Etsu Chemical



As of June 29, 2017

## **Outside Directors**

For the purpose of the fulfilled advisory and supervisory functions of management from an independent position, the Company welcomes four Outside Directors. Advice has been obtained from Outside Directors about the enhancement of growth strategy and governance. We believe that these points are extremely important in order to raise corporate value.

### **Outside Director List**

| Name               | Status of significant other positions held  |
|--------------------|---|
| Frank Peter Popoff | Former CEO, The Dow Chemical Company (US)   |
| Tsuyoshi Miyazaki  | Former Representative Director and President,<br>Former Representative Director and Chairman and current Advisor,<br>Mitsubishi Logistics Corporation |
| Toshihiko Fukui    | Former Governor of the Bank of Japan<br>President, The Canon Institute for Global Studies<br>Outside Director, Kikkoman Corporation                   |
| Hiroshi Komiyama   | Former President, The University of Tokyo<br>Chairman, Mitsubishi Research Institute, Inc.  |

As of June 29, 2017



From the left, Toshihiko Fukui, Hiroshi Komiyama, Frank Peter Popoff, Tsuyoshi Miyazaki

## **Outside Audit & Supervisory Board Members**

For the purpose of the fulfilled advisory and supervisory functions on management through an independent position, the Company welcomes three Outside Audit & Supervisory Board Members. Outside Audit & Supervisory Board Members are auditing the Company's management as experts in their respective fields or from a broad point of view based on corporate management experience. Outside Audit & Supervisory Board Auditing is contributing to ensure the Company's compliance system.



## Outside Audit & Supervisory Board Member List

| Name             | Status of significant other positions held   |
|------------------|--|
| Taku Fukui       | Lawyer Managing Partner, Kashiwagi Sogo Law Offices<br>Professor, Keio University Law School<br>Outside Director, YAMAHA CORPORATION |
| Yoshihito Kosaka | Certified Public Accountant, Certified Public Tax Accountant<br>Counselor, Kisaragi Audit Corporation                                |
| Kiyoshi Nagano   | Former Representative Director, Chairman and President,<br>former JASDAQ Securities Exchange, Inc.<br>Outside Director, LEC INC.     |

As of June 29, 2017



From the left, Yoshihito Kosaka, Kiyoshi Nagano, Taku Fukui

### **Directors' Remuneration**

In order to ensure transparency and validity in the decision-making process of the Directors' Remuneration, the Officers' Remuneration Committee has been in place since 2002. The committee consists of five directors, with Outside Director Frank Peter Popoff as chairman. The committee comprehensively reviews the evaluation results of the contribution to business performance and management of each director in each fiscal year, and reports this to the Board of Directors.

### **Internal Control System and Operational Audit**

The Company has formulated a Basic Policy on Internal Controls to help put in place "structures to ensure that the execution of duties by the directors is fully compliant with relevant legislation and the articles of incorporation, and structures to ensure the propriety of business operations within the corporate group consisting of its subsidiaries as well as this corporation and other corporate business", as stipulated by the Companies Act and an Ordinance of the Ministry of Justice.

Internal controls are an important management responsibility at the Company. Accordingly, the internal control system is structured and implemented in accordance with the above policy. It is subjected to constant review to make the system more appropriate and efficient.

Internal operation audits and assessment of internal controls over financial reporting are handled by the Auditing Department. The results of these audits and assessments are reported to board members including Outside Directors and Outside Audit & Supervisory Board Members to strengthen coordination between Auditing Department and Outside Directors and Audit & Supervisory Board Members.

## Operation of Group Companies

The Company aims for development of the whole Group by supporting and respecting the autonomy of the Group companies. Group companies are managed on the basis of the Shin-Etsu Chemical Group Company Operational Regulations. The 91 companies that are consolidated subsidiaries are conducting prior consultation and reporting on the following projects.

### (1) Prior Consultation Item Example

- Capital increase or decrease, mergers, dissolutions, amendments to the Articles of Incorporation
- New business and capital investment plan
- Transfer or acquisition of business
- Appointment and dismissal or transfer of officers and seconded executives

### (2) Reporting Item Example

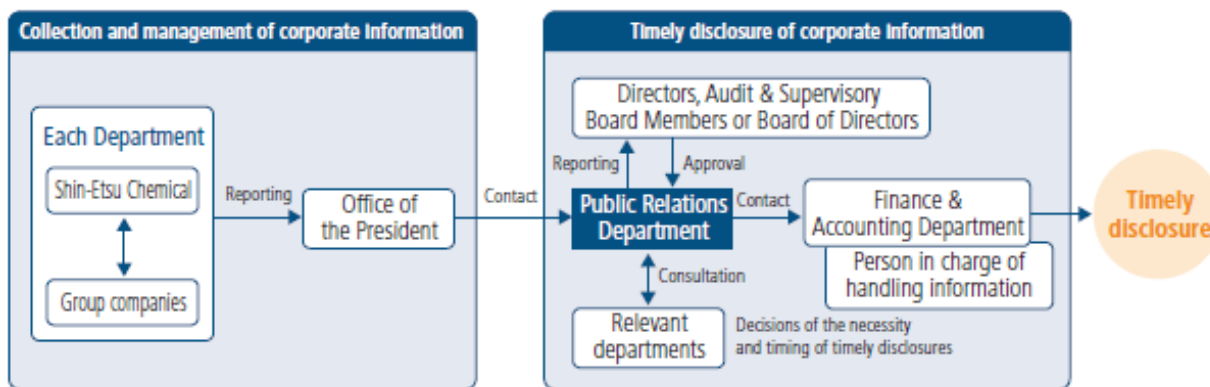
- Operations review
- Financial results
- Risk information recognized by Group companies
- Important information such as deficiencies in internal control

Furthermore, by holding meetings which are attended by the presidents of our main Group companies twice each year, we actively promote the sharing and exchange of information among Group companies.

## Internal System for Timely Disclosure of Corporate Information

In accordance with the regulations regarding information disclosure set by the stock exchange and the Financial Instruments and Exchange Act, the Company has formulated internal regulations regarding collection, management, and timely disclosure of corporate information. These regulations include the Regulations on Timely Disclosure of Corporate Information and the Rules on Regulation of Insider Trading. These rules are communicated to all of the departments in the Company and Group companies to promote smooth and timely disclosure.

### State of the internal system for timely disclosure



■ Corporate Governance Report

■ ESG Data

## Risk Management

### **Risk Management Regulations**

The Company has established the Risk management Regulations. Comprehensive risk considered in carrying out business activities in the Company and the Group are specifically defined in a long-term perspective in the regulations. In addition, risk handling methods and a risk management system has been established.

#### **Risks Defined in Risk Management Regulations**

##### **(1)Risk factors related to business activities**

1. Business risks
2. Research and development risks
3. Production and quality management risks
4. Sales risks
5. Purchasing risks
6. Finance and accounting risks
7. Personnel and labor risks
8. Environment and safety risks
9. Information management risks
10. Intellectual property, contract, and litigation risks
11. Fraud risks
12. Country risks
13. Legal risks
14. Other

##### **(2)Risk factors not related to business activities**

1. Risks caused by economic factors
2. Risks caused by social factors
3. Risks caused by governmental factors
4. Risks caused by scientific and/or technical factors
5. Risks caused by natural environmental factors and/or disasters
6. Other

### **Risk Management Committee**

The Risk Management Committee has been established. The Committee constructs risk management structures, establishes regulations, and works to identify and prevent potential washout of risks arising in connection with the operations of the Company. The Committee also promotes broad-based activities such as the development of business continuity planning, education, and information provision. The Committee reports directly to the Board of Directors, the Audit & Supervisory Board, and the Managing Directors' Meeting on major issues in risk management.

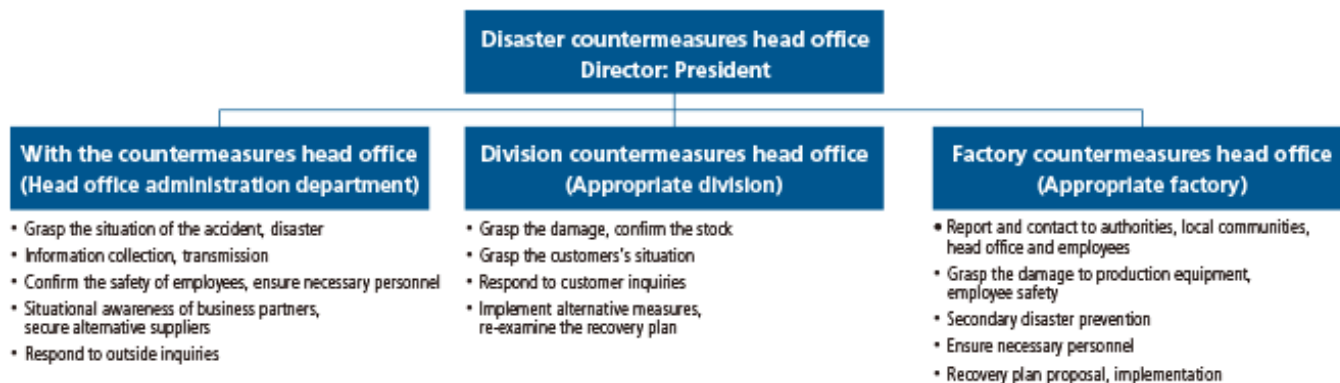
## Handling in the Business Continuity Plan and during an Emergency

The Group offers a number of products used in special applications in state-of-the-art industries and has a high market share in products not only in Japan but around the world. For that reason, if these products cannot be supplied due to an accident or serious disaster such as a massive earthquake or fire, it will have an effect on society.

In the Company, each division and each factory is preparing for a disaster and accident and formulates a business continuity plan on the basis of the Companywide Business Continuity Management Regulations.

In addition, if a disaster or accident occurs, we will work using the structure shown below. Each of the countermeasures head office and organizations carry out emergency response and recovery support on the basis of pre-defined business standards.

### System and major response operation in the occurrence of a disaster or accident





### 3 Interviews with Outside Directors

Individual interviews were conducted with all Outside Directors with prepared proposal. The followings are the suggestions and opinions provided in the interviews.

1. Compliance with Laws and Regulations are related to all the other issues.
2. All of the Key CSR Issues listed are equally important for the Group, and it is difficult to prioritize them.
3. The Group should clarify what we are aiming at as a goal as the Group specify Key CSR Issues.

### 4 Re-examination in the Committee and approved by the management

Based on the suggestions and opinions from the Outside Directors, the Committee has re-examined key issues. The Managing Directors' Meeting, which is the decision-making body with all the directors and audit & supervisory board members also examined and has decided the items in the figure below to be Key CSR Issues of the Group.

The Group will work equally on all of these Key CSR Issues without an order.

Also, the Group has set a goal to contribute to the future of the Earth by practicing the Corporate Mission Statement while working on these issues. The Group now has a goal to "Contribute to the future of the Earth" while working on Key CSR Issues.



## The cornerstone of all activities: legal compliance, fair corporate activities

### **Ensuring Full Compliance Awareness**

The Group emphasizes the importance of Compliance with Laws and Regulations in the Corporate Mission Statement and periodical management objectives. We always work with strictly compliance with laws and regulations.

In the event of promulgation of or amendments to legislation pertaining to corporate activities, the Legal Department serves in a central role by issuing internal bulletins and disseminating knowledge of these changes.

All of the officers and employees submit a Compliance Pledge to the Company. For the eventuality of inappropriate action occurring, disciplinary measures are available.

In addition, officers and employees can consult with and report to the Compliance Consultation Office related to violations of the rules and regulations as well as laws and ethics. The office then carries out a detailed investigation in response to the information received. With necessary investigations, the office will take necessary corrective actions. Confidentiality will be maintained for consulters and whistleblowers. There is no unfavorable treatment as a reason for consulting and reporting.

