

Shin-Etsu Chemical Environmental and Social Report

# 2009

2009 Environmental and Social Report  
Published in October 2009  
Shin-Etsu Chemical Co., Ltd.  
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Your opinions, inquiries, and request regarding  
this report are welcomed at our website:  
URL: <http://www.shinetsu.co.jp/e/profile/kankyo.shtml>

The logo for Shin-Etsu, featuring the company name in a stylized blue font with a white starburst graphic behind the 'E' in 'Etsu'.

### CSR Vision

The Shin-Etsu Group supports to the fundamental policies outlined in the Charter of Corporate Behavior of the Japan Business Federation (Nippon Keidanren.) The Group aims to increase its corporate value in both economic and social terms while upholding respect for human dignity, and giving top *safety and environmental protection-first*, as basic guiding principles for its CSR activities.

### Corporate Mission Statement

To contribute to people’s daily lives as well as to the advance of industry and society providing *key materials* and technologies.

### Shin-Etsu Group’s Basic CSR Policy

1

Based on the Shin-Etsu Group’s corporate mission of “contributing to people’s daily lives as well as to the advance of industry and society by providing key materials and technologies,” Shin-Etsu acts with integrity to faithfully comply with the laws and regulations in all the countries in which it is active. The Group carries out corporate activities that are fair and sound. We endeavor to increase the Group’s corporate value, and our goal is to be a company that will achieve continuous growth and development.

2

The Shin-Etsu Group puts its utmost priorities on the fundamental management principles of Safety-and Environment-First, and we aim to be a company that will continue to be trusted by all of our stakeholders.

Shin-Etsu also works to help realize a sustainable society. We endeavor to contribute to the mitigation of the impact of climate change and to promote the preservation of the biodiversity of the Earth.

3

Based on the universal principle of “respecting human dignity,” Shin-Etsu strives to fulfill its responsibilities as a global enterprise by creating an ideal working environment for employees, one in which there is no discrimination of any kind, as well as no forced labor or child labor.

4

In order to continue to work in a harmonious and responsible relationship with global society, Shin-Etsu is committed to carrying out activities that contribute to society and to disclosing appropriate corporate information in a timely fashion. Furthermore, Shin-Etsu maintains a sound and transparent relationship with society through such policies as that of not making illegal payments to public officials in any country.

### Editorial Policy

This *Environmental and Social Report* has been prepared to inform you of the environmental activities and achievements of the Shin-Etsu Group and its approach to CSR. The report also provides an overview of our responsible care activities. Furthermore, the report introduces U.S. subsidiary Shintech Inc. in its feature on the environmental activities of the Group’s overseas subsidiaries (p.35–36.) In editing the report, we have referred to the *Environmental Accounting Guidelines* and the *Environmental Reporting Guidelines* prepared by the Ministry of the Environment, Japan.

### Period Covered by the Report

From April 1, 2008 to March 31, 2009 (Regarding the challenges and approaches mentioned, some information to cover the near future is also included.)

### Organizations Covered by the Report

Shin-Etsu Chemical Co., Ltd. and the Shin-Etsu Group companies are all covered. The scope of the data collection carried out is as follows:

#### 1. Environmental Activity Report

11 Companies: Shin-Etsu Chemical Co., Ltd., Shin-Etsu Handotai Co., Ltd., Nagano Electronics Industrial Co., Ltd., Naoetsu Electronics Co., Ltd., Mimasu Semiconductor Industry Co., Ltd., Shin-Etsu Quartz Products Co., Ltd., Yamagata Shin-Etsu Quartz Co., Ltd., Fukui Shin-Etsu Quartz Co., Ltd., Nissin Chemical Industry Co., Ltd., JAPAN VAM & POVAL CO., LTD., and Shinano Electric Refining Co., Ltd.

#### 2. Environmental Accounting

Shin-Etsu Chemical Co., Ltd.

#### 3. Sociality

Shin-Etsu Chemical Co., Ltd. and consolidated accounting companies, including those overseas but excluding the Shin-Etsu Polymer Group, are all covered.

Notes: For the report of the Shin-Etsu Polymer Group, please refer to the *Shin-Etsu Polymer Group Environmental and Social Report 2009*. For the publishing date, the division in charge of publishing, contact point and URL, etc., please see the reverse cover.

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## Fulfilling corporate social responsibilities and aiming to be a company that is trusted by society



Chihiro Kanagawa  
President and CEO

On the occasion of the publication of the “Shin-Etsu Chemical Environmental and Social Report of 2009,” I would like to report to you on the Shin-Etsu Group’s basic management principles and on their concrete manifestations with regard to our environmental activities and our efforts to contribute to society.

### Towards the realization of Shin-Etsu’s basic management principles

The Shin-Etsu Group’s mission is “to contribute to people’s daily lives as well as to the advance of industry and society through the provision of *key materials* and technologies.” The Shin-Etsu Group’s business operations are based on fair and equitable practices, and are carried out in strict compliance with each host nation’s laws and regulations. We believe that a corporation fulfills its social responsibility to contribute to society by making a profit from its fair business operations, paying taxes, and striving to grow and develop while endeavoring to satisfy all of its shareholders, customers, clients and local residents in the communities in which we operate, and our employees. Accordingly, through each and every one of our daily activities, we are working to fulfill our corporate social responsibilities.

### Safety is our utmost priority

It is above all important to place the utmost priority on safety-first in all of our business operations and the fact that we are totally focused on assuring safety and accident-free plant operations. The Shin-Etsu Group has consistently placed its highest priority on safety-first as its foremost management principle in all of its business operations. I have taken every opportunity to urge all of the employees of the Shin-Etsu Group to make sure that our commitment to safety is being thoroughly implemented at all times at each worksite. Despite our consistently strong safety efforts, an accident involving an explosion and subsequent fire occurred at our Naoetsu Plant in 2007. As a result, we undertook a serious, comprehensive review of all of our safety measures. We proceeded to immediately implement systematic safety inspections, and adopted a range of new safety measures aimed at preventing the recurrence of such an accident at any facility of the Shin-Etsu Group. Furthermore, not forgetting the lessons learned from this accident, we will make all-out efforts in the future in our daily business activities to ensure that safety continues to be our utmost priority. Among our Management Objectives for the fiscal year ending in March 2010, we re-emphasized a policy of “Thoroughly commit to safety- and environment-first and achieve zero accidents and zero human-made disasters.” Towards achieving this objective, we urged that the following five policy steps be concretely put into practice:

1. Put utmost priority on safety and do not try to force a recovery from a production delay.
2. Continually review the operation manuals and ensure that they are being fully complied with.
3. Identify the risks in facilities and processes and eliminate latent risks before any accident happens
4. Each and every one of us should consider safety to be his or her own responsibility.

These four policy steps represent guidelines that each and every one of our Shin-Etsu Group employees must faithfully keep foremost in their minds to help the company assure the achievement of safety as its maximum priority.

At the same time, employees must never forget that safety-first is also a promise that we make to society. With the Shin-Etsu Group working together to implement these four policy steps in order to put in place a system that eliminates any possibility of accidents, we will meet the expectations of society and thereby be enabled to recover its trust.

### Responsibility towards the global environment

The Shin-Etsu Group considers that it is the responsibility of a manufacturer of key materials to steadily supply high-quality products that are essential in everyone’s daily life as well as for industry. We believe that it is an important part of our mission to efficiently use limited resources to help achieve a sustainable society that places a strong emphasis on environmental protection. In particular, with the start of the enforcement of the Kyoto Protocol, the reduction of greenhouse gases is becoming a crucial global issue, and the Shin-Etsu Group, determined to attain its mid-term environmental goals, is working all-out to achieve a major reduction in greenhouse gas emissions.

Furthermore, in our product development and manufacturing processes, we are focusing on taking appropriate measures to comply with all the applicable environmental regulations and standards. For example, we are continually making strenuous efforts to live up to the trust of not only our global customers, but also of all of our consumer end-users. Toward this end, we have acted decisively at an early stage in carefully following international regulatory trends. We have performed this way in recent years, as more stringent environmental regulations for chemical substances have come into force, such as the European Union RoHS (Restriction of Hazardous Substances) Directive, which restricts the use of certain hazardous substances in electrical and electronics equipment, as well as the REACH Regulation (Registration, Evaluation, Authorization and Restriction of Chemicals) on chemicals, which requires the registration of the properties of chemical substances.

### Strengthening internal controls

As another key managerial issue, we are proactively working on strengthening corporate governance. In particular, the strengthening of internal controls is an important issue in fulfilling corporate social responsibility, together with improving management efficiencies and promoting fair corporate activities. In this regard, we are taking such concrete measures as appointing people with broad, high-level experience in company management to a number of positions as external directors and statutory auditors. To carry out internal audits, we have established an Auditing Department, which operates independently from other operational or management departments. To meet the requirements of the Reporting System of Internal Control Over Financial Reporting (ICFR) stipulated in the Financial Instruments and Exchange Act (a Japanese law) which came into effect from FY 2009 (April 1, 2008 to March 31, 2009), Shin-Etsu has established a “Basic Policy Concerning Internal Compliance” under which it has put in place a strict, reinforced internal-control system.

The Shin-Etsu Group is carrying out a wide range of business activities around the world.

We believe that these global corporate activities themselves are the means through which we fulfill our corporate social responsibilities. We always endeavor to appropriately disclose information about the business operations of our company and continue to strive to promote a high level of transparency about our corporate activities. In the future as well, by continuing to nurture the development of various new technologies and *key materials* that contribute to the development of people’s daily lives, industry and society, we will endeavor to maximize the worth of the Shin-Etsu Group. Through carrying out highly transparent corporate activities, we will strive to fulfill our corporate social responsibilities and aim to become a company that is trusted by society.

October 2009

Chihiro Kanagawa  
President and CEO  
Shin-Etsu Chemical Co., Ltd

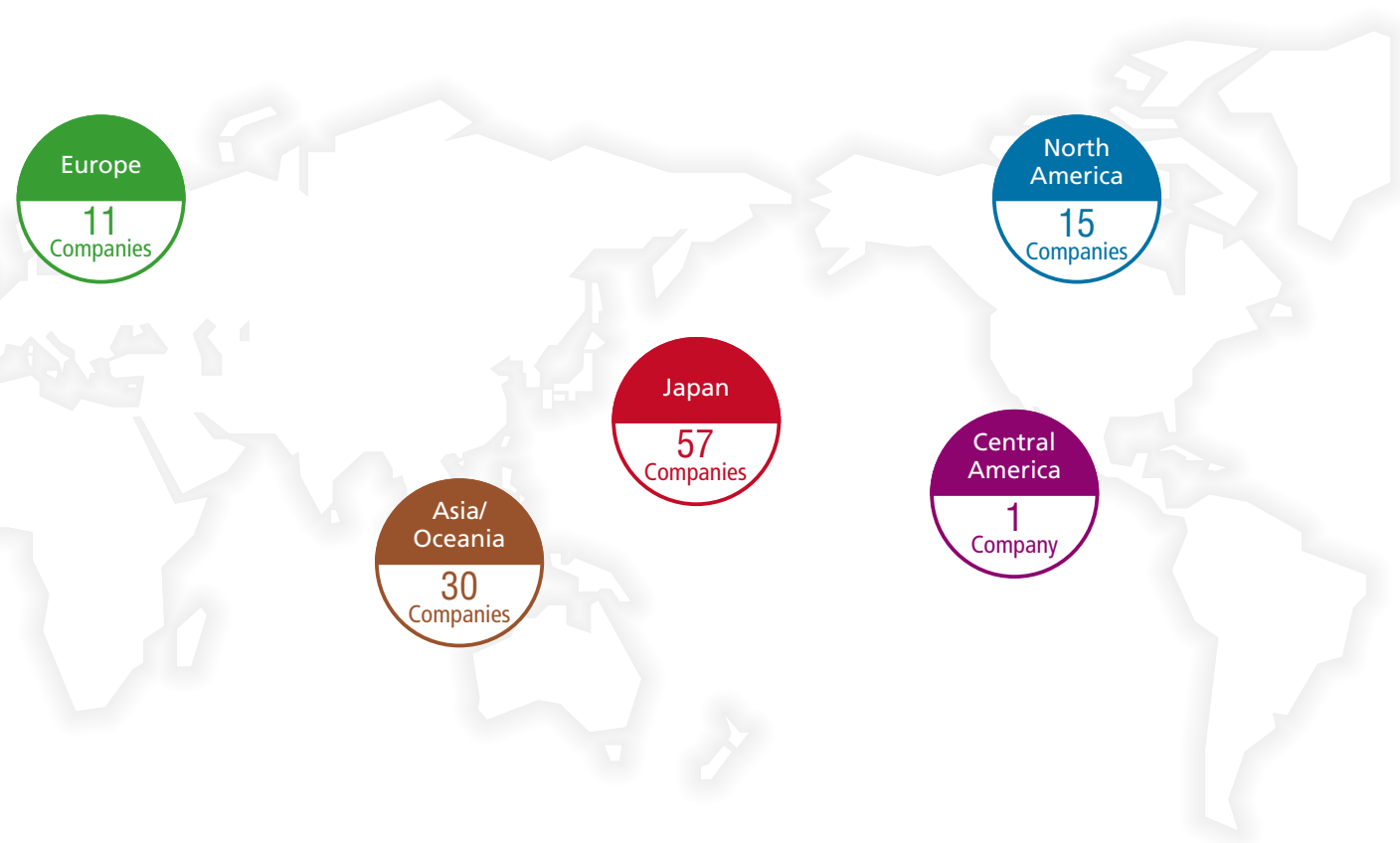
By achieving a globally unrivalled level of technology, quality and cost competitiveness, and through our proactive efforts in CSR activities, we aim to be a Group of companies that society can trust.

