

2005  
Shin-Etsu  
Chemical  
Environmental  
and Social  
Report

Shin-Etsu Chemical Environmental and Social Report 2005





**In August 1998, the Shin-Etsu Chemical Group adopted an Environmental Charter with the aim of realizing a sustainable society and to promote environmental management on a global basis. In addition, the Group put forward a management goal of “Safety and Environmental Protection First” to ensure safety and environmental protection in every facet of its business activities.**

The Shin-Etsu Chemical Environmental and Social Report was published to provide readers with an overview of the Group’s environmental protection activities, performance and corporate social responsibility (CSR) initiatives. Representative of these activities, performance and CSR initiatives, the Shin-Etsu chemical Group introduced examples from Shin-Etsu Handotai Co., Ltd., Nissin Chemical Industry Co., Ltd. and JAPAN VAM & POVAL CO., LTD. (pages 30 through 35).

**Period:**

This report essentially covers the period from April 1, 2004 through March 31, 2005.

**Scope:**

This report covers the activities of Shin-Etsu Chemical Co., Ltd. and its Group companies. Information collected is presented on an individual basis. The report does not cover Shin-Etsu Polymer Co., Ltd. For details, please refer separately to “The Shin-Etsu Polymer Co., Ltd. Group’s Environmental and Social Responsibility Report 2005.”

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## GREETINGS FROM THE PRESIDENT AND CEO



Nearly 80 years have passed since the founding of Shin-Etsu Chemical Co., Ltd. in 1926. During this time, the Shin-Etsu Chemical Group has been supported by business partners, shareholders and members of local communities, and has carried out corporate activities with an emphasis on management's commitment to "Safety and Environmental Protection First."

Because unusual weather conditions around the world in recent years have led to unprecedented natural disasters, rapid worldwide action in response to global environmental issues has become a matter of urgency. The Kyoto Protocol came into force in February 2005, demonstrating the need to work together on a global scale to prevent global warming and solve various other environmental issues. Awareness of humanity's responsibility to pass on a healthy global environment to the next generation is steadily growing.

The Shin-Etsu Chemical Group has been promoting sound environmental management under the guidelines provided by its Environmental Charter, which the Group adopted in 1998. With the aim of strengthening its endeavors throughout the entire Group, Shin-Etsu in 2005 revised the content of its Environmental Charter, which contains the Group's fundamental philosophy and action policies for contributing to the ongoing improvement of the global environment, including the prevention of global warming.

With recent attention increasingly focusing on corporate social responsibility (CSR), Shin-Etsu is stepping up its efforts to contribute to society as a concerned corporate citizen through its positive activities in local communities. In April 2005, we appointed a CSR director, who also acts as the chairperson of the subsequently formed CSR Promotion Committee, in an initiative aimed at shoring up CSR activities throughout the entire Shin-Etsu Chemical Group. Our desire is to go beyond simple compliance with legal statutes by actively fulfilling our corporate responsibilities in regard to an array of issues.

This Environmental and Social Report has been drawn up to describe and explain our environmental protection activities as well as our corporate social responsibility initiatives. It is our sincere hope that this report will deepen the understanding of these activities by our customers, shareholders and investors as well as the people residing in the communities near Shin-Etsu's facilities.

At each of our manufacturing facilities and business locations throughout the world, the Shin-Etsu Chemical Group will continue to fulfill its social responsibilities as a good corporate citizen, and to work for the protection and preservation of local communities as well as the enhancement of the global environment as an exemplary corporate entity.

Chihiro Kanagawa  
President and CEO  
October 2005

## CODE OF CONDUCT

### Corporate Mission

Contributing to People's Lives as well as to the Advancement of Industries and Societies through the Provisions of Raw Materials.

### Basic Policies Concerning Corporate Social Responsibility (CSR)

1.

The Shin-Etsu Chemical Group's mission is to contribute to people's daily lives as well as to the advancement of industries and societies through providing key raw materials. To achieve this *raison d'être* of all companies, Shin-Etsu places utmost priority on such core business principles as assuring product quality and safety, engaging in fair competition, maintaining good relationships with citizens and governments, strictly managing and protecting customer data and carrying out fair and sound business practices. By faithfully following these principles, Shin-Etsu strives to enhance the worth of the Group and become an ever-steadily-growing company.