### **Initiatives Aimed at Preventing Corruption**

The Company has created the Anti-Bribery Regulations and prohibits actions that involve unfair transfer of profit from or to parties such as domestic or foreign government officials, customers and business partners. Moreover, by having a Compliance Pledge, we assuredly prevent the provision of unfair benefits or unfair demands in respect to our customers, domestic or foreign government officials and business partners. Also, the status of compliance with ethical standards is one item included in personal evaluations. Furthermore, we provide internal training, such as online seminars, and lectures by outside instructors for preventing bribery and carry out regular internal audits for corruption, embezzlement and bribery.

### **Export Control**

From the viewpoint of maintaining world peace and security, the Company has created the “Control Program on Security Control” to comply with the Foreign Exchange and Foreign Trade Act and other export related legislation. The followings are our initiatives based on this program.

- Classification, customer review and transaction review when exporting products
- Internal audit
- Training officers and employees and instruction to Group companies

### **Cutting Ties with Anti-social Forces**

The Group declares in its the Basic Policy on Internal Controls that the Group shall adopt a consistently resolute attitude towards anti-social forces and shall take measures necessary to cut itself off from any and all associations with them. In accordance with this policy, we will endeavor to develop internal systems under the leadership of the department in charge of managing these issues. At the same time, we are promoting the signing of memorandums and letters of confirmation regarding the exclusion of anti-social forces with customers and business partners.

In addition, we are working closely with external specialized agencies.

# Shin-Etsu Group Key CSR Issues

## Key Issues 1: Employees and contractor health and safety

The Group is working on having a comfortable and safe workplace where people can “prevent the occurrence of serious accidents” and where there is a “reduction of lost time incidents to zero”.

### **Occupational Safety**

Each of Group’s plant clarifies every single possibility that could cause any kind of injury or illness and works hard to eliminate those risks.

In addition, they are KY<sup>1</sup> hazard prediction activities e.g. pointing and calling prior to work and reconfirming safety.

Furthermore, the workers are taking measures against unsafe areas by regularly collecting “close calls and other incidents of concern” from case examples of workers who have experienced close-call incidents and matters of concern. At the same time, we share our risk information and prevent similar accidents by disclosing this risk information internally and externally.

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1 KY (Hazard activities)

Risk prediction activities workers will confirm and reliably carry out activities and safe working methods in order to prevent the occurrence of possible disease or injuries.

### **Process Safety and Prevention Plan**

Prevention of serious accidents is a top priority in the Group, and we continue to work on a variety of safety and disaster prevention activities.

Since fiscal 2013 we have worked to enhance safety management by performing risk evaluations and by implementing effective safety measures, particularly of envisaged abnormal plant conditions.

The Company has been participating in the Japan Society for Safety Engineering’s Japan Safety Competency Center since its inauguration in fiscal 2012. Each plant uses the center’s “Safety Evaluation System” to further improve the situation and works even harder on the Process Safety and Prevention Plan.



## **Education and drills**

To keep plant operation constantly safe, it is important for each employee to improve his /her skills and knowledge and be aware of danger.

So besides providing safety education such as on material handling and possible dangers involving processes as well as simulating possible dangers, we plan and conduct emergency drills for abnormal situations such as major earthquakes or fires. In addition, we work on handing down operation at skills for manufacturing equipment.

Furthermore, we are working to foster an awareness of safety by creating a workplace atmosphere in which operation processes and rules are observed.



Comprehensive emergency drill  
(Shin-Etsu Chemical Naoetsu Plant)



Emergency drill  
(Shin-Etsu Handotai Shirakawa Plant)

## **Environmental Control and Safety Audits**

In order to confirm that activities such as environmental conservation, occupational safety and health, process safety and prevention plan are carried out as planned, the Group conducts an audit.

In referring to cases from other companies in fiscal 2013, we communicated revisions to “Nonroutine Work Safety Measures” within the company. Their implementation status in fiscal 2016 was conducted as a special audit theme.

## **Health Considerations**

We are working to prevent possible diseases through encouraging employees to take health checks, offering health counseling on life style diseases as well as promoting measures on mental health and activities for health promotion and fitness. In addition, we are conducting prevention of and raising awareness toward infectious diseases including new strains of influenza.

Our head office and branch offices have a Health Committee, and each plant has a Safety and Health Committee. The committee works to improve the workplace environment and to promote worker’s health with advice and information from industrial physicians. We also have special programs such as physical fitness checks and seminars which help workers to maintain and improve their physical conditions.

Furthermore, we have set up Family health consultation with our health insurance union and an affiliated insurance company. It is available 24 hours a day. This consultation can also be used by the family members of employees.

## **Targets and Results**

Every fiscal year, the Group creates environmental and safety management plans based on Responsible Care code. The entire Group works on key issues such as the prevention of major disasters including explosions and fires and industrial accidents according to the management plan prepared.

## Targets and Results

| Item                               | Priority Issues (Target)   | Implementation Status for Fiscal 2016  | Evaluation | Planned Implementation Items for Fiscal 2017   |
|------------------------------------|--|--|------------|--|
| Process Safety and Prevention Plan | 1) Zero serious accident   | <ul style="list-style-type: none"> <li>Achieved target of zero serious accident</li> </ul>   | ◎          | <ul style="list-style-type: none"> <li>Zero serious accident</li> </ul>  |
|                                    | 2) Facility and process safety improvement                                       | <ul style="list-style-type: none"> <li>Secure follow-up of issues pointed out by the Safety Review Committee members and matters to be investigated</li> <li>Application of Security Evaluation System by the Japan Safety Competency Center</li> <li>Inspection of hazardous material storage facility standards and inspection on the management situation</li> </ul>  | ○          | <ul style="list-style-type: none"> <li>Improve technology for hazard assessment and implement countermeasures by process risk assessment</li> <li>Safety measures for non-routine work and operation as well as continuing to consider accident trouble cases</li> <li>Application of Security Evaluation System by the Japan Safety Competency Center</li> </ul>  |
|                                    | 3) Improvement of facilities and maintenance management                          | <ul style="list-style-type: none"> <li>Investigated causes of facility troubles and formulated measures to prevent recurrence</li> <li>Implemented planned facilities maintenance</li> </ul>   | ○          | <ul style="list-style-type: none"> <li>Thorough investigation of equipment trouble causes, recurrence prevention and design technology improvement</li> <li>Implementation and improvement of equipment maintenance (conservation management for aging piping and equipment through activities like planned repairs)</li> </ul>  |
|                                    | 4) Reliable emergency response   | <ul style="list-style-type: none"> <li>Examination and maintenance of measures to prevent secondary disasters through mass leakage of hazardous materials or high pressure gas during a large earthquake</li> <li>Clarification of procedures, command order system and judgment criteria for emergency measures</li> <li>Enhance business continuity planning training</li> </ul>   | ○          | <ul style="list-style-type: none"> <li>Handling for worst-case scenario measures for serious disasters and earthquakes</li> <li>Maintenance of emergency-response criteria / manuals</li> <li>Review and implement business continuity planning training</li> </ul>  |
|                                    | 5) Plant security enhancement  |  |            | <ul style="list-style-type: none"> <li>Strengthen prevention measures against external intruders</li> </ul>  |
| Occupational Safety                | 1) Achieve zero accidents requiring an absence of a day or more                  | <ul style="list-style-type: none"> <li>The Shin-Etsu Group: four people</li> <li>Shin-Etsu Chemical: two people</li> </ul>   | △          | <ul style="list-style-type: none"> <li>Achieve zero accidents requiring an absence of a day or more</li> </ul>   |
|                                    | 2) Rate of accidents not accompanied by an absence of a day or more: 0.5 or less | <ul style="list-style-type: none"> <li>The Shin-Etsu Group achieved its goal with a rate of 0.69</li> <li>Shin-Etsu Chemical achieved its goal with a rate of 0.87</li> </ul>  | ×          | <ul style="list-style-type: none"> <li>Rate of accidents not accompanied by an absence of a day or more: 0.5 or less</li> </ul>  |
|                                    | 3) Human error reduction   |  |            | <ul style="list-style-type: none"> <li>Prevent accidents caused by human error</li> </ul>  |
|                                    | 4) Improve work safety   | <ul style="list-style-type: none"> <li>Promoting "zero accident" activities (practiced Hazard prediction activities, pointing and calling, and 5S activities<sup>1</sup>)</li> <li>Implemented improvement and promotion of close-call incident proposals and improvement proposals</li> <li>Implemented assured horizontal expansion of accident examples of the Group companies</li> </ul>   | ○          | <ul style="list-style-type: none"> <li>Implement "zero accident" activities (practice Hazard prediction activities, pointing and calling, and 5S activities)</li> <li>Implement improvement and promotion of close-call incident proposals and improvement proposals (setting of promotion targets)</li> <li>Implement assured horizontal expansion of accident examples of the Group companies</li> </ul>   |
|                                    | 5) Review and reorganize work manuals and ensure strict compliance               | <ul style="list-style-type: none"> <li>Improve manuals and ensure thorough compliance for items such as work along with safety locks and blocks, transportation of heavy objects and work in high places</li> </ul>  | ◎          | <ul style="list-style-type: none"> <li>Planned review of work manual maintenance</li> <li>Work manual content enhancement</li> <li>Confirm the compliance of work manuals</li> </ul>   |
|                                    | 6) Work risk assessment  | <ul style="list-style-type: none"> <li>Eliminate risks above risk level III</li> <li>Implement a total inspection of safety measures and list dangerous events including abnormal situations and incorrect operation</li> <li>Identify hazardous work risks due to difficulty to improve facilities and strengthen monitoring frameworks of relevant works</li> <li>Implementation of risk assessment of hazardous materials and the display of their appropriate labeling</li> </ul>                            | ○          | <ul style="list-style-type: none"> <li>Implement work risk assessment based on plans</li> <li>Ensure implementation and follow-up of decisions through work risk assessment implementation results</li> <li>Risk extraction skill improvement</li> </ul>   |
|                                    | 7) Safety measures of construction and non-routine work                          | <ul style="list-style-type: none"> <li>Clarified work instructions and procedures and implemented hazard prediction activities</li> <li>Implement safety measures for fire safety, can-contained work and work in high places, as well as thorough compliance with construction rules</li> <li>Secure confirmation records before and after work and ensure thorough inspection records</li> </ul>   | ○          | <ul style="list-style-type: none"> <li>Clarify work instructions and procedures and implement hazard prediction activities</li> <li>Apply thorough construction rules</li> <li>Create and make thorough confirmation methods for pre-operation, work completion and recovery</li> </ul>  |
|                                    | 8) Training and drill promotion  | <ul style="list-style-type: none"> <li>Planned implementation of items such as supervisor education, skills education, education to raise the ability to feel danger and conservation skills education</li> <li>List the necessary qualifications at work and implement enlightenment</li> </ul>   | ○          | <ul style="list-style-type: none"> <li>Plan promotion of education and training</li> <li>Promote acquisition of qualifications</li> </ul>  |
|                                    | 9) Ensuring subcontracting safety  | <ul style="list-style-type: none"> <li>Strengthen guidance on safety management for subcontractors</li> <li>Implement review and provide safety operation procedures manuals, danger and hazardous information (SDS)</li> </ul>  | ○          | <ul style="list-style-type: none"> <li>Strengthen guidance on safety management for subcontractors and follow it up</li> <li>Provide and review safety information such as the results of work environment measurements, danger and hazardous information (SDS) and work manuals</li> </ul>  |
| Occupational health                | 1) Create and maintain a comfortable workplace environment                       | <ul style="list-style-type: none"> <li>Implemented working environment measurements and implemented creation of appropriate working environments</li> <li>Thorough implementation of chemical substance handling education and strict wearing of personal protective equipment</li> <li>Implement display of labels on containers and risk assessment of chemical substances with hazardous risks</li> <li>Implement measures to prevent second-hand smoke</li> <li>Implement workplace communication</li> </ul> | ◎          | <ul style="list-style-type: none"> <li>Implemented working environment measurements and promote working environment improvements based on the results</li> <li>Implement chemical substance handling education and strict wearing of chemical protective equipment as well as confirmation of compliance status for wearing protective equipment</li> <li>Appropriate implementation under the Industrial Safety and Health Law</li> <li>Concrete activities to promote workplace communication</li> </ul> |
|                                    | 2) Promote physical and mental health wellbeing                                  | <ul style="list-style-type: none"> <li>Implemented follow-up and utilization medical examination results</li> <li>Compliance with additional inspection criteria due to regulatory amendments</li> <li>Promoted health promotion program</li> <li>Promoting stress checks and performing appropriate follow-up under Amendment version of the Industrial Safety and Health Act</li> </ul>  | ○          | <ul style="list-style-type: none"> <li>Implement concrete guidance, etc. and effective utilization of health check results</li> <li>Appropriate compliance with additional inspection criteria due to regulatory amendments</li> <li>Promote health promotion program</li> <li>Promoting stress checks under Amendment version of the Industrial Safety and Health Act</li> </ul>  |

<sup>1</sup> 5S activities

Seiri Seiton (organize and order things), seiso (cleaning), seiketsu (cleanliness), and shitsuke (bringing-up). The name "5S" comes from the fact that the first letters of each word begin with "s."