As of March 31, 2009, the Shin-Etsu Group comprised Shin-Etsu Chemical Co., Ltd., 96 subsidiaries and 17 affiliates. Shin-Etsu Chemical Co., Ltd., and its subsidiaries and affiliates share responsibility for sales, manufacturing and other operations, and cooperate to develop their respective business activities.

Our business fields are divided into three business sectors: Organic and Inorganic Chemicals, Electronics Materials, and Functional Materials and Others. Each

business sector offers products that either have the largest global market share, such as PVC, semiconductor silicon, photomask substrates for LCDs, and rare earth magnets for hard disk drives (HDDs,) or have the largest market share in Japan, such as silicones.

The Group's products are used in countless everyday applications and are integral to the advancement of society.



**Principal Shin-Etsu Group Companies**

● **Japanese Domestic Group**

Shin-Etsu Chemical Co., Ltd., Shin-Etsu Handotai Co., Ltd., Shin-Etsu Polymer Co., Ltd., Shin-Etsu Engineering Co., Ltd., Nagano Electronics Industrial Co., Ltd., Naoetsu Electronics Co., Ltd., Shin-Etsu Astech Co., Ltd., Mimasu Semiconductor Industry Co., Ltd., Shin-Etsu Quartz Products Co., Ltd., Kashima Vinyl Chloride Monomer Co., Ltd., others

● **Overseas Group**

Shintech Inc., Shin-Etsu Handotai America, Inc., S.E.H. Malaysia Sdn. Bhd., Shin-Etsu PVC B.V., SE Tylose GmbH & Co. KG, Shin-Etsu Handotai Europe, Ltd., Shin-Etsu Handotai Taiwan Co., Ltd., others

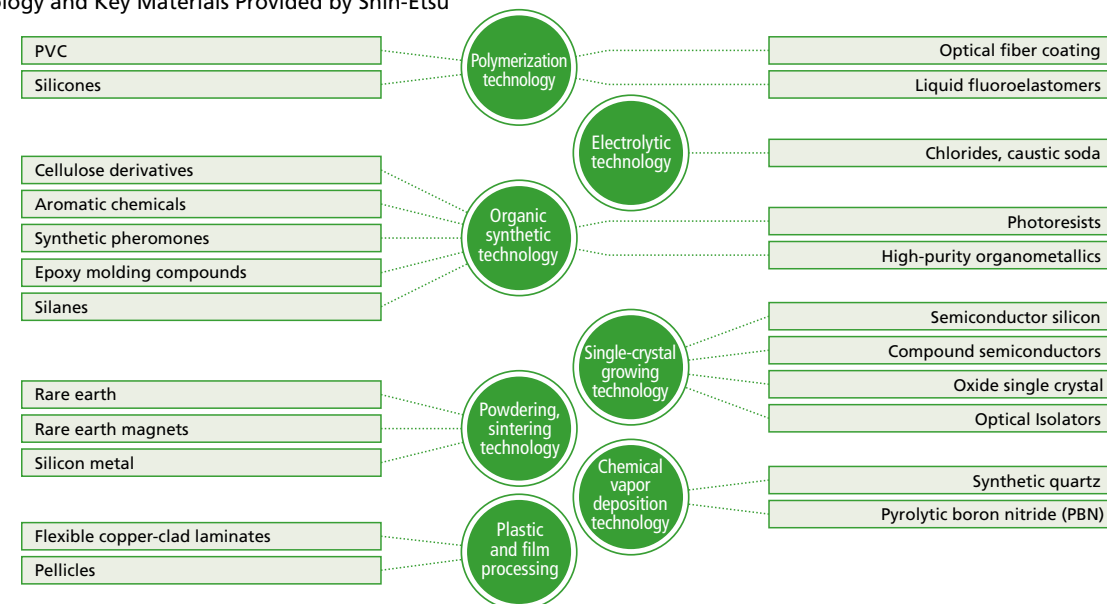
Note: The profile of the Shin-Etsu Group includes the Shin-Etsu Polymer Group.

**Product Information**

● **Guide to Materials**

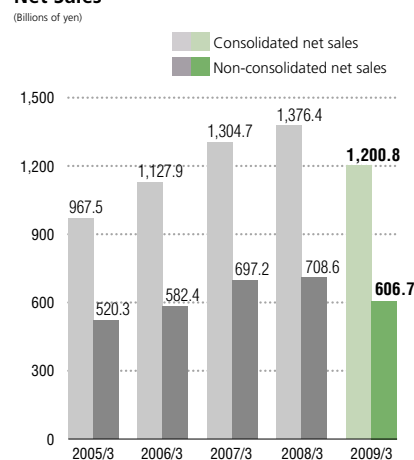
<b>Semiconductor materials</b>	As the world's leading supplier of semiconductor-related materials, we provide a diverse range of items that are indispensable to the manufacture of silicon wafers and semiconductors. We also deal in synthetic quartz photo-mask substrates, gases, chemicals and jigs used in their manufacture.	<b>Architectural/civil engineering materials</b>	We respond to a wide range of needs in the architecture and civil engineering fields by providing such building/civil engineering items as sealing materials, coating materials and admixtures.
<b>Electronic materials</b>	Through a wide range of products including silicones, rare earth magnets and liquid fluoroelastomers, we contribute to the improved performance, function and reliability of such devices as electrical home appliances, communication equipment and computers.	<b>Environmentally friendly materials</b>	Such products as our PVC, silicones and synthetic pheromones help save resources, conserve energy and reduce environmental impact.
<b>Optical materials</b>	Using both natural and synthetic quartz as a base, we develop a diversified range of optical materials, including synthetic quartz preform for optical fibers and assorted optical parts. We supply a wide range of items, from raw materials to processed products.	<b>Automobile-related materials</b>	Because of their diversity and varied characteristics, our products are expected to be crucial for the development of new automobile technologies in the areas of improved reliability size and weight reduction, as well as environmental responsiveness.

● **Technology and Key Materials Provided by Shin-Etsu**

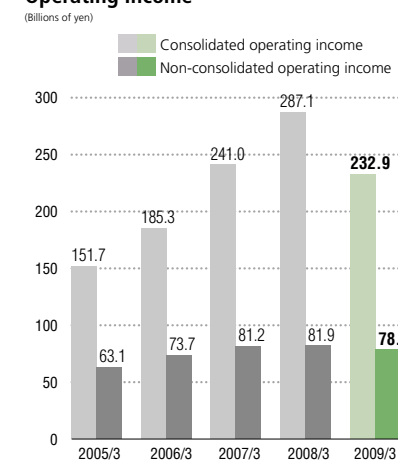


**Financial Highlights**

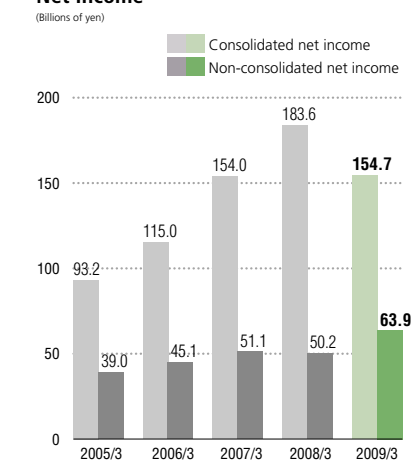
**Net Sales**



**Operating Income**



**Net Income**



Note: Final accounts include the Shin-Etsu Polymer Group.

# HIGHLIGHT Shin-Etsu Eco-Friendly Products

The Shin-Etsu Group is striving to reduce environmental impacts and conserve energy and resources through its ongoing development of environmentally considerate products.

## Pledging energy savings and lifestyle amenity

### PVC window sashes (Vinyl windows)

PVC is derived from 60% salts and 40% oil, which renders it a general-purpose plastic with low oil-resource dependency. Furthermore, high durability and easy recycling find it broad range of uses as a construction material.

PVC window sashes are being promoted to consumers for their thermal conductivity, anti-condensation and soundproofing benefits. Compared with aluminum window sashes, PVC facilitates energy savings and enhances lifestyles, in addition to making a major contribution to global warming prevention.



### PVC Window Frames are Endorsed by the Ministry of the Environment and the University of Tokyo

As reported in news stories, in March 2008 the Ministry of the Environment replaced window frames in its Central Common Government Offices No. 5 using PVC sashes, which have been highly evaluated for their thermal insulation efficiency.

In addition, in March 2009 PVC sashes were installed on one floor of the Administration Bureau building at the University of Tokyo's Hongo Campus. The installation was the first concrete action under the university's Todai Sustainable Campus Project, which has "creating a low-carbon campus" as its highest priority. Energy saving and other factors are currently being measured.



PVC window sashes installed at the Office of the Minister of the Environment

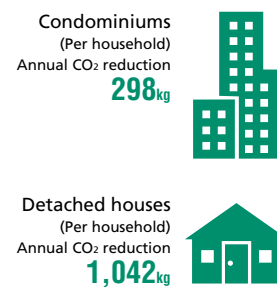
## Top three benefits of PVC window sashes

### 1 Help prevent global warming

Conversion to PVC from conventional aluminum window sashes can result in annual CO<sub>2</sub> emissions cuts of more than 1 ton per house, or 300kg per condominium.

If all detached houses and collective housing throughout Japan adopted PVC window sash systems, the annual reduction in CO<sub>2</sub> emissions could be as high as 35 million tons.

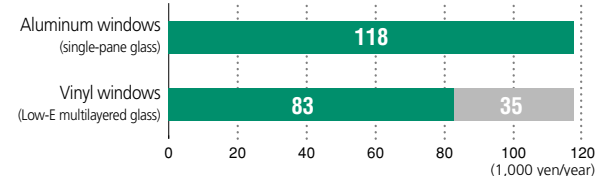
Source: PVC Siding Promotion Committee



### 2 Save on expenditures

PVC window sashes feature low thermal conductivity with high insulation benefits. PVC sash/multilayered glass systems can cut heating and air-conditioning costs by 25% to 40%. In a model case, this is reckoned as an economy of 35,000 yen per year.

#### ■ Heating and air conditioning cost reduction effects

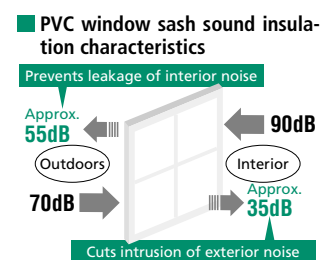


1. Using national average heat-insulated housing as a model (1980 energy conservation specifications)  
 2. Maintaining temperatures of 26°C in summer and 20°C in winter during occupation only using a heat pump air conditioner.  
 3. Electricity charges calculated at 23 yen/kWh.  
 Source: Sakamoto Laboratory, Department of Architecture, Faculty of Engineering, University of Tokyo

### 3 Eliminate noise pollution

PVC window sashes offer excellent soundproofing qualities. In addition to vastly reducing outdoor traffic noise, leakage of interior sounds, such as voices and music, can be constrained.

Source: PVC Siding Promotion Committee



## Helping reduce product size and weight

### Rare earth magnets

Rare earth magnets contribute to the miniaturization, weight saving and power performance of motors and other electrical equipment through their strong magnetic intensity. Such factors find them a broad range of applications, spanning energy-saving air conditioners and a variety of automobile motors.

Employing rare earth magnets in air conditioner compressor motors improves the coefficient of performance (COP) by 5% to 10%, bringing energy savings and CO<sub>2</sub> emission reductions, thus contributing to global warming prevention. Automotive applications include the drive components and generators of motors for hybrid and all-electric vehicles and sensors, helping realize reductions in size and weight of components and promote energy conservation and utilization of clean energy.



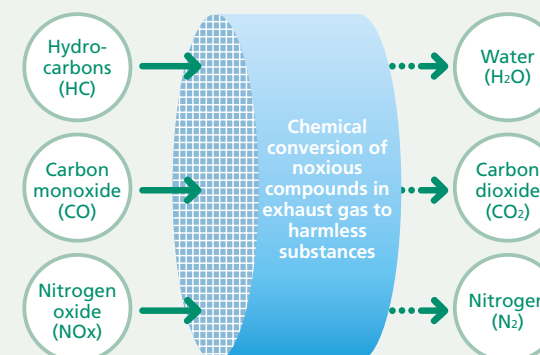
## Aiding atmospheric pollution prevention

### Cellulose derivatives

Cellulose derivatives are manufactured from environmentally friendly natural high-polymer materials. These derivatives are used for appropriate binders for modulating automobile components as ceramic catalyst carrier and diesel particulate filter (DPF.)