2.

The Shin-Etsu Chemical Group makes it a fundamental management principle to pursue the goals of safety-first and environmental conservation. The Group promotes corporate activities that place primary importance on environmental conservation and strives to maintain the trust of its stakeholders.

3.

Respecting the principles of human dignity and life fulfillment, Shin-Etsu endeavors to create a work environment in which all employees can perform their jobs easily and effectively and fully realize their potential. We forbid any discrimination the workplace, any use of compulsory labor and any use of child labor.

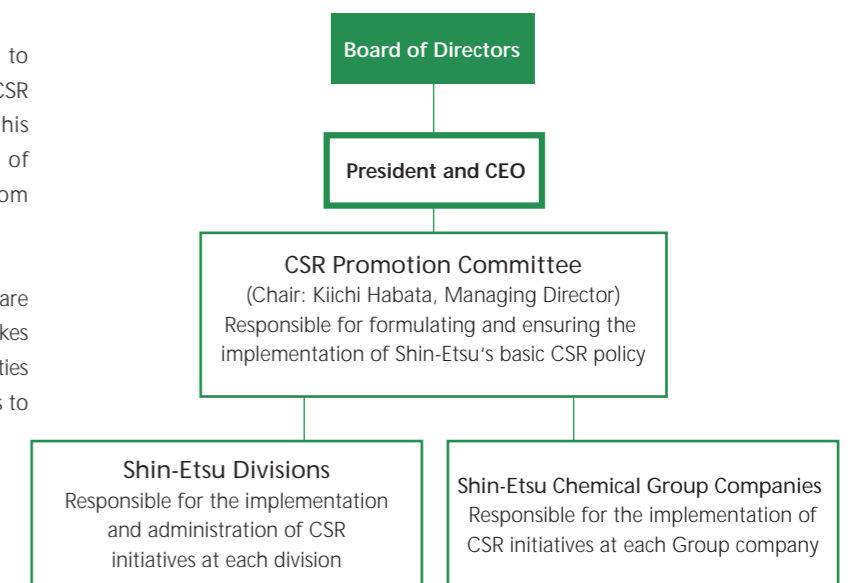
4.

The Shin-Etsu Chemical Group is committed to contributing to society and to disclosing accurate and timely information to the public about the business activities and position of the Group so as to continue to gain the trust and understanding of society.

### CSR Promotion Structure

From fiscal 2005, Shin-Etsu assigned a company director to undertake the task of supervising all of the Company's CSR activities and established a CSR Promotion Committee. This committee is comprised of representatives from each of Shin-Etsu's operating divisions and a representative from Shin-Etsu Handotai Co., Ltd.

Acknowledging that the Company's business activities are inseparable from CSR, the CSR Promotion Committee undertakes a review of existing initiatives. By continuing all positive activities and improving initiatives wherever possible, Shin-Etsu strives to enhance corporate value.



# PROFILE OF THE SHIN-ETSU CHEMICAL GROUP

The Shin-Etsu Chemical Group is composed of Shin-Etsu Chemical Co., Ltd., 90 subsidiaries and 15 affiliates as of March 31, 2005. Shin-Etsu Chemical and its subsidiaries and affiliates share responsibility for sales, manufacturing, and other operations, and cooperate with each other to develop business activities.

Business is divided into three business segments: Organic and Inorganic Chemicals, Electronics Materials, and Functional Materials and Others. Each business field can boast products that have the largest market share in the world, such as a polyvinyl chloride, semiconductor silicon, photomask substrates used for LCDs, and rare earth magnets for hard disk drive (HDD) applications, or the largest market share in Japan, such as silicones.

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

## Main Products

### Organic and Inorganic Chemicals Segment

- Polyvinyl chloride
- Silicones
- Cellulose derivatives
- Methanol
- Caustic soda
- Synthetic pheromones
- Silicon metal



NO.1 market share worldwide for polyvinyl chloride (PVC)

### Electronics Materials Segment

- Semiconductor silicon
- Rare earth magnets for the electronics industry
- Organic materials for the electronics industry
- Photoresists



NO.1 market share worldwide for semiconductor silicon

### Functional Materials and Others Segment

- Synthetic quartz products
- Rare earth magnets
- Rare earths
- Liquid fluoroelastomers (SHIN-ETSU SIFEL)
- Flexible copper-clad laminates (FCL)