\* Evaluation standards

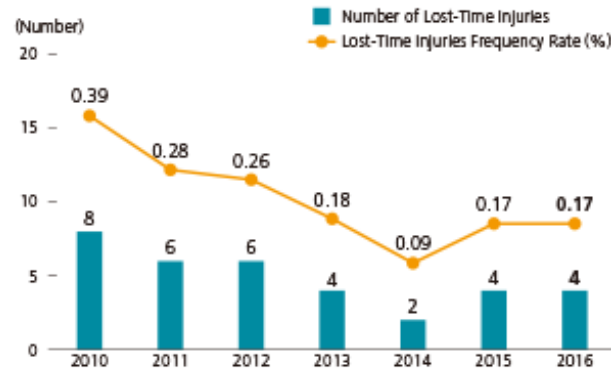
◎: Goal achieved ○: Goal basically achieved △: 50% achieved ×: Far from achieved

## Reporting of accidents and lost time injuries

In fiscal 2015, there were four lost work time injuries in the Group companies in Japan. We have analyzed causes for each incident and reviewed safety on handling hazardous materials and possible hazardous operations to eliminate possible dangers and also secure equipment safety, and have implemented appropriate safety measures. Furthermore, we are working on revising the operation manuals to help prevent re-occurrence of the incidents.

We will continue to work on preventing work-related accidents complying with what was decided.

### Number of Lost-Time Injuries and Changes in Frequency Rates (Group companies in Japan)



## Key Issues 2: Energy-saving, resource-saving and the reduction of the environmental impact

### **Environment Management**

#### **Environment Management System**

The Group works on Energy savings, waste and chemical substance management. We annually create the Shin-Etsu Group Environmental Safety Management Plan in accordance with the Responsible Care code and set goals using numerical numbers. The Company and all the Group companies set goals annually according to this plan and work on their activities.

In order to increase the level of activity, each plant and the Group companies perform several internal audits a year to check if their goals are appropriately set and the progress they have achieved. In addition, we check the activities and achievements plants have made also through periodical environmental control and safety audits.

#### **Targets and Results**

The following are Targets and Results for environmental protection and chemical substance management for fiscal 2015 as well as Targets for fiscal 2016.

## Targets and Results

| Item                          | Priority Issues (Target)  | Implementation Status for Fiscal 2016   | Evaluation | Planned Implementation Items for Fiscal 2017   |
|-------------------------------|---|---|------------|--|
| Environmental conservation    | 1) Zero environmental accidents   | • Achieved target of zero environmental accidents   | ◎          | • Zero environmental accidents   |
|                               | 2) Thorough environmental management  | • Continued appropriate compliance with environmental laws and regulations  | ◎          | • Appropriate compliance with environmental laws and regulations   |
|                               | 3) Promotion of energy savings (Reduction of energy consumption in intensity at an annualized rate of 1%)                     | • The Shin-Etsu Group increased in intensity at an annualized rate of 1.1%<br>• Shin-Etsu Chemical reduced 1.4% compared to the average annual rate   | △          | • Reduction of energy consumption in intensity at an annualized rate of 1%   |
|                               | 4) Reducing greenhouse gas emissions (Intensity reduction to 54% of 1990 level by fiscal 2025)                                | • The Shin-Etsu Group reduced to 54.8% and Shin-Etsu Chemical 51.7% compared to the fiscal year 1990  | ○          | • Reduction to 45% of 1990 level in intensity by fiscal 2025<br>• Implement periodic inspection corresponding to the Act on Rational Use and Proper Management of Fluorocarbons and reports on leakage to the country  |
|                               | 5) Reduce waste (Achieve zero waste emissions (waste to landfill ratio to 1% or less))  | • Landfill waste to total waste ratio of 1.69%  | △          | • Promote achievement of zero waste emissions (waste to landfill ratio to 1% or less)<br>• Promotion of waste generation reduction through intensity unit  |
|                               | 6) Reduced emissions of substances causing water pollution or air pollution (Reduction in intensity at annualized rate of 1%) | • Reduced at an annualized rate of 8.5% for BOD <sup>1</sup><br>• Reduced at an annualized rate of 25.8% for soot and 17.3% for SOx   | ◎          | • Regular review and strict compliance with specific facility using hazardous substances pertaining to the Water Quality Pollution Control Act and installation standards for designated storage facilities  |
|                               | 7) Reduction in water withdrawals (Reduction in intensity at an annualized rate of 1%)  | • The Shin-Etsu Group reduced in intensity at an annualized rate of 3.8%<br>• Shin-Etsu Chemical reduced in intensity at an annualized rate of 3.2%   | ◎          | • Achieve reduction of water withdrawals in intensity by 1% at an average annual rate<br>• Plan and implement measures for improving recycling water ratio   |
| Chemical substance management | 1) Thorough new chemical substance management   | • Thorough management of permitted production volumes (confirmed) and production results<br>• Communicated reporting of harmful substance information, etc., at the time of acquisition   | ◎          | • Thorough management of permitted production volumes (confirmed) and production results<br>• Communicate reporting of harmful substance information, etc., at the time of acquisition   |
|                               | 2) Compliance with legal and other requirements for chemical substance control  | • Responded to revisions and strict compliance with Chemical Substances Control Law <sup>2</sup> , Industrial Safety and Health Act, PRTR Law <sup>3</sup> , Poisonous and Deleterious Substances Control Act<br>• Strict compliance with overseas laws and regulations<br>• Implement control of PCB waste and processes required by the deadline (Deadline: 2020) | ◎          | • Respond to revisions and strict compliance with Chemical Substances Control Law, Industrial Safety and Health Act, PRTR Law, and Poisonous and Deleterious Substances Control Act<br>• Compliance with overseas laws and regulations<br>• Control of PCB waste and processes required by the deadline (Deadline: 2020) |
|                               | 3) Information disclosure on the harmfulness of chemical substances   | • Information disclosure and awareness raising of substances handled by contractors and subcontractors  | ○          | • Confirmation of well-known situations and information provision related to substances handled by contractors and subcontractors  |

<sup>1</sup> BOD (Biochemical Oxygen Demand)

Biochemical oxygen consumption. The amount of oxygen required when decomposing contaminants in the water by microorganisms. This indicates the degree of water pollution.

<sup>2</sup> Chemical Substances Control Law

Short for the "Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc." A law intended to prevent environmental pollution by chemical substances that can be harmful to human health or to ecosystems.

<sup>3</sup> PRTR Law

Short for the "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof." A law intended to promote improved self-directed control of chemical substances by business operators, in order to prevent the risk of damage to the environment.

\* Intensity unit

A measure calculated from the production volume of a reference product.

\* Average annual rate for implementation

Average annual reduction rate from fiscal 2013 to fiscal 2016

\* Evaluation standards

◎: Goal achieved ○: Goal basically achieved △: 50% achieved ×: Far from achieved

## Environmental Certification

Shin-Etsu has continued to obtain ISO 14001 certification, the international standard for environmental management systems. In 1996, Shin-Etsu Chemical's Gunma Plant obtained ISO 14001 certification, becoming the first facility of a major chemical company in Japan to achieve such certification.

 [ISO 14001 Certification of the Shin-Etsu Group](#) 

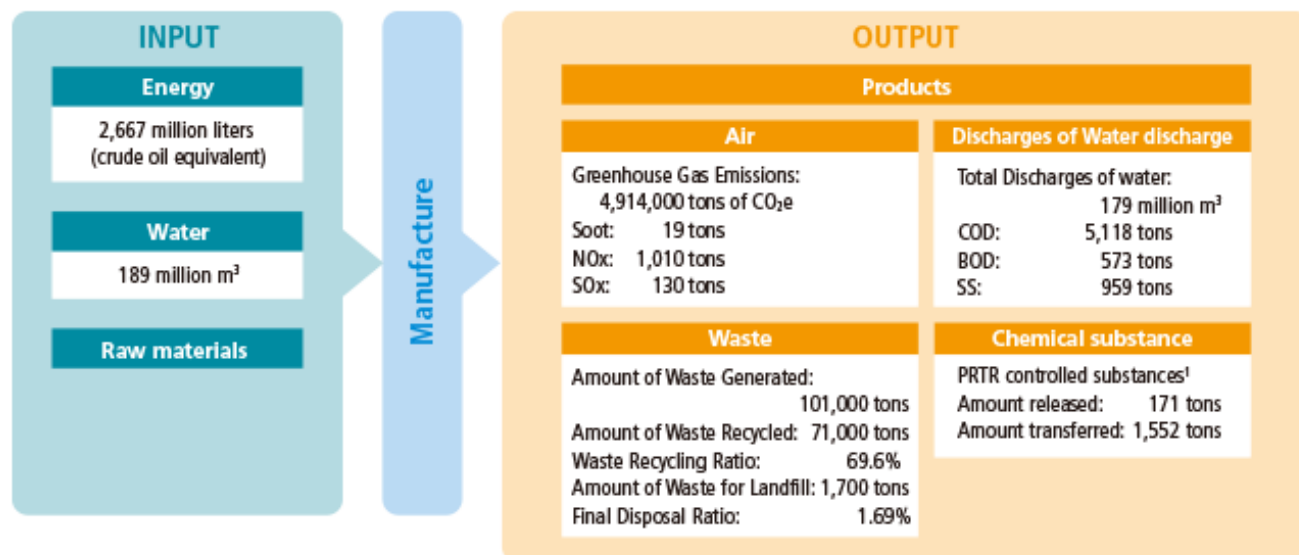
 [ESG Data](#) 

## Promoting the Reduction of Environmental Impact

The Group constantly works so that manufacturing products will have the least influence on the environment. Furthermore, we do examinations so that our products will have the least environmental influence, which is also energy saving as well as resource saving. Research, Manufacturing and Sales divisions are united to develop such products. These well-examined products are used in various fields including industry, our daily lives as well as renewable energy.



## Reducing the Environmental Impact of Business Activities



- 1 PRTR controlled substances  
462 substances designated as Class I designated chemical substances from the "Pollutant Release and Transfer Register in the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management."
- \* In order to clearly define the reduction efforts, the average power CO2 conversion factor from 2000-2009 is used.
- \* Waste standards and PRTR controlled substances differs from country to country, the figures for the Company and Group companies in Japan were counted.
- \* Waste recycling ratio indicates the ratio of an amount recycled to total waste generated.
- \* Final disposal ratio indicates the ratio of an amount of landfill waste to total waste generated.