Ceramic catalyst carriers function as a purification system for noxious compounds, using chemical reactions that convert hydrocarbons, carbon monoxide and NO<sub>x</sub> to such harmless substances as water and nitrogen. DPFs perform almost complete removal of harmful particulate matter from diesel vehicle exhaust emissions.

#### ■ Catalytic device



## Novel eco-friendly agrochemicals

### Synthetic pheromones

Synthetic pheromones are artificial formulations of the pheromones secreted by insects that can be applied as a new weapon in pest control. By disrupting communications between pests that are harmful to agriculture, pheromones have the effect of reducing next-generation pests density.

For the cultivation of fruit, tea and other vegetables including cabbages in Japan, and apples, peach in countries overseas and grapes in Europe. They are gaining widespread attention on account of their reduced environmental impact, which is significantly lighter than conventional agrochemicals.



■ Corporate Governance ■

The enhancement of corporate governance is the most important task in CSR management.

**Board of Directors/Managing Directors' Meeting**

The Board of Directors consists of 23 members, five of whom are external directors with broad management experience. By minimizing the number of members, Shin-Etsu is working to establish a system capable of faster decision-making and more flexible management.

The Board of Directors determines the Company's fundamental policies, and deliberates and decides upon important business operations in light of the Companies Act and the Company's articles of incorporation. The Managing Directors' Meeting engages in deliberation and determination concerning a variety of other business operations.

**Statutory Auditors**

We have adopted a statutory auditor system. In order to improve and strengthen the audit function, three of the five auditors are external. Statutory auditors attend not only meetings of the Board of Directors and Managing Directors, but also other important in-company meetings, and carry out all audits concerning our business operations. In addition, the auditors hold regular monthly meetings with the Auditing Department, where they receive progress reports on all activities and internal auditing results, give advice on activity details and audit themes, and request further investigation when necessary.

**Officers' Remuneration Committee**

The Officers' Remuneration Committee, chaired by an external director and consisting of a further three directors, carries out all deliberation and evaluation of board members' remuneration and submits its recommendations to the Board of Directors, based on the Regulations of the Officers' Remuneration Committee.

**Auditing on Operation**

The Auditing Department is a specific department, dedicated to taking charge of all matters concerning internal operation audits and internal control systems. This Department also strives to further strengthen corporate governance.

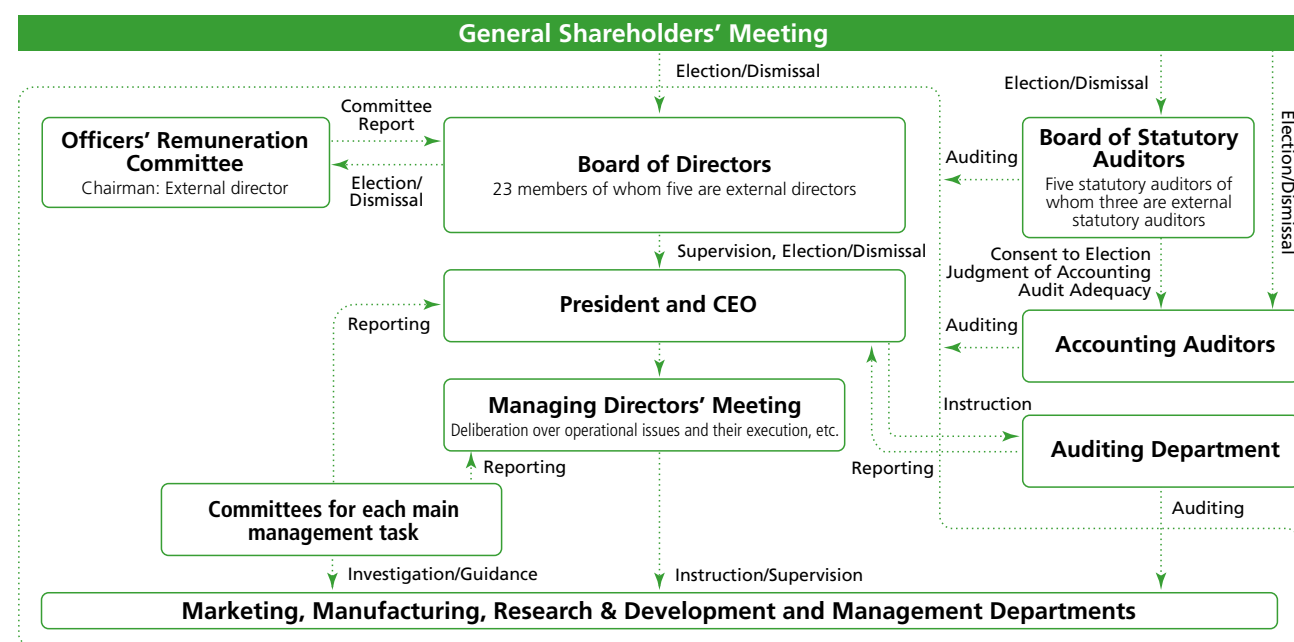
**Risk Management Committee**

Chaired by a managing director, this committee's role is to identify and take preventive measures regarding the various kinds of risk that could possibly occur as a result of the Shin-Etsu Group's business operations.

**Internal Control Reporting System**

With respect to the Internal Control Report System for Financial Reporting applicable since March 2008 based on the Financial Instruments and Exchange Law, the Company fully recognizes the importance of maintaining the credibility and transparency of the Company's financial reporting. The Company's Internal Control Promotion Team takes a leading role in implementing internal control system.

● Shin-Etsu's Corporate Governance Structure



\* For further details of our corporate governance, please refer to the "Report on Corporate Governance."  
URL : <http://www.shinetsu.co.jp/j/profile/cg.shtml> (Japanese only)

■ Compliance ■

Through the concerted efforts of the Company and all directors and employees, we are trying to ensure the establishment of a thorough and comprehensive system for compliance.

The Shin-Etsu Group believes that its obligation to comply with laws and regulations in its business activities, and always includes compliance in its periodical managerial objectives.

**Thoroughgoing Awareness of Compliance**

In cases where legal statutes concerning corporate activities are newly established or revised, the Legal Department leads efforts to notify all employees throughout the Shin-Etsu Group and conducts explanatory meetings. In the event that illegal activities are discovered at other companies, reminder notices are transmitted throughout the Group, with the intention of continually raising awareness of compliance issues.

**Compliance Pledge**

A Compliance Pledge has been introduced, to be taken by Company directors and employees, all of whom pledge to conduct their daily business activities in the spirit of compliance. Anyone who violates the Pledge is severely punished.

**Compliance Consultation Office**

We have set up a Compliance Consultation Office, whose role is to support every staff member of the Shin-Etsu Group in conducting their business activities in strict compliance with all laws, government regulations and in-company rules.

This office strictly protects the privacy of all those who use it, ensures that they are not subjected to any disadvantages, investigates all information obtained from consultations and formulates appropriate countermeasures. Under the Compliance Consultation and Notification Regulations, no one using the Office may be disadvantaged in any way or lose their job because of any consultation or notification.

**Information Management System**

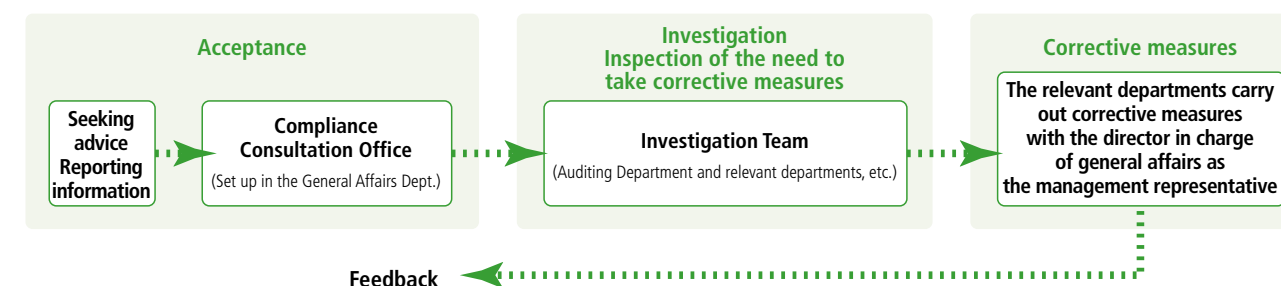
The Company has developed a fundamental policy concerning information security to ensure the confidentiality, safety and stability of its information assets and prevent the leakage of important information concerning our customers and business partners. We are constructing an information asset management system, have appointed an officer responsible for information control, and are striving to manage its information in accordance with established information management regulations and standards.

**Protection of Personal Information**

In relation to the "law regarding the protection of personal information" and in order to properly protect personal information, we have established a personal information protection policy, which is available on our website\*. Moreover, we hold explanatory meetings within the Group related to compliance with all relevant laws, and are making exhaustive efforts related to the appropriate handling and protection of personal information.

\* Personal Information Protection Policy:  
URL: <http://www.shinetsu.co.jp/about/hogo.shtml> (Japanese only)

● Flow of Seeking Advice or Reporting Information on Compliance



■ CSR Promotion System/Environmental Management Promotion System ■

By revisiting the very basis of Corporate Social Responsibility, we are now approaching CSR activities with a new outlook.

**CSR Promotion System**

Since fiscal 2005, we have promoted various CSR activities by establishing the position of Officer Responsible for CSR and setting up the CSR Promotion Committee.

Based on the acknowledgment that "CSR is itself a corporate activity," the CSR Promotion Committee reviews the actions undertaken by Shin-Etsu at a corporate level and ensures that any positive aspects are retained while any points needing to be improved are rectified, and continues to support those activities that can further enhance the corporate value of the Shin-Etsu Group.

To further promote and develop CSR Activities at a Group level, the Committee has made special efforts to assess the status of the promotion of CSR activities in the Group companies, both in Japan and abroad, and has focused on improving the promotion system for Shin-Etsu, which is seen as the core of promotion activities.

The Group will keep working on CSR promotion activities while revisiting the original question of just what is the social responsibility of a corporate body.

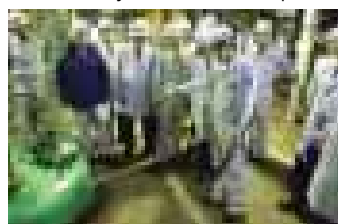
**Environmental Management Promotion System**

To promote environmental management, we are addressing specific problems related to environmental protection via the Shin-Etsu Group Environment Control and Safety Meeting, chaired by the officer responsible for environmental control and safety. With the participation of those persons in charge of environment and safety, the Shin-Etsu Group Environment Control and Safety Meeting addresses environmental protection and safety issues affecting the Group as a whole. As for Environmental Control and Safety Guidelines and Safety and Health Guidelines, the Environmental Control and Safety Department of the head office has compiled all the required guidelines and is in charge of their promotion and further development.

The Environmental Control and Safety Departments at each plant and business establishment are providing support for the manufacturing departments and performing public relation activities in association with local governments, related governmental offices and industrial organizations, etc.

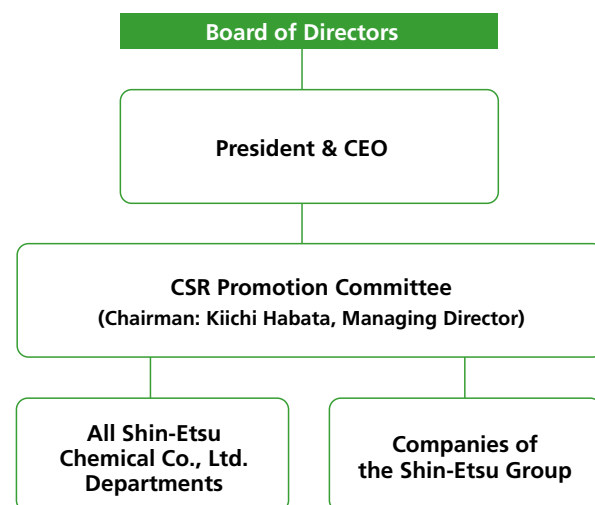
**Environment Control and Safety Audits**

Regular environment and safety audits and special audits with specific themes are performed and verified in accordance with the activities of all environmental and safety assurance operations.