NO.1 market share worldwide for photomask substrates

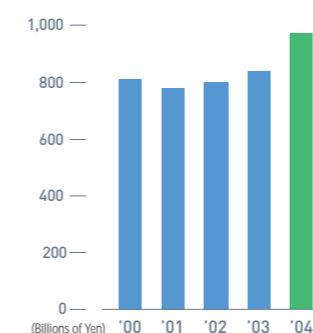
## Financial Information for Fiscal 2004 (the Year Ended March 31, 2005)

Towards the end of fiscal 2004, despite some signs of a slight economic slowdown mainly in the digital consumer electronics industry, the Japanese economy showed a modest recovery supported by increases in facility investment and a steady upward shift in personal consumption. The U.S. economy and the Southeast Asian and Chinese economies as a whole performed well, also mainly based on growth in personal consumption and facility investment, continuing a longer trend of expansion.

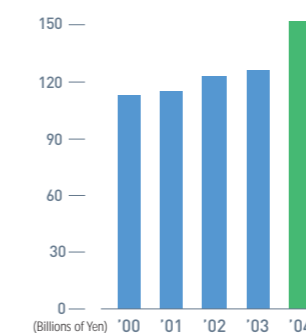
Amid these operating conditions, the Shin-Etsu Chemical Group continued strong sales efforts with regard to their worldwide customers by emphasizing the special features of Shin-Etsu's products and also by fully utilizing the Group companies' sales power that was nurtured in the world market. At the same time, Shin-Etsu aggressively promoted efforts for the further growth and development of its business by making strategic investments and pursuing rationalization and higher efficiency of management systems.

As a result of these activities, consolidated business results for fiscal 2004 showed a net sales increase of 16.2% from the previous fiscal year to ¥967,486 million, a record high for the second consecutive year. Compared to the performance of the previous fiscal year, operating income increased 20.8% to ¥151,734 million, for the highest level in ten consecutive years; ordinary income increased 20.6% to ¥151,503 million, for the highest level in six consecutive years; and net income increased 24.5% to ¥93,160 million, a record high for the tenth year in a row.

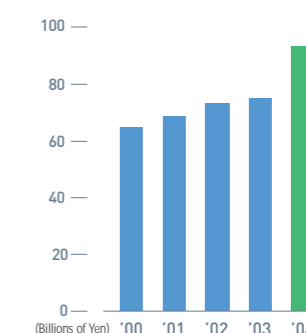
Consolidated Net Sales



Consolidated Operating Income



Consolidated Net Income



## Future Development

Although the trend toward a modest economic recovery is expected to continue, effects of high oil prices and future prospects of both the U.S. and Chinese economies are matters of concern.

Under these circumstances, to ensure the advancement of corporate value and to maximize efforts toward "Sustainable Growth and Development," the Shin-Etsu Chemical Group will further strengthen each of its manufacturing, sales and technology fields and endeavor to respond accurately to the changing business environment.

In addition, in business fields where future growth is expected, Shin-Etsu will actively pursue investments in projects such as Shintech Inc.'s plan in the U.S. to construct integrated manufacturing facilities from electrolysis to PVC resin, the expansion of 300mm wafers production, the expansion of PVC production in the Netherlands, and the steady operation of silicones plants in Thailand and the U.S.

Furthermore, Shin-Etsu will focus on cultivating new business through utmost efforts towards R&D and commercialization of new products, and by actively making strategic acquisitions.

\* Shin-Etsu Polymer Group is included in this financial information.

# CORPORATE GOVERNANCE AND GROUP MANAGEMENT

## Basic Philosophy Concerning Corporate Governance

Shin-Etsu prioritizes corporate governance as one of its most important management issues, works to fulfill various policies based upon a spirit of compliance and strives actively to provide stakeholders with timely disclosure of information.

### ■ Board of Directors / Managing Directors' Meeting

The Board of Directors consists of 16 members, two of whom are external directors with a wealth of management experience. By keeping members to a minimum, Shin-Etsu is working to establish a system for more rapid decision-making and flexible management.

The Board of Directors determines the Company's fundamental policies, and deliberates and decides upon important business operations in light of the Commercial Code of Japan and the Company's articles of incorporation. The Managing Directors' Meeting conducts investigation and determination of other business initiatives.