## Response to climate change

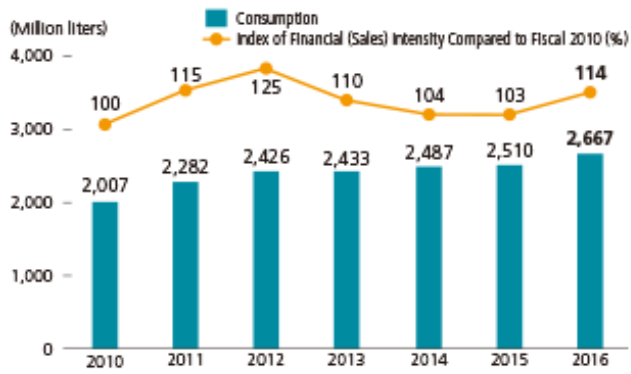
|                               |  |
|-------------------------------|--|
| <b>Mid-term target</b>        | Reduce the greenhouse gas emissions to 45% of the 1990 level in emission intensity unit by 2025              |
| <b>Results and evaluation</b> | The Shin-Etsu Group was at 54.8%, and Shin-Etsu Chemical was at 51.7%, and they could not achieve the target |

|                               |   |
|-------------------------------|---|
| <b>Fiscal 2016 target</b>     | Reduce energy consumption in intensity at an annualized rate of 1%  |
| <b>Fiscal 2016 results</b>    | The annualized reduction rate from fiscal 2013 to fiscal 2016 was 1.4% for Shin-Etsu Chemical. Shin-Etsu Group increased by 1.1%. |
| <b>Fiscal 2016 evaluation</b> | Shin-Etsu Chemical reduced 1% or more at an annualized rate and has achieved the target.  |
| <b>Fiscal 2017 target</b>     | Reduce energy consumption in intensity at an annualized rate of 1%  |

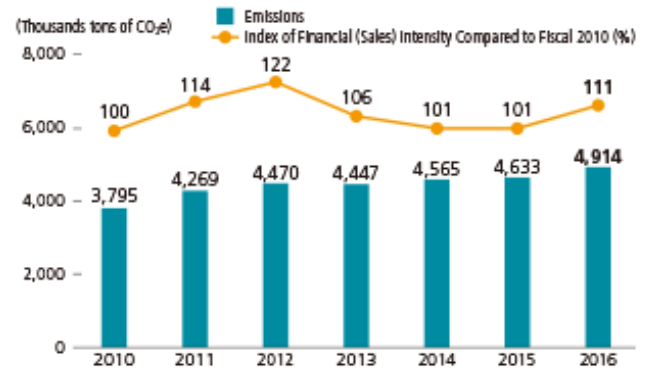
The Group regards the global climate change as a critical issue to be resolved. Starting from fiscal year 2010, the Group promoted energy savings and installation of a cogeneration system in order to achieve the mid-term goal which is "Reduce the greenhouse gas emission intensity to 50% of the 1990 level in emission intensity by 2015". Furthermore, in fiscal 2016, we set a new mid-term target of "reduce the greenhouse gas emissions intensity to 45% of the 1990 level in emission intensity by 2025", and we have been working towards that goal.

Regarding the greenhouse gas emissions intensity for fiscal 2016, the Group and the Company achieved 54.8% and 51.7% of 1990 emissions respectively.

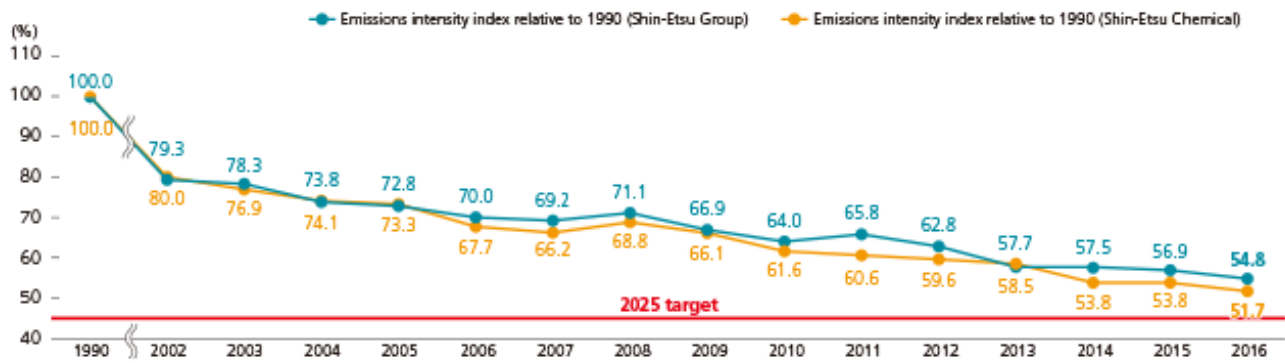
## Energy Consumption (crude oil equivalent)



## Greenhouse Gas Emission Volume Trends



## Changes in Greenhouse Gas Emissions Intensity Relative to Fiscal 1990 Levels



Environmental Data 

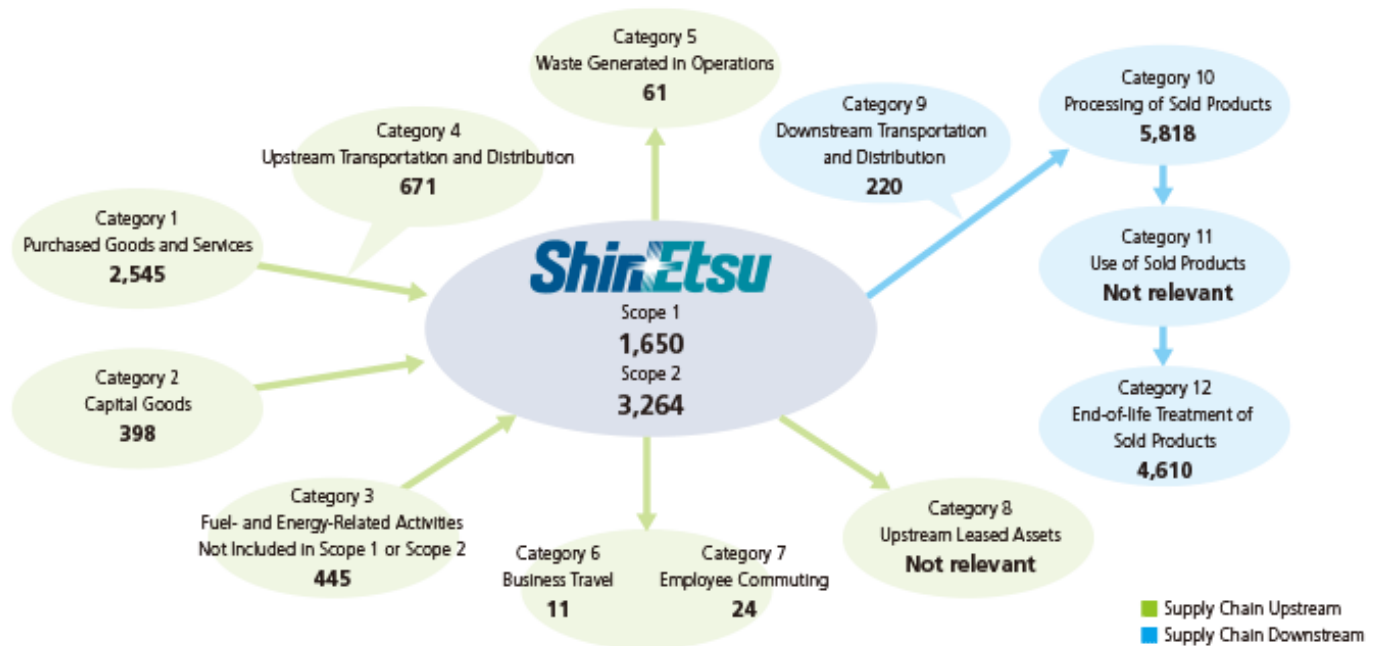
### Scope 3 Greenhouse Gas Emissions

The Group's Scope 3 greenhouse gas emissions for fiscal 2016 were 14,803 thousand tons of CO<sub>2</sub>, amounting to 75% in the supply chain<sup>1</sup>.

<sup>1</sup> Supply chain

Refers to all stages of a product from raw material production until it reaches the final customer.

### Scope 3 Emissions by Category in FY2015



- \* Greenhouse Gas Emission Calculation Range  
SCOPE 1: The company itself has direct emissions from facilities it owns or governs (example: emissions during combustion of materials such as heavy oil and natural gas).  
SCOPE 2: The company itself has emissions during production of purchased energy (example: emissions during power generation of purchased power).  
SCOPE 3: Emissions from the supply chain of the company itself
- \* Since fiscal 2016, the Group started disclosing the green gas emissions in the downstream supply chain. This move has considerably increased the total green gas emissions in the Group's Scope 3.

### Environmental Data

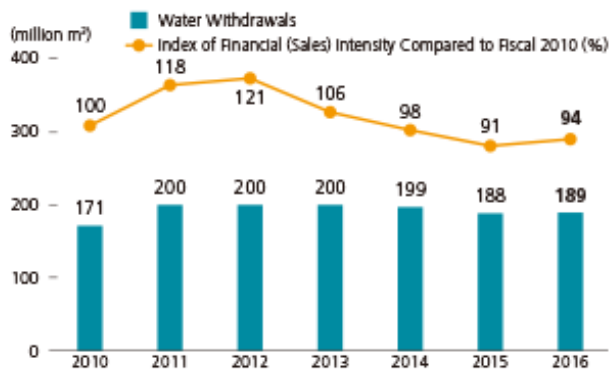
### Water resource conservation, water pollutant elimination

|                               |   |
|-------------------------------|---|
| <b>Fiscal 2016 target</b>     | Achieve 1% reduction of water withdrawals in intensity at an annualized rate  |
|                               | Achieve 1% reduction of water pollutant discharge in intensity at an annualized rate  |
| <b>Fiscal 2016 results</b>    | The annualized reduction rate from fiscal 2013 to fiscal 2016 was 3.8% in the water withdrawals amount and 8.5% in the BOD emissions amount |
| <b>Fiscal 2016 evaluation</b> | The annualized reduction rate was more than 1%, and the target was achieved   |
| <b>Fiscal 2017 target</b>     | Achieve 1% reduction of water withdrawals in intensity at an annualized rate  |
|                               | Achieve 1% reduction of water pollutant discharge in intensity at an annualized rate  |

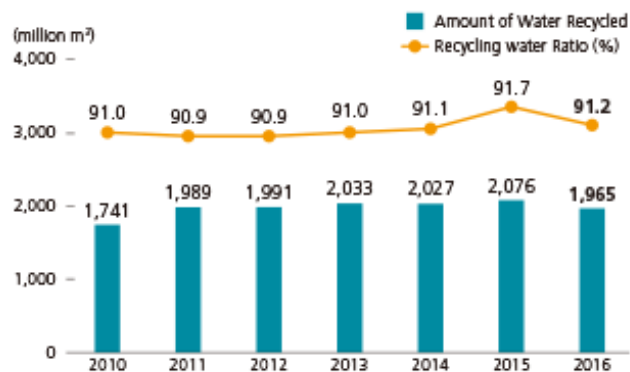
The Group's major manufacturing plants are located where clean water is abundant. However, due to the scarcity of water in many regions of the world, the United Nations Environment Program (UNEP) has predicted that water scarcity in some regions will become serious by the year 2025. To enable the Group to continue to operate in those regions where there is a risk of water scarcity, we are actively engaged in conserving water resources by reducing our daily water withdrawals and recycling and utilizing water. We also comply with regulations concerning water contaminants in emitting water so that the water we discharge will be of sufficient quality with sufficient values. We also check the water quality ourselves for verification.