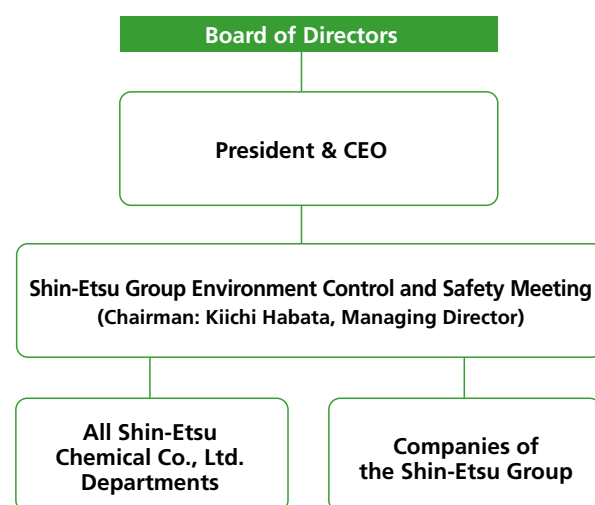


Special environment control and safety audit (conducted at Gunma Complex, in December 2008)

● Shin-Etsu Group CSR Promotion System



● Shin-Etsu Group Environmental Management Promotion System

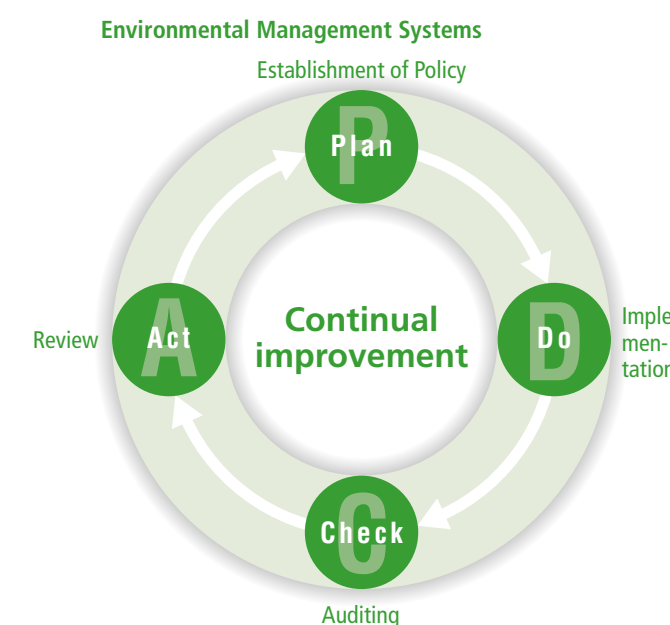


■ Environmental Charter ■

We will keep pursuing *safety and environmental protection-first* as the basis of our management, and continue to contribute to the establishment of a sustainable society.

The Shin-Etsu Group conducts its business activities with *safety and environmental protection-first* as its basic corporate philosophy. We place a high priority on technological developments capable of contributing to the reduction of environmental impact, and conduct thorough environmental management at all stages, from the design of products and manufacturing facilities through to the creation of an efficient manufacturing system.

We strive to achieve the above goals by establishing objectives in each business and unit based on the Environmental Charter. We will continue to pursue *safety and environmental protection-first* and implement environmental initiatives contributing to the construction of a sustainable society.



**Environmental Charter**

**I. Fundamental Principle**

The Shin-Etsu Group recognizes that global environmental protection is one of the most important issues facing humankind. We believe in the fundamental principle of pursuing environmental protection in every aspect of our business activities as we aim to help create a society in which the issue of global warming can be effectively addressed and sustainable development is possible.

**II. Action Guidelines**

- 1 We strive to accurately anticipate any effects that our business activities might have on the environment, and we comprehensively implement policies focused on the strict control of chemical substances, conservation of resources and energy, recycling of materials and reduction of waste products. We endeavor to continually improve the local, regional and global environment.
- 2 We fully comply with national and international laws, regulations, and agreements related to the environment. Moreover, we also strive to prevent environmental pollution and work together with local societies to achieve this goal.
- 3 In developing new products and technologies, we aim at minimizing any adverse environmental effects from the fundamental research and design phases through to the manufacturing, distribution, usage, and disposal phases.
- 4 By means of Group company training programs and internal communications regarding environmental protection, we strive to raise the consciousness of all employees about environmental matters. Furthermore, with deep regard for the local, regional and global environment, we promote a wide range of environmental protection activities.
- 5 To promote environmental protection activities, we organize to effectively carry out environmental management activities.

■ Shin-Etsu's Core Environmental and Safety Principles ■

## Shin-Etsu's core principles of 'Safety and Environmental Protection-First'

The Shin-Etsu Group is making strenuous efforts to effectively put in place safety measures that take all possible accidents or disasters into account

The Shin-Etsu Group has been carrying out security and safety management at its plants guided by Shin-Etsu's basic management policy of putting *Safety and Environmental Protection-First* as its most crucial management objective. The Company deeply regrets the accident that occurred at the Naoetsu Plant in 2007, and the Company and all Group affiliates have taken extensive steps in the two years since the accident to increase the safety of our all processes and operation method. In the first year, all elements were identified that could present the danger of explosion in the Company's raw materials and products, and necessary measures were taken. In the second year, a comprehensive review was conducted by applying the hazard and operability study (HAZOP) method, to evaluate potential hazards of all of the Company's facilities, processes, and operations, and measures were implemented to eliminate or prevent identified dangers. With these countermeasures, we believe that safety has been greatly improved.

Moreover, we are seriously undertaking the activities of gathering and analyzing information about close-call incidents and safety measures, and we have received many safety improvement suggestions from employees at our plants. To make sure that the suggestions that we are continuously receiving are immediately and effectively utilized for the improvement of worksite safety by means of implementing them for the actual production processes and work within the entire Shin-Etsu Group, we have established a registration and access system for these suggestions on Shin-Etsu's Intranet, which speeds up the sharing of information and disclosures.

We are implementing measures aimed at creating safer worksites in parallel with carrying out risk evaluations of plant and work processes.

For many years, we have strengthened our systems for dealing with large-scale earthquakes by such means as establishing a system to speed up information transmission through having multiple communication channels, carrying out reconfirmation and reinforcement work for each plant's earthquake-resistance strength, and connecting each plant's safety shut-down system with an earthquake recorder, a seismic instrument that continually monitors the Earth's crust vibration levels.

We are going ahead with new earthquake countermeasures and safety and disaster prevention measures based on the BCM (business continuity management) planning concept, which involves a back-up system to protect all essential company information.

**Measures in response to the REACH European Community Regulation on safe use of chemicals**  
*From risk to business opportunity*

The Company has completed the preliminary registration of substances in accordance with REACH (Registration, Evaluation,

Authorization and restriction of Chemicals) Regulations, and on December 1, 2008, commenced preparations for official registration.

REACH is a new regulation to require the better and earlier identification of the intrinsic properties of chemicals that are distributed in European Community. Under REACH, chemical manufacturers are required to make safety evaluations, including the gathering of information on the properties of all the chemicals they use and manufacture and their safe handling, and to register this information in a central database. As a chemical manufacturer Shin-Etsu is making strong efforts throughout the Shin-Etsu Group to sincerely comply with the REACH Regulation.

In line with the REACH regulation, if we make a mistake of omission with regard to taking the necessary steps stipulated by that new law, it could become a grave management risk. Shin-Etsu has established a Risk Management Committee that is taking charge of all matters related to risk management. By strengthening our relationships with supply chains and promoting the sharing of information, we would like to make use of our response to the REACH Regulation to create new business opportunities.

**By achieving our mid-term environmental goals, we will fulfill our responsibility and role as a member of society**

As medium-term environmental objectives, the Shin-Etsu Group has laid out two objectives:

- 1) A reduction in greenhouse gas emissions to 66% of the 1990 level in terms of the energy consumption rate in 2010.
- 2) Achievement of zero emissions (buried waste under 1%) in 2010.

We are proactively installing co-generation facilities to reduce greenhouse gas emissions and promoting the efficiency of existing processes to improve our energy consumption unit of output so as to work toward the achievement of our medium-term environmental objective of realizing in 2010 a reduction of 66% of the emission level of 1990. With regard to the latter goal — reducing, reusing and recycling of waste generated in the production process — our efforts to achieve zero waste emissions are going smoothly. We are totally focused on making sure to achieve our medium-term environmental objectives.

The Shin-Etsu Group will do its part by fulfilling our responsibility and role as a member of society.



**Kiichi Habata**

Managing Director in charge of Environment Control and Safety  
Shin-Etsu Chemical Co., Ltd.

## Challenges and Results of Shin-Etsu Chemical in Fiscal 2008

In fiscal 2008, it was the priority for Shin-Etsu Chemical Co., Ltd. to carry out activities aiming the achievement of its mid-term environmental goals while attaining zero environmental accidents. At the same time, we conducted Responsible Care (RC) Initiative Verifications and took actions to correct items pointed out by the inspectors.

Medium-Term  
Environmental  
Objectives

- A reduction in greenhouse gas emissions to 66% of the 1990 level in terms of the energy consumption rate in 2010.
- Achievement of zero emissions (buried waste under 1%) in 2010.

There were two accidental fires on Shin-Etsu Chemical property in fiscal 2008. We immediately investigated the causes of these accidents, and implemented measures to prevent their reoccurrence. There were no environment accidents during fiscal 2008. The volume of greenhouse gas emissions per unit energy consumption, the reduction of which is one of our mid-term environmental goals, was 74% of its 1990 level. However, this was a 5% increase from their 2007 level. As for zero emission objectives, the amount of buried waste was increased to 1.2% and we did not achieve zero emissions for four consecutive years.

### Verification of RC Activities

Shin-Etsu Chemical strives to maintain safety and preserve the environment according to our management policy *safety and environmental protection-first*. As part of our efforts, we have been promoting Responsible Care (RC) activities since 1995, which are participated in by chemical companies worldwide. RC activities are voluntary management activities by the chemical industry to protect the environment, safety and health. Environmental preservation, process safety and disaster

prevention, occupational health and safety, chemical and product safety, distribution safety and communication with the community are included in RC activities.

Because of the voluntary nature, we felt the necessity for third-party assessment of our RC activities, and underwent inspections by outside inspectors in addition to in-house audits on the PDCA of RC activities, continuing such activities from fiscal 2006.

In September 2008, inspections covering occupational health and safety and process safety and disaster prevention were conducted at the Gunma Complex and the Kashima Plant. Results were as follows.

- It was recognized that the selection reason of important issues was appropriate. It was anticipated that the segregation of roles would be defined in specifying and prioritizing important issues. The separation of daily management plan and policy management plan was also expected in prioritizing important issues.
- It was recognized that Shin-Etsu regarded lateral spread of lessons from accidents as the place for employee education and training, and the Company provided them to large numbers of employees.
- It was recognized that photographs were utilized for safety patrol so that anyone could understand identification points.
- It was recognized that the risk assessment was taken by appropriate people who well understood risk. The risk assessment was implemented at a high level especially for rolling and placing accidents.
- The introduction of an index around the number of outages, plant closures, and lost time was anticipated because of no index for the evaluation of safety and accident prevention levels.
- It was recommended that such methods of accident analysis as "4M analysis" and "why why analysis" would be adopted because it seemed that Shin-Etsu was weak in analyzing the causes of accidents.
- It was recognized that the firemen, ward mayors, police and fire department in the local community attended to the Company's safety training and then the Company hear their comments.

These results will surely be fed back to our RC activities. We will continue holding such inspections in the future, and outside inspections will be extended to other plants and inspection items.

**Shin-Etsu Chemical's Tasks for Fiscal 2009**

1. Through accident instruction at the Naoetsu Plant, prevent recurrence of accidents and fire damage.
2. Strive to achieve medium-term objectives in 2010.
  - (1) The Company will also strive to reduce the volume of its greenhouse gas emissions per unit energy consumption through the re-evaluation and improvement of processes, and by continuing to upgrade to high-efficiency machinery.
  - (2) Assurance of 3R (reduce, reuse and recycle) in our efforts to sustain zero emissions (buried waste under 1%).

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Shin-Etsu Chemical Environmental and Social Report 2009 14



■ Emergency Response and Safety Measures ■

To ensure the safety and security of local residents and employees by taking every possible measure to keep the workplace safe and prevent accidents.

Ensuring the safety and security of local people and improving the environment where our employees can work in safety every day is our duty as a corporate entity. We have therefore established ensuring safety and environmental protection as mutually inseparable, top-priority components of the basic guidelines used for all our business practices.

The Shin-Etsu Group handles and manufactures a variety of chemical substances as raw materials. Although the chemicals we handle are useful to society, some of them are, by their very nature, also harmful to human health. For that reason, the Group abides by all laws and regulations regarding chemicals, making all necessary efforts to prevent outside pollution and enforcing appropriate controls.

**Emergency Response System**

As the Shin-Etsu Group handles many kinds of chemicals, there is the possibility of a large-scale disaster occurring and involving both employees and local people in the event of an accident. In preparation for the possibility of such an accident, disaster or large-scale earthquake, we have arranged a Companywide emergency response system and established relevant procedures. We also verify the efficiency of our response procedures by performing regular drills.