### ■ Board of Statutory Auditors

Shin-Etsu has adopted a statutory auditor system. In order to improve and strengthen the audit function, three of the four statutory auditors are external auditors. Statutory auditors attend not only meetings of the Board of Directors, but also Managing Directors' Meetings and other important in-company meetings, and they carry out audits concerning Shin-Etsu's business operations.

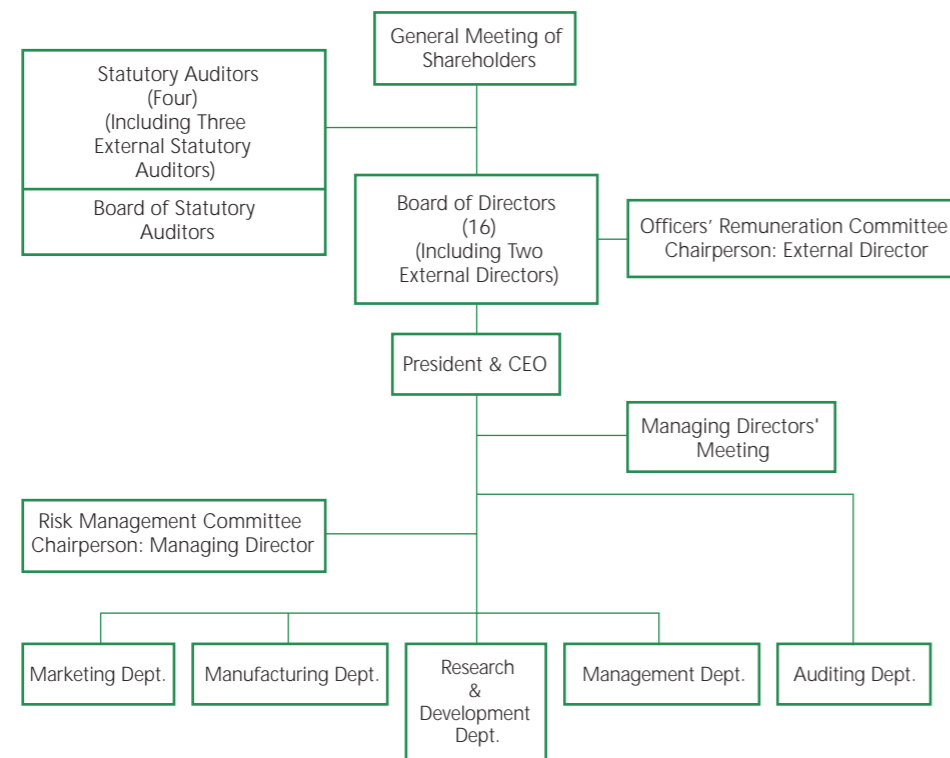
### ■ Committees

With regard to the discussion, review and decisions about board members' remuneration, Shin-Etsu has an Officers' Remuneration Committee chaired by an external director.

Shin-Etsu has also established a Risk Management Committee chaired by a managing director. The Committee works to identify and take preventive measures regarding the various kinds of risk that could possibly occur during the Group's business operations.

### ■ Auditing Department

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



# THOROUGH COMPLIANCE

## Efforts at Thorough Compliance

The Shin-Etsu Chemical Group is taking the following steps to implement more thorough compliance management.

### ■ Thoroughgoing Awareness of Compliance

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

### ■ Compliance Oath

A Compliance Oath has been executed between the directors, employees and the Company, who pledge to conduct daily business activities in the spirit of compliance.

### ■ Compliance Consultation Office

In March 2003, Shin-Etsu set up a Compliance Consultation Office, which acts to support every staff member of the Shin-Etsu Chemical Group to conduct their business activities in strict compliance with laws, government regulations and in-company rules. This office strictly

protects privacy to assure that no repercussions are made against consulters. The Risk Management Committee investigates information gleaned from consultations and formulates countermeasures.

### ■ Information Asset Management System

The Company has determined a fundamental policy concerning information security in order to assure the privacy, safety and stability of its information assets. Shin-Etsu is constructing an information asset management system under an officer responsible for information control, and is striving to manage its information based upon established information asset management regulations and standards.