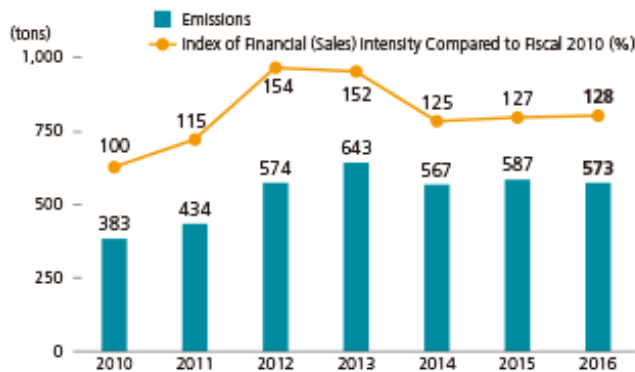
## Water Withdrawals Trends



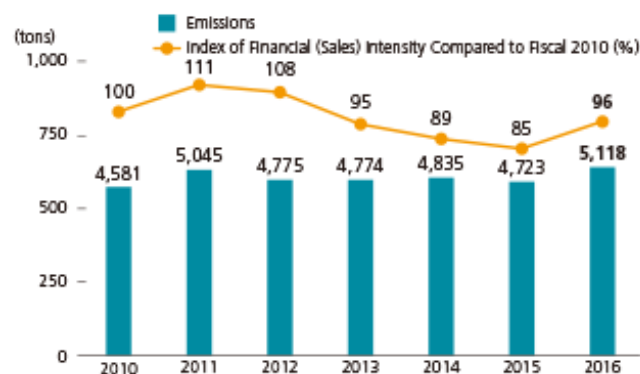
## Amount of Water Recycled Trends



## BOD Emission Volume Trends



## COD Emission Volume Trends



ESG Data

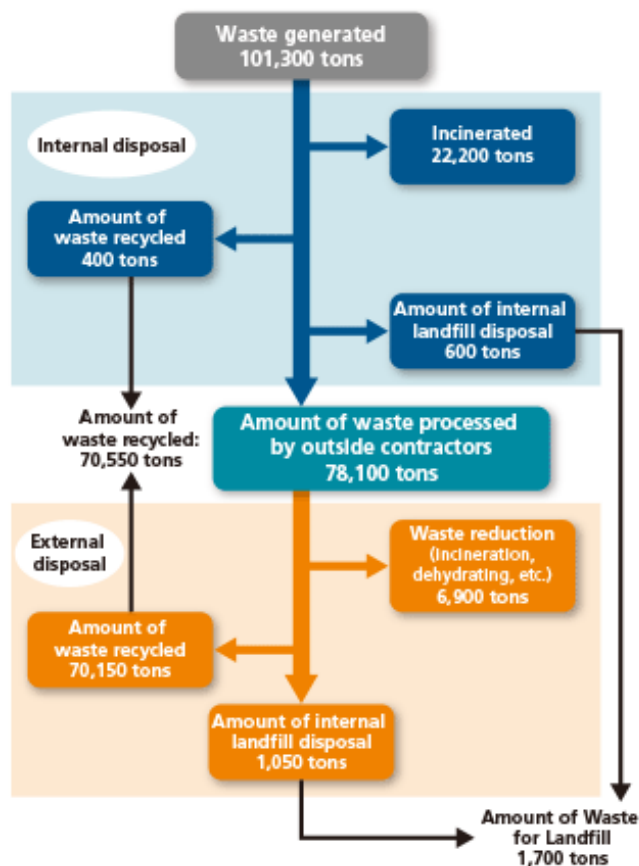
Environmental Data

## Waste reduction

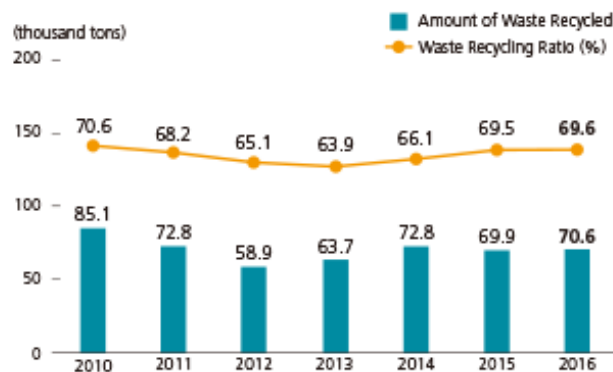
|                               |   |
|-------------------------------|---|
| <b>Fiscal 2016 target</b>     | Achieve zero waste emissions (landfill waste 1% or less of the final amount of all waste generated)     |
| <b>Fiscal 2016 results</b>    | The final waste landfill disposal rate was 1.69% in the Shin-Etsu Group and 1.63% in Shin-Etsu Chemical |
| <b>Fiscal 2016 evaluation</b> | The target was not achieved   |
| <b>Fiscal 2017 target</b>     | Achieve zero waste emissions<br>Promotion of reduction of waste generation through intensity            |

The production volume in fiscal 2016 increased compared to fiscal 2015, but the generated amount of waste and the amount of waste recycled remained almost unchanged with the amount of waste for landfills increasing by 5.0%. However, due to the characteristics of the manufacturing formula, a zero waste emission, which the Group aimed at, could not be achieved because there is a process where a certain amount of residue occurs. We will continue to work on fewer emissions and less waste for landfills. We have external contractors to handle our disposals. We check to confirm that the contractor properly handles disposals by regularly inspecting the site, etc.

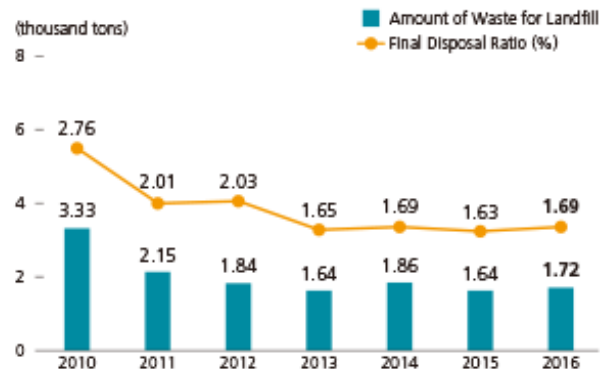
## Flow of Waste Disposal



## Amount of Waste Recycled



## Amount of Waste for Landfill



\* Because waste standards differ from country to country, the figures for the Company and Group companies in Japan were counted.

## Environmental Data

### Resource recycling

The Group collaborates with customers and related industry groups, using cutting-edge technologies to recover used products, extract resources, and reuse them in the Group's products. Through these initiatives, it is possible to reduce the waste output of our customers and the Group itself. We are also contributing to environmental conservation through reuse of resources.

### Rare Earth Magnet Resource Recycling

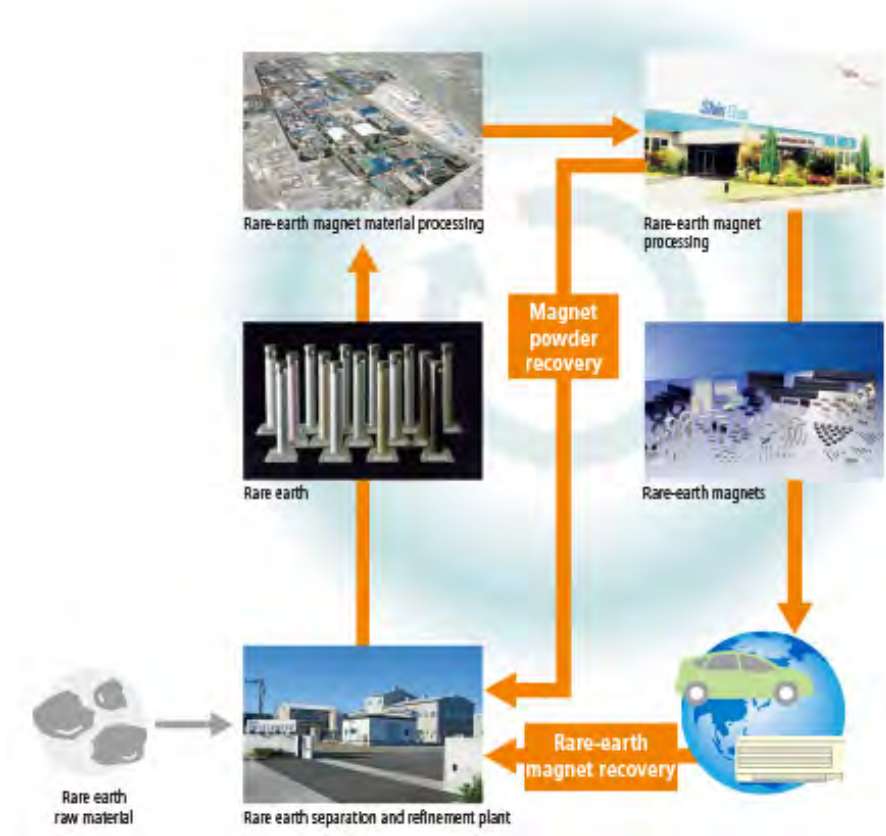
The Group manufactures rare earth magnets by our integrated production process using separation and refinement techniques to extract rare earth magnets from rare earth raw materials.

As one of the measures to achieve stable procurement of raw materials, since 2007, the Group has been recycling magnet powder generated by our rare earth magnet manufacturing processes.

Furthermore, from March 2013, we have also been developing techniques for recycling rare earth magnets used in recovered power-saving air conditioners and hybrid cars in order to re-use resources.

These initiatives have made it possible to reduce the environmental impact that comes along with resource development and to safely and securely protect the valuable rare earth resource. The Group's rare earth magnets create significant economic and social value as recycled products and also contribute significantly to energy conservation.

## Rare-Earth Magnet Resource Recycling Process



## Recycling of PVC Products

Initiatives for the recycling of products containing PVC are making progress. There are various methods for recycling PVC, the most common of which is material recycling. Material recycling uses used PVC products as raw materials to create new PVC products. PVC pipes, flooring materials and other PVC products are not greatly influenced by foreign substance contamination, so various kinds of recycling are conducted for those products. In particular, 60% of used PVC pipes and joints are recycled for reuse in new PVC pipes and joints, and 70% of agricultural film is recycled for use in flooring material.

### [Vinyl Environmental Council](#)



Nearby river cleanup effort (Shin-Etsu Chemical Takefu Plant)

### Pulp purchasing biodiversity conservation efforts

We have bought pulp derived from wood as the main raw material of cellulose derivatives in the Group. Upon purchase, we ask all our pulp purchase partners to consider conservation of biodiversity, and we have confirmed that they all have obtained national and/or international forest certifications. In addition, we work hard to know about our partners' activities on biodiversity activities.

## Conservation of biodiversity initiatives, pollutant countermeasures

### Conservation of Biodiversity

The Group aims for environmentally considerate product design starting already from the product development stage. At the same time, we are also meeting our responsibility as a chemical company by working actively to ensure strict control of chemical substances, mitigate global warming, reduce energy consumption, reduce the amount of waste generated, prevent water pollution, and make other environmental contributions. We are also engaged in activities such as river cleaning in areas neighboring our plants. Furthermore, we request that our business partners implement environmental conservation initiatives concerning forest conservation and similar activities.

The Group preserves the earth's ecosystem through these efforts.

### Release of Chemical Substance

The Group has chemical substances which requires strict release management. The Group works on reducing chemical release with proper manufacturing processes as well as establishing the proper operation conditions of pollutant treatment facilities. In addition, the Group reports the amount of chemical substance released and moved in natural environment according to the PRTR system<sup>1</sup> in the PRTR Law<sup>2</sup>. The main factor in the increase of chloroethylene release is the increase in the number of work days at the PVC plant. On the other hand, release amount per consumption has declined by 5.2% compared with fiscal 2014 due to the production equipment running at optimal conditions.

1 PRTR system

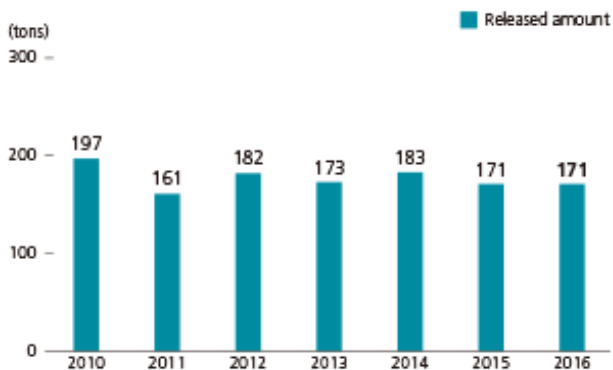
Chemical substance release and transfer notification based on the "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof."