As well as the accident and disaster drills carried out in each plant and business establishment, divisional drills are practiced for fires caused by explosions and for leaks of dangerous materials. All necessary equipment and materials are also prepared in the event of an accident taking place outside the Company's premises, such as during transportation. Above all, in consideration of recent accidents in Japan and abroad, we have strengthened our response capabilities for emergency situations as follows:

- Establishment of emergency communication systems (inside the Company, in conjunction with public agencies such as fire departments and in collaboration with the local community)
- Quantitative assessment of disasters using simulations
- Improvement and reinforcement of equipment and materials for emergency measures (including providing support for people outside the company)
- Execution of plantwide and divisional drills based on specific accident scenarios
- Provision of and education on the use of Yellow Cards (in response to accidents occurring during transportation)
- Implementation of Container Yellow Cards



Discharging bubbles of fire-fighting drills (Takefu Plant, October 2008)



First-aid training lecture (Kashima Plant, November 2008)

**Safety Measures for Chemical Substances**

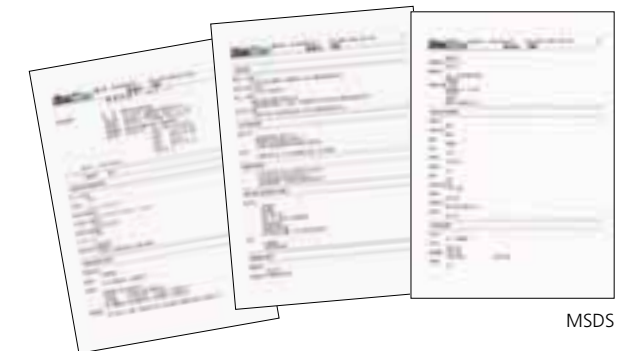
The Shin-Etsu Group handles, manufactures and sells a variety of chemical substances, including many hazardous substances, which are flammable, explosive, toxic, poisonous or corrosive. Such dangerous substances should be handled according to their properties, and strict observation of the handling rules represents the basics of safety measures. These hazardous substances are regulated by laws and regulations. Compliance with such legislation is a means of implementing safety measures.

We issue MSDS\*1 for each of the hazardous chemical substances. When these hazardous materials are handled in the plant, observing the MSDS is to keep employees' safety, and prevent mechanical failure and accidents in facilities. An MSDS is created for each product provided to customers. Accordingly, the MSDS is also used to ensure the safety by the customer.

Ensuring safety during transportation is also required. The Shin-Etsu Group issues a Yellow Card\*2 for bulk transportation, or a Container Yellow Card\*3 for the transportation of small quantities of chemicals. Further, the GHS\*4 labeling system was introduced to ensure the Group complies with protocols arising from revisions to the Labor Safety and Sanitation Law in December 2006.

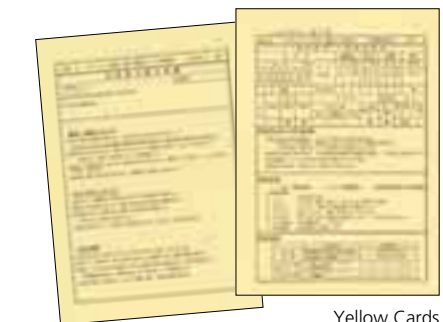
The Shin-Etsu Group reports the amount of atmospheric emissions of chemical substances we handle in accordance with the PRTR Law\*5. At the same time, we strive to reduce emissions, and make our utmost efforts to develop less hazardous materials. In developing and manufacturing Small Amount of New Specific Chemical Substances\*6 or New Specific Chemical Substances\*7, we make sure of safety and submit notifications in accordance with the Law concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.\*8.

\*1 MSDS: MSDS stands for Material Safety Data Sheet, on which all relevant data concerning the chemical in question is described in order to handle chemicals safely and prevent any accident from occurring. When a business operator delivers chemicals or products containing chemicals to another business operator, the MSDS must be attached.



MSDS

\*2 Yellow Cards: The cards on which all relevant information on treatment required in case of an accident during transportation is described. These are prepared in the interests of safety and handed over to the carrier whenever chemicals are transported and retained by the carrier throughout delivery.



Yellow Cards

\*3 Container Yellow Cards: A label indicating safety information is attached to every container when transporting small quantities of chemicals individually or with other items. Information requirements are internationally accorded.

\*4 GHS (The Globally Harmonized System of Classification and Labeling of Chemicals): This internationally accorded system addresses the classification of chemicals by type of hazard, in accordance with labels and safety data sheets.

\*5 PRTR Law (Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management): Promulgated on July 13, 1999, the law is intended to promote improvements in the voluntary management of chemical substances by businesses and prevent impediments to environmental protection, based on different ideas from existing environmental laws.

\*6 Small Amount of New Specific Chemical Substances: The notification of new chemical substances is obligatory under the two below-mentioned laws, regardless of the amount manufactured or handled.

\*7 New Specific Chemical Substances: The Law Concerning the Examination and Regulation of Manufacture, etc., of Chemical Substances and the Labor Safety and Sanitation Law establish reporting duties with respect to new specific chemical substances.

\*8 Law Concerning the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.: A law concerning examination and regulation of manufacture and other aspects of chemical substances.

**Safety Measures for Facilities**

The Shin-Etsu Group's factories use various types of machines and facilities for a host of purposes, including production, environmental conservation, utilities and distribution. Operating this equipment requires a substantial amount of energy. We also employ facilities that process hazardous and toxic materials, operate at high pressures, and certain equipment sustains extremely hot or cold temperatures during operation.

The machines and facilities in factories ease the labor of workers, but are potentially dangerous, as suggested above. A significant number of people were injured in the March 2007 Naoetsu Plant accident, with extensive impact on residents of the local community. Our safety measures for machines and facilities are therefore focused on identifying the risk factors in advance to minimize the risks of an accident.

A number of techniques are available to identify risk factors, but HAZOP\* is typically used in chemical plants. The most effective plans are proposed for the risk factors identified with various techniques, and the safety review board, including factory managers in its members, investigates and approves the proposed safety plans. The plans are then presented to all Group companies for their approval and put into practice.

Because of the seriousness of the potential damage caused by accidents in factory machines or facilities, adequate preparedness for accidents is very important. Emergency drills are conducted at individual sections and across plants, in addition to damage simulation to predict the scope of damage, preparation of equipment for dealing with accidents, and implementation of an emergency communication system.

\* HAZOP (Hazard and Operability Study): HAZOP is designed to facilitate improvement in work procedures and facilities by anticipating potential malfunctions in manufacturing facilities and the resultant environmental pollution brought about by changes in operating conditions. HAZOP is conducted whenever a new facility is at the design stage, and is implemented by the designers and managers to ensure that a high degree of safety is designed into the facility right from the start. Existing facilities are also subject to HAZOP, in which their operators participate, and this is reflected in the improvements made to operating procedures and facilities.

**Response to REACH**

REACH\* is a new European Union Regulation on chemical substances, which was enacted in June 2007. Preliminary registration opened from June 1, 2008. Under the REACH directive, parties that manufacture in or import into the EU substances to a volume of one ton or more are obliged to complete registration procedures, in a process comprising registration, notification, approval and restriction.

Specifically, substances, preparations, molded parts and other components relating to the chemicals contained in products are subject to registration and notification procedures. Further, for the protection of health and the environment, the use and handling (including production, processing, assembly, transfer, and handling by general consumers) within the EU of chemical substances and the products in which they are used are subject to approval and restriction regulations.

Information on dangers and hazards posed by chemical substances must be provided to customers in the form of a safety data sheet. Further, data must be collected on customers' uses and volumes handled. As a result, Shin-Etsu Chemical requires the cooperation of all Group members and related parties throughout the supply chain in the processing and sharing of information.

Based on the cooperation of all operating and related divisions, the Shin-Etsu Group is deliberately and actively striving to realize its response to REACH as it progresses with the clarification of target substances and processing of information.

\* REACH: The Registration, Evaluation, Authorization and Restriction of Chemical substances

**Promoting CSR Procurement**

Shin-Etsu Chemical's CSR Procurement Basic Policy is posted on the Company website. It covers materials required for manufacturing processes, including main raw materials and secondary materials such as packaging materials, and machinery and equipment.

Specifically, the policy promotes green procurement and publicizes legal compliance and the need to manage chemical substances subject to environmental regulations to our business partners. In the future, we will prioritize procurement from business partners that are aggressively pursuing CSR activities, including environmental protection measures.

In addition, a processing investigation is carried out on the environmental burden load of purchased materials.

**Responding to CSR Procurement Requirements**

The RoHS directive was enacted in the EU in July 2006. Further, REACH has also been in force since June 1, 2007. Similar laws on the management of chemical substances have been formulated in other countries, too, calling for information management throughout the supply chain to ensure supply of appropriately controlled products. In response to these advances, we are providing many customers with chemical substance management certification, verifying the contents of our products.

The Shin-Etsu Group, as a materials manufacturer, supplies an array of products to customers that in turn require us to issue certification documents. As part of our CSR procurement activities, we are increasing the number of Green Procurement Certificates we issue year on year, reaching 9,749 for Fiscal Year 2008.

**Control of Food Additives and Pharmaceutical Products**

Cellulose and silicone are key materials used in certain food additives and pharmaceuticals. As these products are directly related to human health, the Group pays close attention to their quality control and compliance with all relevant laws and regulations.

**Safety Measures for Employees**

The Shin-Etsu Group implements a range of measures for the safety of its staff. The basis of our measures for the safety of employees in the course of their activities is recognition that people do make mistakes. From this standpoint, our safety measures span enhancing intrinsic safety of facilities and processes as error prevention measures, boosting safety through interlocks and alarm systems to limit the consequences in the eventuality of an error occurring, and implementing revisions and

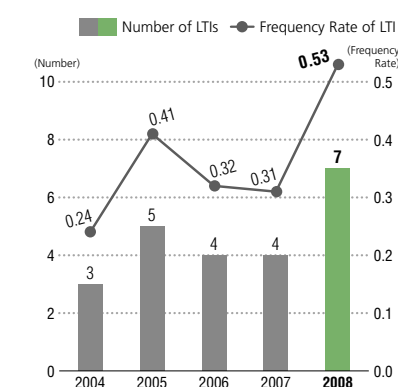
improvements.

We use various machines and facilities in our manufacturing factories to process a variety of chemical substances. Tangible safety measures are taken for these machines and facilities. We also focus on the intangible aspects, such as education on the correct operation of the machines and facilities. Workers are educated on the purpose and effect of protective gear and repeatedly told to wear it. We have launched a scheme for the promotion of zero accidents, and introduced risk prediction training, potentially serious error proposals, prevention, risk assessment, and hazard experience training have been carried out on all Group company sites.

The work environment is continuously improved in our effort to maintain the health of workers, and the density of substances handled at workplaces is measured to ensure it is within the control level. The installation of local exhaust systems and changes to substances less harmful to workers are also promoted.

Throughout the Shin-Etsu Group there were 16 injuries in total, 7 LTIs and 9 Non-LTIs during 2008. Most injuries arose from being pinched or caught in machinery or other wounds sustained or lumbago in the course of activity. We promote the "intangible" safety measures given above.

**Change in the Number of LTIs and Frequency Rate in the Shin-Etsu Group**



■ Reducing the Environmental Impact of Business Activities Input/Output ■

As a key material manufacturer, we aim to reduce environmental impact, not only for our own benefit but also for that of the whole society, by developing advanced technologies.

The Shin-Etsu Group intends to implement a management environment to reduce environmental impact and risks and increase energy efficiency via its own business activities. At the same time, our mission is to offer new materials that can contribute to reducing environmental loads and increasing energy efficiency across society, through the development of advanced technologies as a leading material manufacturer.



Notes: The numbers are a total of 11 companies: Shin-Etsu Chemical Co., Ltd., Shin-Etsu Handotai Co., Ltd., Nagano Electronics Industrial Co., Ltd., Naoetsu Electronics Co., Ltd., Mimasu Semiconductor Industry Co., Ltd., Shin-Etsu Quartz Products Co., Ltd., Yamagata Shin-Etsu Quartz Co., Ltd., Fukui Shin-Etsu Quartz Co., Ltd., Nissin Chemical Industry, JAPAN VAM & POVAL CO., LTD. and Shinano Electric Refining Co., Ltd in fiscal 2008. Please refer to Shin-Etsu Chemical's website, at <http://www.shinetsu.co.jp/e/profile/kankyo.shtml> for environmental data on Shin-Etsu Group companies

Environmental Activity Report

The Group is addressing all issues that are relevant to realizing energy saving and preventing global warming, including reducing the environmental impact, protecting the environment and recycling resources.

Energy Saving and the Prevention of Global Warming

Reduction of energy usage

The Shin-Etsu Group manufactures a variety of products handling a range of energy sources, including electricity, fuel oil, kerosene, diesel oil, liquefied petroleum gas, liquefied natural gas and steam. We select the most suitable energies for manufacturing facilities and utilities used in such processes as reaction, purified, synthetics, processing.

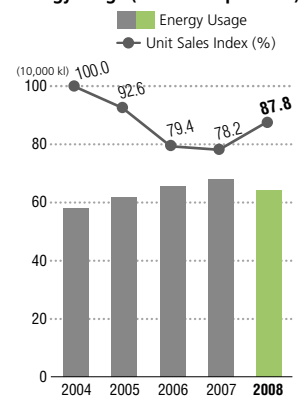
Although overall energy usage is growing, owing to increased Group-wide production, each company and plant also strives to save energy.