### ■ Protection of Personal Information

In response to the Law Concerning the Protection of Personal Information, which came into full force from April 1, 2005, Shin-Etsu formulated a personal information protection policy that is posted on the Company Web site. Moreover, Shin-Etsu holds explanatory meetings within the Group related to compliance with relevant laws, and is making exhaustive efforts related to the appropriate handling and protection of personal information.

### Compliance Oath

- I will obey all laws and regulations, ethical standards, and Company regulations, and perform my work for the Company in accordance herewith. I acknowledge that any violation of laws or regulations, ethical standards, or Company regulations is not allowed, even if done for the sake of the Company.
- In the process of performing my work, I will give priority to the safety of people, maintaining people's health, and the protection of the environment.
- I will not engage in insider trading using the internal business information of the Company or any entity/person with which the Company does business.
- In making decisions relating to the Company, I will comply with all Company decision-making guidelines and internal rules, all relevant laws and regulations, and I will take such actions based on the appropriate materials and procedures.
- I will select and treat all customers and vendors with sincerity and fairness. I will not attempt to treat unfairly for convenience or make unfair demands on customers and vendors.

The Shin-Etsu Chemical Group is conducting business activities under the management goal of "Safety and Environmental Protection First." We place a high priority on technological development that contributes to reduction of environmental burden, and conduct thorough environmental management at all stages from the design of products and manufacturing facilities to the creation of an efficient manufacturing system.

Since its formulation in 1998, all business segments and bases have set goals based upon our Environmental Charter and worked to implement those goals. Shin-Etsu will continue to expand environmental management activities in the pursuit of "Safety and Environmental Protection First," and aims to become a world-leading company in the area of sustainable management as well.

## Environmental Charter

### I. Fundamental Principle

The Shin-Etsu Chemical 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.



Kiichi Habata  
Managing Director, Environmental Control & Safety  
Chairman, CSR Promotion Committee

## Environmentally Friendly Products and Efficient Production: The Environmental Protection Duties of Chemical Manufacturers

The Shin-Etsu Chemical Group's central mission is to contribute to the enrichment of peoples' daily lives as well as to the advancement of industry and society, by providing key materials of superior quality. The calling we must fulfill in order to achieve this objective can largely be split into two parts. One is to utilize chemical technologies to provide our direct customers, as well as consumers and societies throughout the world who use the final products, with environmentally friendly materials and related products that help to reduce the environmental burdens associated with economic transformation and consumption. The other is to construct efficient manufacturing systems so as to achieve the greatest possible net social benefits out of utilizing precious natural resources, including scarce minerals as well as petroleum, LNG and other fossil fuels, without wastefulness.

For example, polyvinyl chloride resin is a plastic that has numerous recycling applications, contributing to everyday life in a variety of settings. Made from a combination of approximately 40% petroleum and 60% ordinary salt, a natural resource that is virtually inexhaustible, PVC in particular plays a far greater role than other plastics in saving limited petroleum resources.

Semiconductor wafers play such an indispensable role in all aspects of the development of an efficient electronic society. Silicon is a stable and abundant material that has virtually no negative impact on the environment. Rare-earth magnets are being more and more widely used in high-efficiency motors, and are drawing increasing attention for use in the fields of energy conservation and new energy development.

## Aiming for Greater Results by Technological Breakthroughs

We believe that environmental management in the manufacturing sector is supported by technological prowess. While thoroughly fine-tuning its technological capabilities, Shin-Etsu will continue striving boldly to make further technological innovations and go on working vigorously to achieve new breakthroughs. The Company has already made great strides through its previous endeavors, the momentum for which has been generated by our unique "Shin-Etsu Six Sigma" program. This program is being applied to reform measures in all of the Company's business fields, and has become the foundation of all our business activities. Shin-Etsu will continue to strengthen this program.

## Attaining More Advanced Environmental and Sustainable Management, and Meeting Shareholder Expectations

As in the case of environmental management, corporate social responsibility (CSR) has drawn increasingly explicit attention in recent years; the Shin-Etsu Chemical Group has long been aware of the importance of CSR and has firmly established it as the foundation of our management activities. Still, the new CSR Promotion Committee Shin-Etsu created in April 2005 will certainly further strengthen our CSR activities, as well as convey information about the Company's endeavors to as many stakeholders as possible. Aiming to attain ever higher levels of environmental and sustainable management, Shin-Etsu will continue striving to meet the varied expectations of our stakeholders.