2 PRTR Law

Short for "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof." A law intended to promote improved self-directed control of chemical substances by business operators, in order to prevent the risk of damage to the environment.

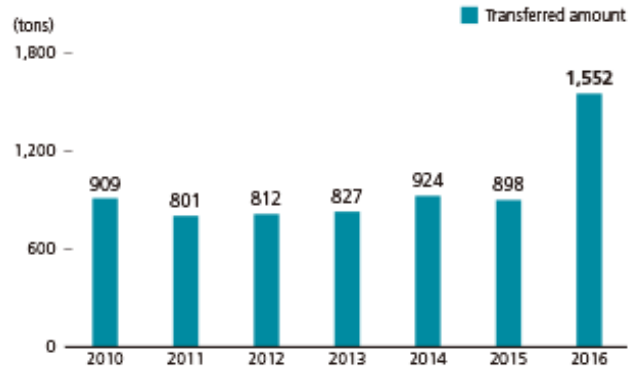
### PRTR Controlled Substance

#### Total Release Trends

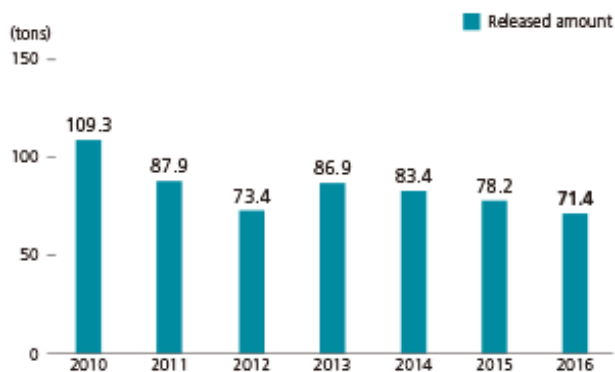


### PRTR Controlled Substance

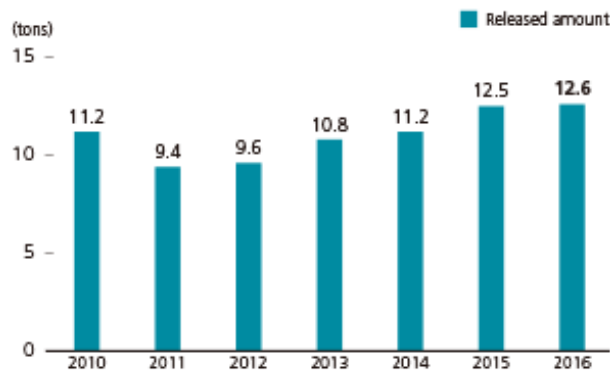
#### Total Amount Transferred Trends



## PRTR Controlled Substance: Chloromethane Release Trends



## PRTR Controlled Substance: Chloroethylene Release Trends



\* The figures shown represent the aggregated data from the Shin-Etsu Group's Japanese domestic operations only, based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof and the PRTR

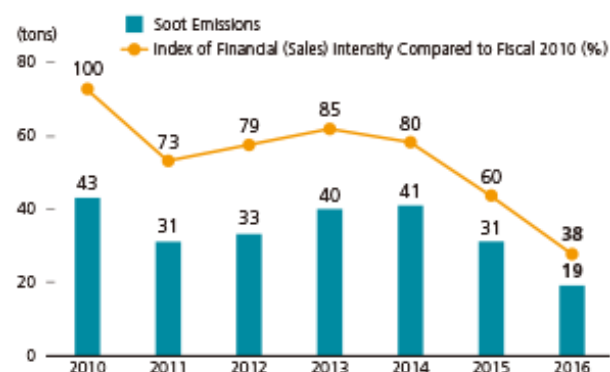
[Environmental Data](#)

## Prevention of Air Pollution

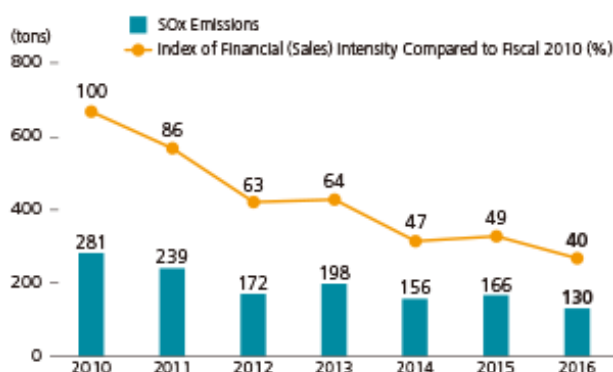
The Group is working to reduce emissions of air pollutants by setting emission reduction targets at each of our Group companies and by converting to fuel components with less sulfur. Each group company carried out regular investigations on emitted gas to confirm compliance with laws and regulations.

In fiscal 2016, soot emissions, NOx and SOx emissions decreased despite of an increase in production.

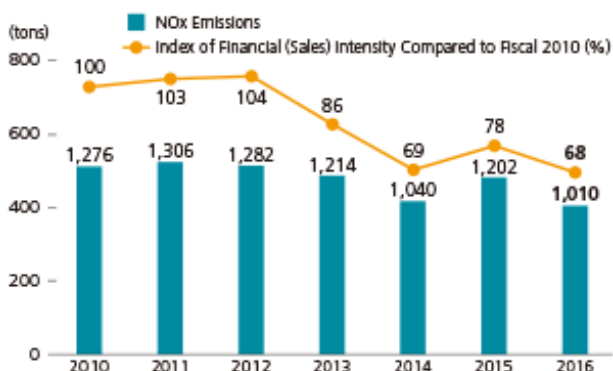
### Soot Emissions Trends



### SOx Emissions Trends



### NOx Emissions Trends



[ESG Data](#)

[Environmental Data](#)

## Prevention of Soil Pollution

Groundwater and soil monitoring at each plant is being carried out in accordance with the Soil Contamination Countermeasures Act, and we make sure that we are in compliance with laws and regulations.

## Environmental Accounting

In fiscal 2015, the Company referring calculated to the Environmental Accounting Guidelines 2005 prepared by the Ministry of the Environment in Japan calculated the investments and expenditures involved in the reduction of the environmental impact of air pollution, water pollution, environmental release of chemical substances, etc.; energy-saving measures to conserve the global environment; and waste reduction and recycling to improve reuse of resources.

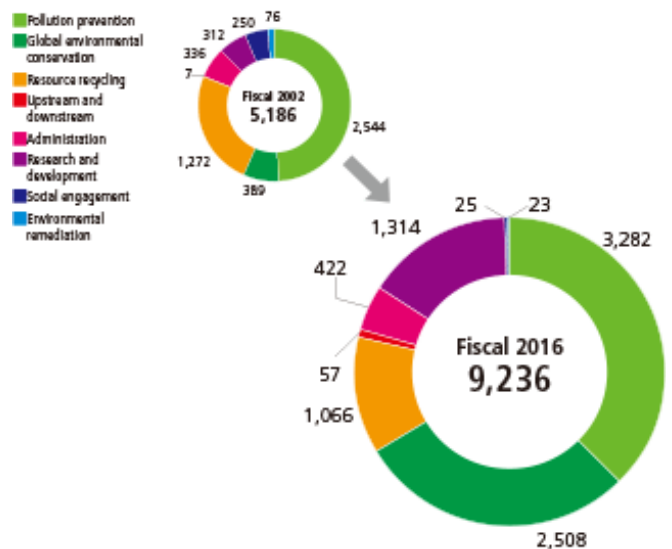
### Environmental Conservation Costs in Fiscal 2016

| Category                                    | Details  | Investment   | Expenditure  |
|---|--|--------------|--------------|
| Plant area costs                            |  | 2,083        | 7,396        |
| (1) Pollution prevention costs              | Prevention measures for air, water, noise and other types of pollution                         | 770          | 3,282        |
| (2) Global environmental conservation costs | Energy saving and global warming mitigation measures   | 356          | 2,508        |
| (3) Resource recycling costs                | Waste reduction, recycling and other measures  | 957          | 1,606        |
| Upstream and downstream costs               | Green purchasing and container and packaging measures  | 0            | 57           |
| Administration costs                        | Environmental management, environmental impact monitoring and environmental education measures | 111          | 422          |
| Research and development costs              | Research and development of environmentally conscious products and processes                   | 2,354        | 1,314        |
| Social engagement costs                     | Donations and contributions to environmental saving  | 0            | 25           |
| Environmental remediation costs             | Assessment, handling and other costs related to environmental pollution                        | 0            | 23           |
| <b>Total</b>                                |  | <b>4,547</b> | <b>9,236</b> |

### Economic Benefits of Environmental Accounting in Fiscal 2016

| Details of benefits                    | Economic benefit (millions of Yen) |
|--|------------------------------------|
| Energy savings                         | 415                                |
| Improved production efficiency         | 1,449                              |
| Production process                     | 1,350                              |
| Secondary materials costs              | 148                                |
| Reduction in waste treatment costs     | -47                                |
| Profit from sale of valuable resources | 102                                |
| <b>Total</b>                           | <b>1,968</b>                       |

### Cost of Environmental Conservation (millions of yen)



## Key Issues 3: Product quality improvements and product safety control

### Quality control

The Group is making an effort on stable supply of the high quality products requested by the customers.

Each the Company's division and/or Group companies are promoting quality control activities. The sales department, research and development department, manufacturing department and quality assurance department cooperate in roles as in the following in order to meet the demands of our customers.

- **Sales department**

Receive to the customer requests, and promptly inform them to the research and development department as well as the manufacturing department

- **Research and development department as well as the manufacturing department**

Utilize the customer requests for the improvement of existing products and research and development of new products

- **Quality assurance department**

Make a final confirmation on product taking into account the product characteristics and the customers use

Almost all of the Group's manufacturing bases, both domestic and overseas, have obtained certification of the quality control systems such as ISO 9001, ISO/TS16949, etc.

- **Quality Control**

- **ISO 9001 Certification of the Shin-Etsu Group (45kb)** 

### Response to complaints

We have established a strict rule to make an initial response to all quality complaints from customers within 48 hours of receipt.

In particular, the recall and product liability problem that has a social impact is defined as a critical quality claims and is given high priority distinguished from other claims. When a serious claim occurs, it is immediately reported to the top management so that a company-wide response can be implemented.



## **Quality audits and support**

To solve the zero quality problem, the claim and complaint information from the customers are closely examined. In quality audits, quality control activities and the quality control system are checked and improved.

Also, quality control activities are evaluated according to two different viewpoints, which are the customers' viewpoint and quality cost viewpoint. We work to find the root cause of quality issues and to make an effort toward the recurrence prevention.

Furthermore, Six Sigma<sup>1</sup> programs are deployed on a company-wide basis in order to improve the quality level.



Quality audit (Shin-Etsu Chemical Naoetsu Plant)

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1 Six Sigma programs

Quality improvement method developed by Motorola in the 1980s. Focused on processes where quality variation appears, it is designed to minimize variation within the processes and thereby reduce the incidence of quality defects. This approach has been adopted across the Group.

## **Product safety control**

Product safety is being managed from product development to transport based on internal regulations.

The safety is confirmed and risk assessment is performed for environment and health in the development of new chemical substances. We also focus on developing products as well as their manufacturing technologies which do not use hazardous substances that have been designated by the Industrial Health and Safety Law and Chemical Substances Control Law<sup>1</sup>, as well as the EU RoHS Directive<sup>2</sup>. Furthermore, we submit necessary notifications and reports according to laws and regulations.

Customers are offered information such as product hazards and risks in SDS<sup>3</sup> in order to ensure proper transmission of information to the supply chain.