Examples of our approach

- Extensive use of co-generation systems
- Improvements in energy saving by facility: Improved efficiency, productivity, insulation, etc.
- Recovering heat from waste

The Shin-Etsu Group consumed 38,000 kiloliters less energy in fiscal 2008 than the previous fiscal year, reducing total usage to 642,000 kiloliters (crude oil equivalent). Energy consumption per unit of sales, however, underperformed fiscal 2007 as total sales fell due to the global economic recession, despite the efforts of every Group company to conserve energy. Even so, per-unit consumption was 12% lower than in fiscal 2004.

Energy Usage (crude oil equivalent)



Prevention of global warming and pollution abatement measures

The Shin-Etsu Group is trying to reduce greenhouse gases to stop global warming. We are also working to minimize discharged air pollutants through pollution abatement measures.

CO<sub>2</sub> emissions have risen as our energy use increases, but every company and plant is making an effort to

reduce CO<sub>2</sub> emissions. Some of our affiliates use a specific CFC as a refrigerant, but this substance is strictly managed so as not to be released in the air. The Group regularly monitors air pollutants, including soot, nitrogen oxide (NOx), and sulfur oxide (SOx), keeping a careful eye on the effects on atmosphere. In fiscal 2008, soot was held to existing levels, however, NOx emissions increased due to substantial growth in products requiring combustion during the manufacturing process. SOx emissions were considerably reduced owing to the conversion from heavy fuel oil to natural gas at some facilities. All of these emissions were within Japanese regulatory limits for air pollutants from boilers and incinerators.

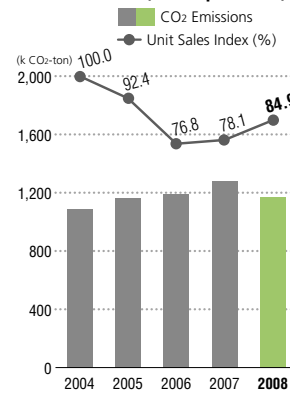
Examples of our approach

- Promotion of energy saving by introducing co-generation systems, etc.
- Switch to fuels, such as liquefied natural gas, with less CO<sub>2</sub> and air pollutant emissions
- Addition of a pollutant treatment facility and installation of a recovery facility
- Improvement of the combustion method

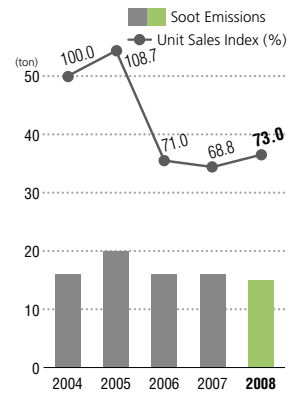
In fiscal 2008, carbon dioxide emissions from energy used by the Shin-Etsu Group were 100,000 tons lower than the previous fiscal year, bringing the total down to 1.18 million tons (CO<sub>2</sub> equivalent). Emissions per unit of sales, however, were higher due to the decline in total sales. Nevertheless, per-unit emissions were 12% lower than in fiscal 2004.

Soot emissions totaled 15 tons. Although emissions vary slightly each year, the overall trend shows a steady reduction. NOx emissions stood at 770 tons, an increase of 110 tons compared to fiscal 2007. SOx emissions amounted to 320 tons, a dramatic reduction of 480 tons from fiscal 2007.

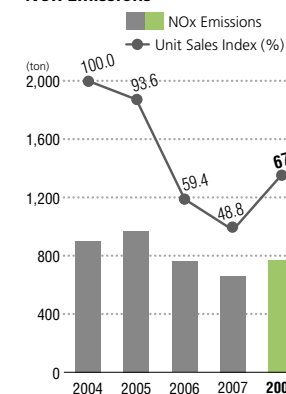
CO<sub>2</sub> Emissions (CO<sub>2</sub> equivalent)



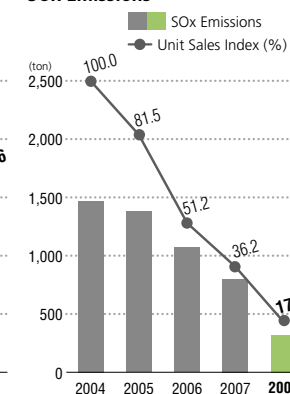
Soot Emissions



NOx Emissions



SOx Emissions



Boiler Emission Gas Monitoring Result Table: Naoetsu Plant

	Regulation value	2004	2005	2006	2007	2008
Soot (g/Nm <sup>3</sup> )	<0.25	<0.02	<0.03	<0.01	<0.01	<0.01
NOx (ppm)	<150	<83	<110	<99	<88	<98
SOx (k value)	<74	<1.2	<2.6	<0.1	<0.1	<0.016

Incinerator Emission Gas Monitoring Result Table: Gunma Complex

	Regulation value	2004	2005	2006	2007	2008
Soot (g/Nm <sup>3</sup> )	<0.15	<0.01	<0.02	<0.004	<0.003	<0.004
NOx (ppm)	<250	<100	<110	<62	<55	<92
SOx (k value)	<17.5	<0.55	<0.51	<0.47	<1.03	<1.87
Hydrogen chloride (mg/Nm <sup>3</sup> )	<700	<28	<62	<24	<51	<27
Dioxin (ng/Nm <sup>3</sup> )	<5	<0.01	<0.01	<0.01	<0.01	<0.001

\* SOx adjusts the unit value (k value) based on the Air Pollution Control Act in the report.

Prevention of water pollution

The Shin-Etsu Group uses large quantities of industrial water, groundwater and tap water for manufacturing and cleaning products, and maintaining and managing facilities. Wastewater is discharged into rivers after being checked for compliance with laws and regulations specifying the limits. pH<sup>\*1</sup>, BOD<sup>\*2</sup>, SS<sup>\*3</sup> and COD<sup>\*4</sup> are measured on a regular basis to monitor their effects on water quality. We are also trying to reduce our use of water.

Examples of our approach

- Improvement and expansion of wastewater treatment equipment
- Leveling of effluent water quality and volume
- Recycling and reuse of cooling water

Total drainage discharged by the Shin-Etsu Group was 41,000 kilotons in fiscal 2008, down 480 kilotons from fiscal 2007. Per unit of sales, wastewater discharged was up 13% from fiscal 2007 due to the decline in total sales, however, it was still 12% lower than in fiscal 2004. COD emissions were down 90 tons from fiscal 2007, for a total of 610 tons. Per unit of sales, this represents an increase of 2%.

\*1 pH: Hydrogen ion concentration (-log[H<sup>+</sup>]) indicating acidity (<pH7), neutrality (=pH7) and alkalinity (>pH7) of water solution.

\*2 BOD: Biochemical Oxygen Demand (BOD): This indicates the amount of oxygen required for water-borne micro-organisms to break down contaminants in water. This value is a measure of the degree of water pollution.

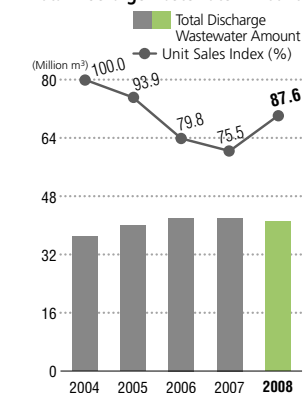
\*3 SS: Suspended Solids (SS): These are organic and mineral particles suspended in water. They are a major cause of turbidity, and have a significant impact on aquatic life.

\*4 COD: Chemical Oxygen Demand (COD): This is the amount of oxygen required to degrade the organic compounds of wastewater. A higher COD value means more polluted wastewater.

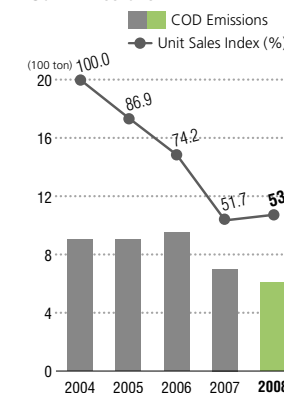
Effluent Water Quality Monitoring: Gunma Complex

	Regulation value	2004	2005	2006	2007	2008
pH	5.8-8.6	6.7-7.4	6.3-7.5	6.4-7.8	6.3-7.4	6.0-7.5
BOD (mg/L)	<25.0	<17.0	<14.0	<25.0	<21.0	<25.0
SS (mg/L)	<50.0	<43.0	<38.0	<31.0	<32.0	<41.0

Total Discharge Wastewater Amount



COD Emissions



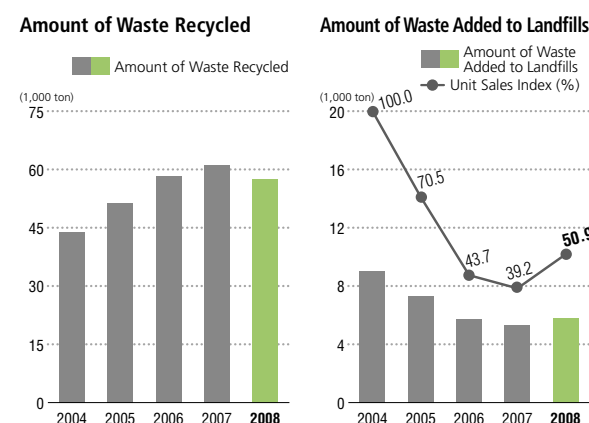
Waste management

Various types of waste, including unreacted raw materials, byproducts, defective products and broken or unnecessary goods, are produced in various manufacturing processes. The Shin-Etsu Group applies the 3Rs (reduce, reuse, and recycle) to ensure effective use of the Earth's limited resources. We also periodically inspect contractors to ensure the proper handling of waste consigned to them.

**Examples of our approach**

- Utilization of inorganic sludge as a raw material for cement/steel
- Utilization of organic sludge as a fertilizer
- Reuse of acids and alkalis through separate recovery
- Thermal recycling of waste oil and waste solvent
- In-house incineration, in-house disposal
- Separate recycling of valuable metals

The amount of waste recycled by the Shin-Etsu Group in fiscal 2008 totaled 57,600 tons, down 4,600 tons from fiscal 2007, and recycling proceeds satisfactorily. The amount of waste added to landfills was 5,800 tons. Emissions per unit of sales improved 49% from fiscal 2004.



**Other Environmental Protection Activities**

In fiscal 2008, the Shin-Etsu Group experienced two facility accidents.

**Facility accidents**

Two fire-related incidents occurred in fiscal 2008. The first incident was an occurrence of smoke caused by a spark emitted while cutting down metal with a cutting torch during the dismantling and removal of a building. When the smoke was detected, the operation was immediately halted and all remaining flammable material was removed from the premises. The second incident was a fire caused by an overheated electrical cable that was improperly connected during electrical work inside the warehouse. The Company subsequently took steps to make work orders and procedures more explicit and make it a rule for work supervisors to confirm that work orders are fully and properly completed. These incidents did not discharge any abnormal substances, and there was no impact on the surrounding environment.

**Soil pollution**

At each of our plants, ground water and soil quality are monitored and the pollution status is checked.

However, no soil pollution has yet been identified at any of our plants.

**Education on the environment and safety**

Environmental conservation and accident prevention require both correct responses at the facility level and effective actions by all personnel involved. Therefore, we organize many training sessions regarding environmental and safety operations. We also conduct safety education, virtual education simulating experiences of danger, environmental education and education on chemical handling to prevent accidents.

Furthermore, we regularly carry out education and training sessions for employees at various levels and job descriptions.

**Examples of safety and environmental education**

- Education of new employees, transferred personnel and newly appointed managers
- RST education (Article 60 of the Labor Safety and Sanitation Law, "Safety and health education for foremen and others")
- Hazard prediction training, risk assessment training
- Experiments and training on combustion and explosions, low voltage electricity handling training and chemical substance handling training
- Experience training, maintenance training
- Environmental Management System (ISO 14001) education, etc.

**Safety and environment qualifications**

Many different machines and facilities are used for our manufacturing activities. Education and training sessions are therefore organized to cover the operation and management of all equipment and machinery.

When legal qualifications are required, personnel acquire the relevant qualifications and attend appropriate technical training.

**Examples of legal qualifications regarding safety and the environment**

- High pressure gas production safety controller (High Pressure Gas Safety Law)
- Pollution control manager (Law Concerning the Improvement of Pollution Prevention Systems in Specific Factories)
- Hazardous materials engineer (Fire Service Law)
- Health supervisor (Labor Safety and Sanitation Law)
- Operations chief for various operations (as set down in the rules of the Labor Safety and Sanitation Law)
- Specially controlled industrial waste control manager (Waste Disposal and Public Cleansing Law,) etc.

**Training**

Although we are fully prepared for accident and disaster prevention, accidents cannot be completely ruled out. We therefore conduct emergency response training to prevent the spread of any damage and promptly diffuse the situation in the eventuality of an accident. Apart from the training carried out at each workplace, we organize general drills assuming that a large-scale accident or disaster has occurred. We hold such drills in cooperation with local fire departments, if necessary, and open them to the public.

**Environmental activities at the industry level**

Shin-Etsu Chemical participates in such associations as the Japan Chemical Industry Association, the Vinyl Environmental Council and the Plastic Waste Management Institute. Moreover, we strive to improve

the safety management and environmental control levels of each of our companies and cooperate with other industry member companies. We also undertake public relations activities to research and enhance the understanding of chemical substances and provide technical support.