Kiichi Habata  
Managing Director, Environmental Control & Safety  
Chairman, CSR Promotion Committee

# ECO-PRODUCTS AND TECHNOLOGY

Because the Shin-Etsu Chemical Group is the largest manufacturer of polyvinyl chloride in the world, it is often thought of as a petrochemical manufacturer. On the contrary, the primary raw material in products such as silicone (silicone resin) and synthetic quartz, which is used to make optical fibers, is silicon, a material that is abundantly present in nature.

In addition, the composition ratios of salt and petroleum in chlorinated vinyl are 57% and 43%, respectively, indicating that the petroleum content is remarkably low compared with other plastic products.

The following table identifies representative products from among the numerous products and materials produced by the Shin-Etsu Chemical Group that contribute to reducing environmental burden. There are many types of ecological functions a product can provide, such as resource and energy efficiency, effective use of easily recyclable materials, control of harmful emissions, conservation of petroleum resources, or integration with the ecosystem. By providing these products, Shin-Etsu seeks to reduce the overall burden on the environment and to contribute to the conservation of petroleum and other natural resources.






The Eco Mark is labeled on products that have low environmental impact throughout their life cycle and contribute to environmental protection.

### PVC Products Eligible for Eco Mark Certification from the Japan Environment Association (JEA)








PVC resin products became eligible to acquire the Japan Environment Association's Eco Mark as of September 2005. The JEA's Eco Mark office recently overhauled its Eco Mark certification standards for plastic products, and on the condition that products are recyclable, PVC products became eligible for certification.

Previously, PVC was thought to generate dioxins according to incineration conditions. As a result of testing in relation to the recent overhaul by the JEA, however, it was discovered that the chlorine source generating dioxins was not limited to PVC, and that even reducing the amount of PVC incinerated is not linked with lower dioxin levels.

That such an assessment was handed down by the JEA from a scientific perspective is a matter of great significance, and is expected to promote a correct understanding of the environmental friendliness of PVC from this time forward.

Products	Usage	Ecological function	Point of products
Polyvinyl chloride 	Polyvinyl chloride	Energy saving materials in general (in the production process)	The material comprises salt (57%) and petroleum (43%); the ratio of petroleum is lower in comparison with other plastic products, with minimal adverse environmental effects in the Life Cycle Assessment (LCA)* in comparison with other materials.
	Products such as chlorinated vinyl sash	Energy saving	Better able to insulate against heat compared with other materials; accordingly, enables the saving of fuel for air conditioners and electric power.
	Products such as chlorinated tube	Excellent durability	More durable in general compared with other materials.
Cellulose derivatives 	Admixture for underwater concrete	Water pollution control, improving the workplace environment	Increases the viscosity of concrete, thereby preventing water pollution during construction in water. We have developed technologies that lower the volume of dust stirred up when concrete is sprayed onto tunnel walls.
Rare earth magnets 	Compressor motors for air conditioners	Resource saving, compact in size, energy saving	Reduces annual electric power consumption. Reduces the quantity of lead.
	Wind-power motors	New energy	Compared with thermal power generation, enables a reduction of the amount of generated CO <sub>2</sub> , nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), etc., and consequently helps prevent global warming and environmental pollution.
	Electric vehicle motors	Clean energy	Compared with gasoline, enables a reduction of the amount of CO <sub>2</sub> , nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), etc., that are generated, and consequently helps prevent global warming and environmental pollution.

\* Life Cycle Assessment (LCA): Method to evaluate the degree of environmental influence in the process of production through collection and reuse