Through SDS, customers are requested to handle products safely by complying with laws and regulations, installing abatement equipment, wearing protective equipment, etc.

As a transportation safety measure, we issue Yellow Cards<sup>4</sup> and/or Container Yellow Cards<sup>5</sup> that are affixed to containers.

Furthermore, pictorial indication of hazard and harm is also implemented in accordance with GHS<sup>6</sup>.

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1 Chemical Substances Control Law

Short for "Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc." A law intended to prevent environmental pollution by chemical substances that can be harmful to human health or to ecosystems.

2 RoHS (Restriction of the Use of Certain Hazardous Substances) Directive

EU directive on restricting the use of certain hazardous substances in electrical and electronic equipment.

3 SDS (Safety Data Sheet)

SDS lists the physical and chemical properties of the chemical substance together with harmfulness and emergency response procedures. Designed to promote safer use of chemical substances and prevent accidents and incidents, SDS are supplied by manufacturers, importers and distributors to customers at the point of sales or shipment.

4 Yellow Cards

The yellow cards are cards on which all relevant information on treatment required in case of an accident during transportation of chemical substances is described.

The cards are handed to the transport contractor to be brought by tanker lorry or other means at the time of transportation.

5 Container Yellow Cards

The standard yellow card system is not suitable for use with mixed cargoes and small-lot deliveries. Instead, each container carries a label displaying safety information such as UN number of chemical name and emergency response procedure number.

6 GHS (The Globally Harmonized System of Classification and Labeling of Chemicals)

Internationally standardized system of classification and labeling of chemicals.



# Shin-Etsu Group Key CSR Issues

## Key Issues 4: Promoting CSR procurement and the diversification of supply sources

### **Basic Procurement Policy**

A Basic Procurement Policy has been formulated for the purchasing of supplies needed for production activities, including raw materials, sub materials including transportation packaging, and machinery and equipment. This policy is ensured in the Group and posted on the website. Business partners are expected to understand the Basic Procurement Policy and asked to incorporate the content of the Policy into their supply contracts.

In addition, the Group prepared and distributed the Guidelines for CSR Procurement so as to ensure that business partners have a deeper understanding of the Basic Procurement Policy.

- Basic Procurement Policy
- Shin-Etsu Group CSR Procurement Guidelines

### **Compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors**

Staff members in charge of purchasing and procurement attend external seminars and internal training sessions to learn specific examples in order to support thorough compliance with the Subcontract Act.

Also, we make sure that all the subcontractors that are applicable for the Subcontract Act are in full compliance by periodical checks and through new transaction report.



Internal auditing for compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors.

### **Initiatives Aimed at Eliminating the Use of Conflict Minerals**

In our Basic Procurement Policy, the Group has declared our dedication to eliminating conflict minerals<sup>1</sup> from all product procurement. We ask that all business partners adhere to this policy, and we regularly perform studies of pertinent minerals, tracking their production all the way back to the smeltery level.

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<sup>1</sup> Conflict minerals  
Minerals used to fund conflicts between the Democratic Republic of the Congo and its neighbor countries. These conflict minerals are tantalum, tin, gold, tungsten, and their derivatives.

### **Procurement Audit**

Before and after transactions, the business partner is asked to complete a procurement audit checklist, the results of which are used for evaluation. Additionally, we visit business partners in Japan and overseas whenever necessary to carry out audits.

## **Procurement Conferences**

The Purchasing Department holds a company-wide meeting every six months with all procurement department personnel company-wide to discuss material procurement. This meeting is not only for reporting material procurement but also for training procurement department personnel according to the Guidelines for CSR Procurement and checking the status of CSR procurement as well as learning the latest examples of CSR Procurement inside and outside the Company.



Procurement Conferences

## **Business Continuity Initiatives**

The Group has formulated a Business Continuity Plan and is prepared for contingencies. We would like business partners to understand the effectiveness and practicality of the Group's Business Continuity Plan and draw up a business continuity plan of their own.

## **Control of Chemical Substances Used as Raw Materials**

The Group checks the ISO 14001 status of business partners and considers preferential business transactions with business partners that have ISO certification so as to purchase materials of lower environmental impact. On making contracts on specifications for raw material supply, we work to confirm the following.

- The business partners' use of chemical substances with environmental impact in products and packaging, their environmental management systems
- Their handling of prohibited substances as stipulated in the RoHS Directive
- Their Green Partner certification status

## Key Issues 5: Respect for human rights, the development of human resources and the promotion of diversity

### **Respect for Human Rights**

#### **Observance of International Labor Standards**

The Group respects the human rights of employees in accordance with the international labor standards through the International Labour Organization (ILO), and never discriminates employees on the basis of race, age, gender, sexual preferences, ethnic or national origin, disabilities or religion.

To this end, the Company confirms with its consolidated companies every year whether respect of human rights, labor management, and employment are being appropriately implemented following laws and regulations in their respective countries and regions. In addition, when building a new plant, its impact on the region in terms of human rights is taken into consideration.

#### **Confirmation Items concerning Respecting Human Rights**

Prohibition of child labor, proper working hours, decent wages, proper employment contract in writing, prohibition of inhuman treatment, prohibition of discrimination, freedom of association

#### **Efforts for human rights awareness**

The Group has established a Human Rights Enlightenment Promotion Committee. This committee holds regular human rights awareness training for directors and employees. Human rights Q & A are serialized in our internal company newspaper, and we compile a human rights enlightenment motto to coincide with our annual human rights week in December.

Furthermore, the Company has been a member of both the Tokyo Industrial Federation for Human Rights and the Osaka Dowa / Human Rights Issues Industrial Federation and participates proactively in events held by both federations as well as training sessions held by administrative organizations.

### **Education/Training and Personal Development**

The Group supports employees to grow through various training systems. The training system has training for different staff grades, international adaptation training, auditing student system, environmental education, safety education and mental health education.

#### **Conduct international adaptation training**

The Group is expanding its business activities throughout the world. Competency to communicate in foreign languages is therefore an essential skill for smooth operations. Therefore, the Company offers the following kinds of training.

- English language training (meeting skills course and presentation skills course)
- Cross-cultural communication training
- Chinese conversation classes

#### **Auditing system for students**

In 1962, the Company established an auditing system for students. Under the learning system with the goal of improving the workforce, up to about ten operators at manufacturing sites of the Group each year are chosen and sent to study at universities for one year. In the 53 years since the system was introduced, a total of 521 employees have completed the program and are now functioning in various workplaces.

## Training system list

|                              | Training for different staff grades   | Specialized education  | General education   | Special education  | Environment and safety education   | Quality control education   | Six Sigma education                            |
|------------------------------|---|--|---|--|--|---|--|
| <b>General manager level</b> | Advanced management training<br>S staff group/<br>M staff group training                        | <ul style="list-style-type: none"> <li>Patent training</li> <li>Training for adaptation to internationalization</li> </ul> English language training, meeting skills course I/II<br>English language training, presentation skills course I/II<br>Chinese conversation classes<br>Intercultural communication training | Mental health seminars<br>Human rights awareness training | Course for management development training (external training)<br><br>Auditing student system (1 year) | Specialized education in environmental control and safety<br><br>Supervisor education<br>Safety education<br>Special education<br>Basic education<br>New recruit education | QC master course<br><br>QC intermediate course<br><br>QC basic course | Black belt training<br><br>Green belt training |
| <b>Section manager level</b> | Middle management training  |  |   |  |  |   |  |
| <b>Junior manager level</b>  | Line management training<br>Staff management training<br>Leader training                        |  |   |  |  |   |  |
| <b>Regular employees</b>     | Junior leader training<br>New employee second-phase training<br>New employee induction training |  |   |  |  |   |  |

## Performance-based Personnel Evaluation Systems and Equal Opportunities

The Company has introduced a personnel system that places importance on employee ability and work performance. This system proves useful for increasing employees' motivation, as their treatment reflects their performance, attitude, and evaluations of how they meet their challenges to achieve higher goals.

To operate the personnel system in a fair and appropriate manner, evaluation training is provided for all managers who conduct performance review so that they can carry out personnel evaluations in a fair way.

Transparency is increased by making evaluation standards available and disclosing the results. In addition, there is a system of interviews between a person who evaluates and the person who is evaluated to ensure that they can communicate successfully. During interviews, each staff member and his/her immediate superior are using Communication Sheets to ensure mutual awareness of the superior's expectations and are setting half-year goals. Furthermore, feedback on progress is given for further ability development.

## Promotion of Diversity

### Active promotion of diverse human resources

As a group engaged in business operations around the world, the Group hires local employees at overseas group companies and hires foreign nationals in Japan.

The entire Group is also working to proactively employ people with disabilities and create environments where it is easy for them to work. Our employment population for persons with disability exceeds the legally mandated employment rate.

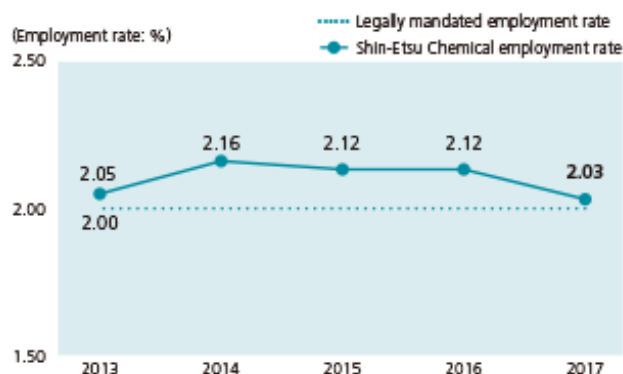
We have created the Internal Re-Employment Program for employees who have reached the retirement age of 60 years, which allows employees who wish to be re-employed to stay until a maximum age of 65.

Furthermore, the Group has been promoting women's participation and advancement. In the next five years from fiscal 2016, the Company will target that:

1. The rate of hiring women is 40% for administrative positions and 10% for engineering positions.
2. The number of women in managerial positions including junior manager level will be doubled compared to the number in fiscal 2014.

Based on the above goals, the Group will continue promoting employees to management positions, regardless of gender.

### Employment Rate of Persons with Disabilities





Wheelchair Ramps

## System for work-life balance

### Childcare support system

The Group supports employees having and raising children. Employees can use the Company's childcare leave system for children up to three years old. About 40 employees on average use the childcare leave system in the Company and consolidated companies in Japan. In addition, employees can use the shorter working hour system and shorten their working hours for a maximum of two hours. This system can be used until children graduate from elementary school. Furthermore, three days of paid leave are granted when a spouse delivers a child.

Childcare is supported according to local laws and regulations in overseas Group companies.

### Main system for childcare support (Shin-Etsu Chemical)

|                               | Childbirth  | Three years old | Entering elementary school | Graduating from elementary school |
|-------------------------------|---|-----------------|----------------------------|-----------------------------------|
| Maternity leave               | Six weeks before and eightweeks after the childbirth                                  |                 |                            |                                   |
|                               | Five days when a spouse has childbirth  |                 |                            |                                   |
| Childcare leave               | * Legally 1.5 years old   |                 |                            |                                   |
|                               | Five days per year when having one child<br>10 days per year when having two children |                 |                            |                                   |
| Sick/injured child care leave | * As per the legal requirements   |                 |                            |                                   |
|                               |   |                 |                            |                                   |
| Short hours Work              | * Legally three years old   |                 |                            |                                   |
|                               |   |                 |                            |                                   |

Legend: Legal (light blue), Progressive measures at Shin-Etsu Chemical (darker blue)

### Number of Employees Who have Taken Childcare Leave

|                                 | Fiscal 2014 |        | Fiscal 2015 |        | Fiscal 2016 |        |
|---------------------------------|-------------|--------|-------------|--------|-------------|--------|
|                                 | Male        | Female | Male        | Female | Male        | Female |
| Shin-Etsu Chemical Co., Ltd.    | 2           | 8      | 0           | 6      | 0           | 9      |
| Consolidated companies in Japan | 3           | 44     | 2           | 36     | 0           | 35     |
| Consolidated companies total    | 56          | 86     | 44          | 73     | 68          | 72     |

\*The length of childcare leave differs from country to country, as the program is based on local law.