**Examples of environmental activities undertaken in cooperation with the industry**

- Activities to reduce air pollutants and volatile organic compounds
- Support of the Long-range Research Initiative (LRI)
- Introduction to the benefits of PVC and promotion of PVC recycling
- Support for waste plastics recycling

**Environmental Accounting**

In fiscal 2007, Shin-Etsu Chemical calculated its investments and expenditures on reducing the environmental impact from such factors as air pollution, water pollution, the emission of chemical substances into the air, saving energy to conserve the global environment, reducing waste by improving resource recycling and recycling used goods. The company computed this amount in accordance with the Environmental Accounting Guidelines prepared by the Ministry of the Environment, Japan.

The Company's cumulative capital investment related to environmental protection over the past decade came to approximately ¥19.5 billion.

**Main investments**

- Introduction of a cogeneration facility and an energy recovering facility
- With an increase in productivity, implementation of energy-saving
- Strengthen energy loss prevention
- Expansion of wastewater treatment equipment
- Installation of Raw materials, etc. collection processing equipment and waste disposal and recovery facilities
- Improvement of dust collecting facilities
- Improvement of the industrial waste disposal yard
- Environmental improvement, etc., of areas around other plants

**Environmental Costs in Fiscal 2008**

Category	Details	(Millions of yen)	
		Investment	Expenditure
Business area costs:			
1. Pollution prevention costs	Air, water, noise and other types of pollution prevention measures	1,174	4,252
2. Global environment conservation costs	Energy conservation and global warming prevention measures	1,434	1,591
3. Resource circulation costs	Waste prevention, recycling and other measures	219	1,395
Upstream and downstream costs	Green purchasing and container and packaging measures	0	17
Administration costs	Environmental management, monitoring environmental impacts and education measures	0	463
Research and development costs	Environmentally conscious product and process research and development	0	1,457
Social activity costs	Donations and contributions to environment protection	0	162
Environmental remediation costs	Assessment, handling and other costs related to environmental degradation	0	303
<b>Total</b>		<b>2,827</b>	<b>9,640</b>

■ Relations with Employees ■

People create and support technology. We aim to provide ideal working conditions so they can.

The Shin-Etsu Group respects fundamental human rights and implements a variety of approaches to establish a workplace environment that is easy to work in, help each employee realize an affluent and healthy life to make the most of his/her potential and career.

Occupational Health and Safety

■ Health considerations

To further decrease the number of sick, we focus on activities that promote fitness and developing physical strength, and by improving the regular health consultation service, health guidance for lifestyle-related diseases and mental health treatment. Industrial physicians conduct interviews and provide guidance for people working long hours.

Fitness and Physical Strength Development Promotion Committees are also being established in each plant and business establishment. These committees organize physical strength monitoring and hold seminars and events for physical strength improvement in cooperation with local Medical Treatment Rooms. A Family Health Consultation Desk has also been established in the corporate health insurance society to help ensure the health of employees' families.



Exercise lesson was held for good health (September 2008 at Gunma Complex)

Respect for Human Rights

■ The human rights enlightenment promotion committee

We respect the human dignity of all individuals. To help accomplish this, the Human Rights Enlightenment Promotion Committee implements initiatives to ensure that work environments are free of all racial, gender and other forms of discrimination and are places where all employees can work together in a spirit of mutual trust.

In addition, Shin-Etsu belongs to both the Industrial Federation for Human Rights, Tokyo, and the Industrial Federation for Anti-Discrimination, Osaka. Our employees participate in training sessions held by both federations to raise staff awareness of human rights.

■ Performance-based personnel evaluation systems and equal opportunities

We have introduced a performance-based personnel evaluation system for wages, promotions, transfers, etc. that is applied equally to both genders. The system has proven useful for increasing employees' motivation, as their treatment reflects the way in which they meet their challenges to achieve higher goals.

To operate the personnel evaluation system in a fair and appropriate manner, the evaluation standards are made available to all employees and evaluation training is provided for all managers. All possible steps are taken to ensure that all evaluation is carried out according to the uniform standards. Communication between the evaluator and the person being evaluated is ensured by holding two interviews per year.

A Communication Sheet is also prepared between each staff member and his/her immediate superior. This sheet is utilized for further capacity building by ensuring mutual confirmation of the superior's expectations, the subordinate's desires, target setting for the next six months, and feedback on achievements discussed during the interview.

Education/Training and Self-Enlightenment

■ Auditing student system

We established an auditing student system in 1962. In this system, designed to help mid-level employees upgrade their skills, about 10 employees chosen from plant manufacturing sites are sent to study at university for one year. In the 48 years since this system was introduced, 483 employees have completed the program and now function as leaders at their job sites.

■ Participation in CEO 40s training

Mid-level employees are sent on the CEO 40s Program, conducted by Professor Iwao Nakatani of Tama University, as part of our efforts to foster executive candidates. Those who have attended the courses apply the knowledge gained by establishing project teams throughout the Company.

■ Career development support system

To support individual career development, we offer bonuses to employees who have obtained official certification. We also offer correspondence courses, online learning courses for those who have completed two years of study abroad or attended other educational programs.

Benefits

■ BAKER-KANAGAWA Japan—U.S. scholarship program

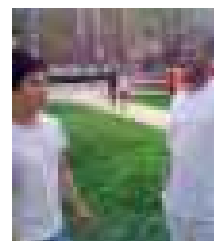
This new scholarship program was set up for the children of Japanese employees of the Shin-Etsu Group to attend universities in the United States, and children of American employees attend University in Japan. The program is the brainchild of Mr. Robert Baker, founder and the first president of Dow Chemical Japan Ltd. and a former chairman of the American Chamber of Commerce in Japan, and Mr. Chihiro Kanagawa, president of Shin-Etsu Chemical. Their shared idea for this program was to foster internationally active human resources and deepen the exchange between Japan and the United States.

■ Bullet train commuting benefits

Since 1989, Shin-Etsu has allowed commuting by shinkansen bullet train at company expense. This

Baker-Kanagawa Japan-U.S. Scholarship

Studying at Purdue University



Yūhi Yanagisawa talking with a friend on the Purdue University campus.

Yūhi Yanagisawa

I was fortunate to be able to study at Purdue University in the State of Indiana as a result of being awarded a Baker-Kanagawa Japan-U.S. Scholarship.

Purdue University is located in the small city environment of West Lafayette, Indiana. It is famous for having more than 20 alumni who went on to become astronauts, including Neil Armstrong, the first man to walk on the moon, an incredible feat that happened just 40 years ago, and Eugene Cernan, the most recent man to walk on the moon.

I am still a first-year student and I am not carrying a heavy class load; however, I am busy with studying and my daily life is spent going back and forth between classes and the dorm. I am spending a fulfilling life every day. At the university I live in a dorm. The room is shared with another student and showers are shared by about 50 students. Naturally, there are many students of different nationalities living in the dorm. In the basement of the dorm, there is a gym, and I am working out as often as I can with dorm mates, trying to build up my muscle strength and mix in some martial arts practice. I have made many good friends.

The fact that I was able to realize this valuable experience and have been able to study without any worries of any kind is due to my parents and to the "Baker-Kanagawa Japan-U.S. Scholarship" system. I am truly grateful from the bottom of my heart. During the remaining three years of my undergraduate career, I would like to learn from various kinds of experiences.

option has allowed more employees to own houses and enables personnel who are reassigned to headquarters from business locations in Gunma and Fukushima prefectures to transfer jobs without changing their lifestyles. As of July 2009, 64 employees were taking advantage of this Company offer.

■ Childcare and nursing-care systems

Our childcare leave system permits employees to take leave till their children have reached the age of three in cases where parents are unable to secure places for their children in nursery schools, and many employees take advantage of the system. Employees raising children who have yet to reach age of three are also allowed to shorten their work time to as little as two hours a day.

As for nursing-care leave, under certain conditions, employees can take up to one year of leave per eligible family member. One employee acquired this system in 2008.

● Number of employees who have taken child-care leave (Fiscal 2008)

Shin-Etsu Chemical (non-consolidated)	9 (male: 0; female: 9)
Consolidated companies in Japan	38 (male: 2; female: 36)
Consolidated companies total*	69 (male: 14; female: 55)

Note: The length of childcare leave differs from country to country, as the program is based on the local laws.

■ Accumulated holidays

Employees are granted a certain number of annual paid holidays in accordance with labor regulations. If those holidays are not taken, they are treated as accumulated holidays, which are then carried over to the next year and may be utilized as family-care leave days or as days off for injury or illness. From July 2007, this system has been applied to people who work as volunteers in disaster regions, as well as to donors for organ or bone marrow transplants.

■ Other systems

In the event of the death of an employee, we offer a scholarship system to support surviving children and family members. Because the Company has group long-term accident and indemnity insurance, workers may still receive a portion of their salaries, should they be unable to work due to long-term illness or injury. In addition, we have established asset-building schemes, a shareholding system, and a mutual aid society to provide support for weddings, births or sudden hospitalizations of family members.

■ Communication with Local Communities ■

We maintain communications with local communities through our plants and business sites.

The Shin-Etsu Group continues its efforts to deepen mutual understanding by promoting an array of communications aimed at building trust-based relationships with a variety of stakeholders in society and successfully realizing the Group's mission to ensure that its global customers are satisfied with its business activities.

■ Educational Support Activities ■

Providing a venue for elementary school children to get to know local industries

Gunma Complex



In front of Silicone-Electronics Materials Research Center

56 third-year students of Nishiyokono Elementary School in Matsuida-machi, Annaka, toured the Gunma Complex, Matsuida Plant. This tour was part of a program to familiarize local residents with local industries. On the day of the tour, the children were lit up with excitement at learning things they had never seen or heard before.

More than 1,000 entered "Magnet Contest"

Takefu Plant



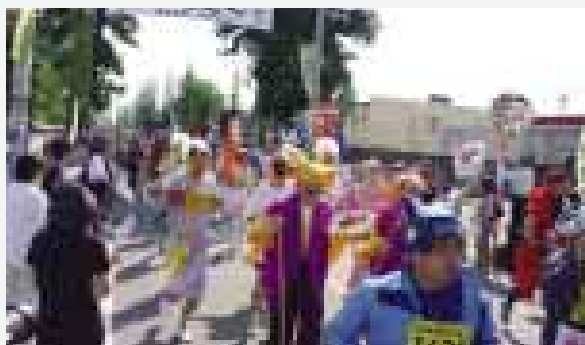
Shuhei Takamura received a prize

Shin-Etsu Chemical's Takefu Plant supports a "magnet idea contest" that is sponsored by the Fukui National College of Technology. The awards ceremony for the 14th contest was held at the college and attended by 50 people. With the goal of fostering practical applications for new ideas, the contest recruits innovative ideas for the use of rare-earth magnets. This year, 29 people were recognized with a range of awards, such as the Idea Award and the Encouragement Award. The number of ideas received surpassed 1,000 for the first time, reaching a total of 1,365. This result reflects the high level of interest in rare-earth magnets.

■ Participating in Local Events ■

Cooperating for "Samurai Marathon"

Gunma Complex



Employees wearing their costumes ran through Annaka-Suginamiki

Annaka City, where the Gunma Complex is located, is the site of the annual Ansei Toh-ashi (Samurai Marathon Competition). In this year's event, which was the 35th, a total of 1,980 people competed, including many Shin-Etsu employees. This competition, in which runners compete while wearing costumes, is well-known throughout Japan. At this year's race, entertaining costumes that showcased the creativity of the competitors received cheers from the roadside spectators, and the atmosphere of excitement was perfectly suited to a mid-summer day. The Shin-Etsu Group supports the Annaka Samurai Marathon each year.

■ Communication with Local Communities ■

Displaying rhododendrons to the Public, Inviting the families of new corners as well

Shirakawa Plant of Shin-Etsu Handotai Co., Ltd.



The beautiful rhododendrons welcomed the visitors

Shin-Etsu Handotai's Shirakawa Plant invited local government officials who have assisted the company as well as the families of employees who joined the company this year to view the rhododendrons on the grounds of the plant. A total of 139 people came and enjoyed the colorful rhododendrons in full bloom, and the visitors were presented with rhododendron seedlings and a commemorative photograph. This public viewing proved to be an excellent opportunity for the plant's neighbors to develop a better understanding of the plant's safe, secure environment.

■ Other Activities ■

Lecture was held inviting Yoshichi Shimada

Naoetsu Plant



Everyone was fascinated by Yoshichi Shimada's talk

A series of cultural lecture meetings are sponsored by the Public Benefit Trust Shin-Etsu Chemical Regional Culture Promotion Fund, which was established as one facet of the commemoration of the 60th anniversary of the establishment of Shin-Etsu Chemical. This year, the lecture meeting was held at the Joetsu Bunka Kaikan in Joetsu City. Yoshichi Shimada, the author of the bestselling book *Saga no Gabai-Baachan (Amazing Grandma from Saga)*, was invited to address this year's meeting, which was the 22nd in the series. During his lecture, he described his philosophy and experiences while talking about the teachings of his amazing grandmother. The hall was continually filled with laughter, and the audience of more than 1,200 was utterly spellbound by Mr. Shimada's talk.

Authorized by Sakai city's promotion program for beautification campaign

JAPAN VAM & POVAL Co., Ltd.



A board was set up on the road in front of the company

Japan VAM & POVAL Co., Ltd., has been recognized for its contributions to Sakai Beautification Promotion Program being promoted by the city of Sakai. Japan VAM & POVAL is a member of the Sakai Senboku Rinkai Corporate Liaison Council, and as one of the council's activities, the company uses the lunch break period to conduct beautification activities near the offices once every two to three months. In the future, as one facet of its corporate social responsibility activities, Japan VAM & POVAL will continue to support progress in beautification, such as taking steps to help eliminate littering on the streets.

■ Activities Overseas ■

Neighbor Day

Shintech



Shintech employees with several other volunteers

Employees from Shintech in Freeport, Texas, participated in the United Way sponsored "Neighbor Day" on May 3, 2008. The team of volunteers reinforced the front porch and built a wheel chair ramp for an elderly lady's home.

United Way's annual "Neighbor day" helps to beautify and better the community and improve lives of people. Volunteers wield hammers, paint brushes or screwdrivers to help their neighbors in need.

SEST planting of the mangrove forest to revive the ecosystem

Shin-Etsu Silicones (Thailand) Limited



The 34 SEST employees who participated in this special effort to contribute to society

SEST's employees formed a social development club since 2005. The purpose of this club is to do activity for social and community as company's policy. We are involved with various projects to contribute to helping with social and community needs every year through such activities as awarding scholarship to needy students and cleaning up the nearby beach areas. In 2008 we had project on August 12th that is Her Majesty Queen Sirikit's birthday. To both celebrate to Her Majesty and to contribute social also, we joined in a planting activity to stimulate the growth of the mangrove forest at Kung Krabaen Bay Royal Development Study Center, Chanthaburi Province, to help revive coastal resources and establish a balance in the ecological system at Kung Krabaen Bay. This year there were 34 participants from among our employees who joined in this activity. Thereafter, we had lunch together and left to head back in afternoon.

## History of Environmental Activities

### Measures taken by the Shin-Etsu Group

Apr. 1953	Work manuals and standards formulated
Sep. 1955	Education and training committees established
Mar. 1961	R&D Committee and Chemical Industry Council established
Jun. 1961	Safety Council established
Oct. 1961	First safety audit carried out
Nov. 1966	Safety Health and Hygiene Committee established
Nov. 1970	Environmental Control & Safety Department established
Oct. 1971	Wastewater treatment facility completed at Isobe Plant
Mar. 1972	Large-scale hydrochloric acid recovery facility (byproduct incinerator) completed at Kashima Vinyl Monomer plant
Nov. 1973	Company wide emergency council established
Feb. 1974	Environmental Control & Safety Departments in each plant placed under the direct jurisdiction of plant general managers
Aug. 1975	Environmental Control & Safety Management Regulations and Emergency Response Regulations formulated
Oct. 1989	CFC Control Countermeasures Committee established
May 1990	Global Environment Issues Countermeasures Committee established (by reorganizing the CFC Control Countermeasures Committee)
Mar. 1995	Participation in Responsible Care (RC) promotion
Jul. 1996	ISO 14001 certification obtained for the Gunma Complex
Dec. 1997	ISO 14001 certification obtained for all production plants of Shin-Etsu Handotai
Aug. 1998	Environmental Charter adopted
Nov. 1998	First Environmental Report published
Jan. 1999	ISO 14001 certification obtained for JAPAN VAM & POVAL CO., LTD.
Nov. 1999	Company-wide hearing on environmental issues
Mar. 2000	ISO 14001 certification obtained for all domestic production plants of Shin-Etsu Chemical
Apr. 2000	ISO 14001 certification obtained for Nissin Chemical Industry
May. 2000	Final disposal facility completed at the Gunma Complex
Oct. 2001	Waste disposal facility completed at the Naoetsu Plant
Mar. 2003	Attended First International Conference on Green and Sustainable Chemistry (GSC TOKYO 2003)
Apr. 2005	Corporate Social Responsibility (CSR) Promotion Committee established
Jul. 2005	Waste-recycling system at Naoetsu Plant began full-scale operation
Oct. 2005	Environmental Charter revised

### Safety/Environment/Industrial Health-related Commendation Results

1953	
1960	
1970	
1980	
1990	
2000	
Nov. 1988	Fukui Prefectural Governor's Award for Excellent Manufacturer of High- Pressure Gases (Shin-Etsu Handotai/Takefu)
Sep. 1992	International Trade and Industry Minister's Award for Excellent Green Factory (Shin-Etsu Handotai/Shirakawa)
Oct. 1993	Osaka Prefectural Governor's Award for Excellent Manufacturer Related to High- Pressure Gases (JAPAN VAM & POVAL)
Nov. 1994	Achieved 13,300,000 disaster-free hours, a 3rd class disaster free record (Shin-Etsu Handotai/Shirakawa)
Jun. 1996	Prime Minister's Commendations for Outstanding Contribution to the National Greening Campaign (Shin-Etsu Handotai/Shirakawa)
Oct. 1996	Minister of International Trade and Industry Award for Excellent Manufacturing Facility of High-Pressure Gases (Shin-Etsu Chemical/Gunma)
Jun. 1997	Fire Defense Agency Director General's Prize for superior handling of hazardous materials (Shin-Etsu Chemical/Gunma)
Jun. 1997	Fire Defense Agency Director General's Prize for superior handling of hazardous materials (JAPAN VAM & POVAL)
Nov. 1998	Superior High-Pressure Gas Production Facility Award from the Head of the Kinki Bureau of Economy, Trade and Industry (Shin-Etsu Handotai/Takefu)
Jul. 1999	Superior High-Pressure Gas Production Facility Award from the Head of the Kanto Bureau of Economy, Trade and Industry (Shin-Etsu Chemical/Kashima)
Jun. 2000	Fire Defense Agency Director General's Prize for superior handling of hazardous materials (JAPAN VAM & POVAL)
Jul. 2000	Minister of Labor Superior Prize (Nissin Chemical Industry)
Jul. 2000	Minister of Labor Superior Prize (Naoetsu Electronics Industrial)
Nov. 2000	Superior High-Pressure Gas Production Facility Award from the Head of the Kinki Bureau of Economy, Trade and Industry (Shin-Etsu Quartz Products/Takefu)
Oct. 2001	Minister of Health, Labor and Welfare's commendation for industrial hygiene activities (Shin-Etsu Quartz Products/Takefu)
Oct. 2001	Minister of Economy, Trade and Industry Award for Superior High- Pressure Gas Production Facility (Shin-Etsu Chemical/Kashima)
Oct. 2002	Thirty-Year disaster-free Special Achievement Award from the Japan Soda Industry Association (Shin-Etsu Chemical/Naoetsu)
Nov. 2002	Superior High-Pressure Gas Production Facility Award from the Head of the Kinki Bureau of Economy, Trade and Industry (Fukui Shin-Etsu Quartz)
Jul. 2003	Superior High-Pressure Gas Production Facility Award from the Head of the Kanto Bureau of Economy, Trade and Industry (Shin-Etsu Chemical/Kashima)
Aug. 2003	Achieved 7,000,000 disaster-free hours, a 1st class disaster-free record (Shin-Etsu Handotai/Isobe)
Aug. 2003	Achieved 5th class disaster-free record (Naoetsu Electronics Industrial)
Jul. 2005	Excellent Safety and Hygiene Workplace Award from the Minister of Health, Labor and Welfare (Shin-Etsu Chemical/Kashima)
Dec. 2005	Commendation of the Malaysian Ministry of Human Resources (a counterpart of the Japanese Health, Labour and Welfare Ministry) for One of Five Domestic Companies in Malaysia for Excellence in Safety and Occupational Health Management (S.E.H.(Shah Alam) Sdn. Bhd.)
Jul. 2007	Nagano Labor Bureau Director's Superior Prize (Nagano Electronics Industrial)

#### External Assessments

FTSE4 Good

#### Rating

Moody's Investors Service, Inc. has classified Shin-Etsu Chemical Co., Ltd.'s long-term debts as Aa3

#### Memberships

Nippon 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, etc.

As of March 31, 2009

## Company's History

### Organization/Investment in Plant & Equipment

Sep. 1926	Started out as Shin-Etsu Nitrogen Fertilizer Co., Ltd (the name was changed to Shin-Etsu Chemical Co., Ltd. in 1940)
Oct. 1927	Naoetsu Plant built
Dec. 1938	Isobe Metal Testing Facilities (current Gunma Complex) opened
May 1945	Takefu Plant opened
Nov. 1960	CIRES S.A. founded in Portugal
Mar. 1967	Shin-Etsu Handotai Co., Ltd. founded
Aug. 1970	Kashima Plant completed
Mar. 1973	Shintech Inc. founded in the U.S.
Jul. 1973	S.E.H. Malaysia Sdn. Bhd. founded in Malaysia
Oct. 1974	Shintech's Freeport Plant operation initiated
Sep. 1976	Silicone-Electronics Materials Research Center opened
Sep. 1976	PVC Research Center (current PVC & Polymer Materials Research Center) opened
Mar. 1977	Specialty Chemicals Research Center opened
Jun. 1977	Magnetic Materials Research Center opened
Mar. 1979	S.E.H. America Inc. founded in the U.S.
Oct. 1984	Shin-Etsu Handotai Co., Ltd. Shirakawa Plant completed
Dec. 1985	Shin-Etsu Silicones of America Inc. founded in the U.S.
Apr. 1988	Advanced Functional Materials Research Center opened
Jun. 1993	S.E.H. (Shah Alam) Sdn. Bhd. founded in Malaysia
Feb. 1996	Simcoa Operations Pty. Ltd. acquired in Australia
Dec. 1999	Dutch PVC business acquired and Shin-Etsu PVC B.V. established

Dec. 2000	The first phase construction completed of Shintech's Addis Plant
Feb. 2001	Asia Silicones Monomer Ltd. founded in Thailand
Feb. 2001	Shin-Etsu Silicones (Thailand) Ltd. founded in Thailand
Jun. 2001	New Functional Materials Research Center opened
Nov. 2001	Shintech's Addis Plant completed
May 2002	JAPAN VAM & POVAL Co., Ltd. founded
Feb. 2003	Shin-Etsu Silicones of America's Freeport Plant completed
Dec. 2003	Swiss cellulose business acquired and SE Tylose GmbH & Co.KG established in Germany
Feb. 2006	TOB (take-over bid) Mimasu Semiconductor Industry Co., Ltd. completed

### Product Development

Oct. 1927	Carbide production initiated
Nov. 1927	Lime nitrogen fertilizer production initiated
Apr. 1939	Silicon metal production initiated
Oct. 1953	Silicone business initiated
May 1957	PVC, caustic soda and chlorine production initiated
Sep. 1960	High-purity silicon production initiated
Dec. 1960	Vinyl acetate monomer and POVAL production initiated
Mar. 1962	Cellulose derivative production initiated
Jul. 1965	Cellulose derivatives developed for pharmaceutical use
Jun. 1967	High-purity rare earths production initiated
Feb. 1973	Rare earth magnets production initiated
Jan. 1978	Epoxy molding compounds developed
Apr. 1979	Synthetic quartz production initiated
Mar. 1980	Synthetic pheromones developed
Oct. 1988	Preforms for optical fibers production initiated
Jan. 1998	Photoresist business initiated
May 1999	Liquid Fluoroelastomers business initiated
Feb. 2001	300mm silicon wafer production initiated
Mar. 2005	New high-performance technology for neodymium rare earth magnets developed
Jan. 2007	Optical isolators complying with the RoHS Directive developed
Mar. 2007	Leading-edge photomask blanks developed with Toppan Printing
Apr. 2008	The world's largest class permanent magnet-type magnetic circuit developed

## Corporate Information (as of March 31, 2009)

Date of Establishment : September 16, 1926

Capital : ¥119.4 billion

Net sales : ¥1,200.8 billion

Net income : ¥154.7 billion

Number of Employees : 19,170 (2,609 Non-consolidated)

Head Office : Asahi Seimei Ohtemachi Bldg., 6-1 Ohtemachi 2-chome, Chiyoda-ku, Tokyo, 100-0004, Japan  
Phone: +81-3-3246-5091

Web-site : <http://www.shinetsu.co.jp>

Branches : Osaka, Nagoya, Fukuoka

Plants : Naoetsu (Niigata), Takefu (Fukui), Gunma (Gunma), Kashima (Ibaraki)

Research Centers : Specialty Chemicals Research Center, New Functional Materials Research Center (Niigata), Magnetic Materials Research Center (Fukui), Silicone-Electronics Materials Research Center, Advanced Functional Materials Research Center (Gunma), PVC & Polymer Materials Research Center (Ibaraki)

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