## Nursing care leave system

The Company has a nursing care leave system as shown in the chart below. The system enables employees to work in the Company while caring for elders.

The Nursing Care Guidebook is issued in which all the necessary information on our nursing care system and care insurance is provided. Furthermore, we started “health care and nursing support” services in fiscal 2014 and provide counseling by external experts.

### Main system for the care system (Shin-Etsu Chemical)

|  | 93 days   | One year |
|--|---|----------|
| Care leave                               | * Legally 93 days   |          |
| Measures such as short-time work, etc. * | * Legally 93 days   |          |
| Time off for nursing care                | Five days per year when having one person to be cared for<br>10 days per year when having two persons to be cared for |          |
|  | * As per the legal requirements   |          |

\* Flextime system, measures to start/finish early or late

|       |  |
|-------|--|
| Legal | Progressive measures at Shin-Etsu Chemical |
|-------|--|

### Number of people obtaining nursing care leave

|                                 | Fiscal 2014 | Fiscal 2015 | Fiscal 2016 |
|---------------------------------|-------------|-------------|-------------|
| Consolidated companies in Japan | 3           | 3           | 1           |

## Welfare and Benefits

### Accumulated holidays

If a certain number of annual paid holidays granted in accordance with labor regulations have expired without being taken, a certain number of days can be treated as saved holidays. Employees may use these saved holidays for nursing care, for injury or illness, for volunteer work for regional disasters or for donating organs or bone marrow transplants.

### Employee hot line

As a counseling service for trouble with work or other issues, we have set up Dial Shin-Etsu, which is staffed by external counselors who are specialists from outside of the Company. Consultations are received anonymously and treated with strict confidentiality, but if requested by the consulter, the counselor will contact the Personnel Department to discuss possible solutions.

### Shinkansen commuting system

Since 1989, the Group has allowed commuting by Shinkansen at company expense. This system is promoting more employees to own houses. It also enables personnel who are reassigned to head office from plants and other business sites in Gunma and Fukushima prefectures to transfer to jobs in Tokyo without changing their lifestyles. As of March 2016, 72 employees use this system.

### Other systems

The Dr. Kanagawa scholarship was established in June 2012 for employees to study at St. Clark State College in Washington, USA for one year. This scholarship was enabled due to the trusting relationship which was built over many years between the College and our Chairman, Mr. Kanagawa.

In addition, we have established asset-building schemes, an employee shareholding system, and a mutual aid society to provide support for weddings, childbirth, and sudden hospitalization of family members.

## **Welfare and benefits facilities**

We have dormitories and company housing near the head office and plants for employees who live outside the commuting area. We also have directly operated recreational facilities in Kanagawa, Shizuoka, Fukushima and Niigata prefectures. The Group's employees can use these facilities with family and friends. Furthermore, we have partnerships with external recreational facilities, and subsidies are given to the users.



**Shin-Etsu Chemical Hakone Shinsensou (Kanagawa prefecture)**

## **Labor-management Relations**

The Company engages in various dialogues with the Shin-Etsu Chemical Labor Union to promote mutual understanding between labor and management. The Central Labor-Management Meeting is held once a month at the head office attended by top management. They engage in thorough discussions with labor union regarding subjects such as management policy, and outline information about individual businesses, and the personnel system. Also, each business site holds a monthly Local Labor Meeting with the local branch of the Shin-Etsu Chemical Labor Union.

Repeated dialogues and discussions between labor and management deepen mutual understanding and trust and facilitate the expansion of business operations in which staff and management can come together to carry out speedy responses to the changing business environment.

 [ESG Data](#) 

\*Personnel subject to CSR Key Issue 5 in the Shin-Etsu Group are the employees of and loaned employees from Shin-Etsu Chemical.



## Key Issues 6: Respect for and protection of intellectual property

### **Intellectual Property Management**

The Company has established the Basic Regulations for Intellectual Property which has set regulations regarding acquisition, management, and application of intellectual property. The Company's intellectual property is protected from infringement by third parties on the basis of these regulations. These regulations also require respect for the rights regarding all intellectual property of third parties.

Moreover, information in forms such as an annual report is disclosed to allow all persons involved with the Group to have a precise collection of the status of the Group's intellectual property assets.

In addition, employees who have devised useful inventions, improvements and devices in business have been awarded in systems such as the following.

- **Actual compensation awards**

A system to recognize and award employees who greatly contributed to the company by creating an invention or idea which brings great profit to the company in the form of patents

- **Multiple inventor awards**

A system to recognize employees who have made a large number of inventions and who have acquired a large number of patent rights in the Company



### **Initiatives for Information Asset Management**

The Information Asset Management Basic Policy have been established to maintain the confidentiality<sup>1</sup>, integrity<sup>2</sup>, and availability<sup>3</sup> of information possessed by the Group. The information Asset Management

Regulations are set under the Information Asset Management Basic Policy to protect, utilize, control and manage information assets. Furthermore, related rules and regulations such as Information Asset Management Standards set details concerning our customers, handling all the information concerning our customers, management, storage period and waste. In addition, we have formulated the Standards for Preventing Technology Leaks in order to prevent the outflow of technologies.

We also carry out training and implementation related to the Information Asset Management Department, regularly conduct checks on the status of compliance with the Information Asset Management Regulations and other regulations, and perform internal audits.

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1 Confidentiality

Information is to be protected from unauthorized users.

2 Integrity

Information is to be protected from falsification, deletion, destruction and loss.

3 Availability

Ensure authorized users have access to information when needed.

### **Protection of Personal Information**

In order to properly protect personal information in accordance with the Act on the Protection of Personal Information, we have established our Privacy Policy, which is available on our website.

Moreover, we have been providing education on law and regulations and holding lectures regarding personal information protection in trainings for different staff grades in order to ensure the appropriate handling and protection of personal information.

## Key Issues 7: Contribution to industry and social initiatives

### **Fundraising for U.N. World Refugee Day**

#### **Japan**

UNHCR (Office of the United Nations High Commissioner for Refugees) supports world refugees who are driven out of their homes by conflict, persecution and disaster.

Since 2006, we have supported world refugees through the collection of donations in the company for World Refugee Day (June 20), which was established by The United Nations, and we have donated them to the UNHCR through the Japan Association for UNHCR. Furthermore, we have implemented matching gift programs since 2012.



### **Hosting of the Great East Japan Earthquake Disaster Relief Marché**

#### **Japan**

Every March, the Great East Japan Earthquake Disaster Relief Marche has held since 2012 at Asahi Seimei Ohtemachi Building where the Shin-Etsu Chemical Head Office is located. In cooperation with Shin-Etsu Chemical and Shin-Etsu Handotai Co., Ltd., local specialties and Sake from Fukushima, Iwate, and Miyagi prefectures are sold. This is a way of supporting disaster relief activities while our being in Tokyo.



### **Summer school for elementary school student**

#### **Japan**

The Naoetsu Plant has held an annual summer school, organized mainly by new employees, for local children in the upper grades of elementary school since 1975. The goal of this school is to have these children finish their homework earlier so they can use their summer vacation effectively.



#### ■ The Shin-Etsu Group's Activities

# Shin-Etsu Group Key CSR Issues

## Key Issues 8: Accurate and timely information disclosure and communication with stakeholders

### **Information Disclosure**

The Group believes the appropriate and timely disclosure of company information promotes of stakeholder understanding of the Group, and also leads to proper evaluations of the market.

We therefore implement fair and transparent information disclosure by posting information on the Company's website and publicizing it to stock exchanges and the news media. We also publish the Annual Report, financial statements and other reports for shareholders.



Presentations to individual investors

#### ■ Financial & IR Information

## **Dialogue with Stakeholders**

The Group, through a variety of methods and opportunities, is carrying out an active dialogue with stakeholders. We believe that this effort contributes to a sustainable growth of the Group and increases corporate value.

### **Major communication method and opportunity**

|   |
|---|
| <b>Shareholders and Investors</b>   |
| General Shareholders' Meeting<br>Earnings presentations for analysts and institutional investors<br>One-on-one meetings with analysts<br>Small meetings and conferences hosted by securities companies<br>Presentations to individual investors.<br>Information provided by the homepage, annual report, etc. |
| <b>Customers</b>  |
| Day-to-day communications by sales representatives<br>Information provided by the homepage, exhibitions, etc.   |
| <b>Business partners</b>  |
| Day-to-day communications by the purchasing department  |
| <b>Local communities</b>  |
| Dialogue with bodies such as local governments<br>Participation in local events   |
| <b>Employees</b>  |
| Dialogue and consultation with Labor Unions<br>Information provided by the company magazine and intranet  |





## 「信越化学CSRレポート2017」

### 第三者検証 意見書

2017年6月20日

信越化学工業株式会社  
代表取締役社長 齊藤 恭彦 殿

一般社団法人 日本化学工業協会  
レスポンシブル・ケア検証センター長

高瀬純治



#### ■ 検証の目的

本検証は、信越化学工業株式会社が作成した「信越化学 CSRレポート2017」(以後、報告書と略す)に記載された下記の事項について、レスポンシブル・ケア検証センターが化学業界の専門家の意見を表明することを目的としています。

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性
- 2) 数値以外の記載情報の正確性
- 3) レスポンシブル・ケア活動内容
- 4) 報告書の特徴

#### ■ 検証の手順

- ・本社において、各サイト(事業所、工場)から報告される数値の集計方法の合理性、及び数値以外の記載情報の正確性について調査を行いました。調査は、報告書の内容について各業務責任者及び報告書作成責任者に質問すること、並びに彼らより資料提示と説明を受けることにより行いました。
- ・群馬事業所において、本社に報告する数値の算出方法の合理性、数値の正確性、及び数値以外の記載情報の正確性の調査を行いました。調査は、各業務責任者及び報告書作成責任者に質問すること、資料提示・説明を受けること、並びに現地での現物確認を含む証拠物件との照合により行いました。
- ・数値及び記載情報の調査についてはサンプリング手法を適用しました。

#### ■ 意見

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性について
  - ・数値の算出・集計方法は、本社及び群馬事業所において、合理的な方法を採用しています。
  - ・調査した範囲において、パフォーマンスの数値は正確に算出・集計されています。
- 2) 数値以外の記載情報の正確性について
  - ・報告書に記載された情報は、正確であることを確認しました。原案段階では表現の適切性あるいは用語の整合性等に関し、若干問題があることを指摘しましたが、現報告書では修正されており、現在修正すべき重要な事項は認められません。
- 3) レスポンシブル・ケア活動の評価について
  - ・100社以上の海外を含む信越化学グループのCSRパフォーマンス・データをシステムチェックに収集し、対象範囲を年々拡充していることを評価します。
  - ・保安防災の取組みでは、本社で非常操作および作業の見直しを指示し、高リスクの案件を数多く確認し対策を実施していること、監査で実施内容を確認し指導していることを評価します。
  - ・群馬事業所では、年3回の関連会社を含めた安全衛生内部監査、設備新設および増設時の安全審査を着実にやっていること、また化学産業での事故や自事業所で発生した過去の事故・トラブル事例を現在の視点で見直しを行ったこと、かつ事業所の安全基準へ反映していることを評価します。
- 4) 報告書の特徴について
  - ・持続可能な開発目標SDGsに対する取り組み、貢献する製品を分かり易く公開しています。CSRに係るマネジメント、CSR重要課題毎の取組みの実態紹介など、全体の構成が分かり易く、読み易くなっています。本レポートは信越化学グループのCSR活動の取組みをWeb版として発行されており、印刷版を廃止しています。一方、レポートの継続性、読者への配慮から、PDF版のダウンロードも可能にしています。

以上