Products	Usage	Ecological function	Point of products
Silicone Typical form of silicone Form of silicone oil  Form of silicone resin  Form of silicone rubber 	Silicone for plastic (modified resin)	Reduces adverse effects on the environment	By not using environmentally hazardous substances, improves safety and is superior in terms of recyclability.
	For tires (modified rubber)	Energy saving, improvement in fuel charge countermeasures	By improving fuel charges, enables a reduction in the amount of generated CO <sub>2</sub> , nitrogen oxides (NO <sub>x</sub> ), and sulfur oxides (SO <sub>x</sub> ), etc., and consequently helps prevent global warming and environmental pollution.
	Water-repellent agent construction	Reduces adverse effects on the environment, harmonization with ecosystem	Improves safety by not using environmentally hazardous substances.
	Lubrication oil	Energy saving	Superior lubrication at low temperature.
	Addition to paints	Resource saving	Superior in terms of corrosion resistance and weather resistance.
	For LIMS (liquid silicone, injection molding system)	Energy saving	Energy saving in the process of molding and increases productivity.
	Heat radiation and insulation	Energy saving and resource saving	Efficient in energy saving and reduces the quantity of CO <sub>2</sub> , resulting in the minimal use of products.
Hardening of UV (ultraviolet rays)	Energy saving, non-solvent agent	Saves more energy compared with heat curing type products.	
Non-solvent type products (for release paper, etc.)	Reduces adverse environmental effects, non-solvent agent	Use of both a solvent agent and dilution solvent are unnecessary, and consequently there is a reduction in capacity and increased savings at the transportation stage. Since organic solvent is not used, the product is safe for people. Enables a reduction of adverse effects on the environment involving discharge into the atmosphere.	
Synthetic pheromones 	Mating disruptant	Harmonization with ecosystem, ecological agrochemicals	This product is a synthetic natural substance with minimal toxicity that decomposes into water and carbon dioxide in the natural environment, making it more environmentally friendly compared with earlier agrochemicals.
Epoxy-molding compound 	Resin encapsulating material for semiconductors	Controls chemical substance generation	We achieved the highest standards in flame retardation (UL-94 V-0 standard) by introducing a proprietary flame retardant system that uses silicon technology and does not use halogen or antimony compounds, which harm the environment.
Hot melt adhesives 	Magazine recycling	Resource conservation	It is now possible to achieve 100% recycling, including those parts of magazines that could not previously be recycled, such as those containing glue.
Polypropylene (PP) film 	Microwave oven condensers	Conserves resources	An alternative to conventional condensers using paper, helping to conserve forest resources.

# SHIN-ETSU MATERIALS SUPPORTING THE ENVIRONMENT AND SAFETY MEASURES FOR AUTOMOBILES

Promoting materials manufacturing as the key to the evolution of vehicle technology

Shin-Etsu Chemical Group products cut across a broad spectrum of fields and possess an array of unique features. They hold a wealth of potential as key drivers of vehicle technology evolution in areas such as greater safety and reliability, and contribute to more compact, lighter weight and environmentally friendly vehicles.

## POVAL

POVAL is the mainstay product of Shin-Etsu Chemical Group company JAPAN VAM & POVAL CO., LTD., and is seeing greater use in the interlayer of laminated automobile glass. It contributes to a higher level of automobile safety by stopping glass from scattering in all directions when broken, thereby averting injuries from glass shards through its superb impermeability. POVAL is also drawing attention for applications to improve living comfort due to its sound and heat insulating properties.



## PVC Resin

PVC is one of the best performers among general-purpose resins in terms of low environmental impact, and also has excellent environmental qualities from a Life Cycle Assessment perspective. It is also widely used in automobile applications such as coating for interior products or electrical wire harnesses due to its superior flame resistance, electrical insulating and durability properties.



## Liquid Fluoroelastomer SHIN-ETSU SIFEL®

In addition to resistance to cold so effective that it maintains its rubber elasticity to temperatures of minus 50 degrees Celsius, SHIN-ETSU SIFEL® has superior characteristics such as resistance to oils, solvents and chemicals. It is also easily processed, and because of these properties it is used in automobile control units, sensors and fuel tanks, boosting fuel efficiency and contributing to the prevention of atmospheric pollution.



## Rare Earth Magnets

These are high-performance permanent magnets that use rare earths for raw materials and boast the world's highest-level magnetic strength. Automobile applications include use for driving the various motors in hybrid and fuel-cell vehicles, as well as use in generators and sensors. Rare earth magnets help to achieve smaller and lighter components, and contribute to energy conservation and clean energy needs.



## Rare Earth

Through our original and advanced separation and refining technologies, as well as our physical property control technologies, we extract and market a variety of high-purity rare earth products. Shin-Etsu rare earths have superior chemical characteristics, and are used in automotive electronic components, a variety of sensors and as a catalyst in exhaust gas purification. Our rare earths boost fuel efficiency and contribute to the prevention of atmospheric pollution.



## Acrylic Emulsions

Acrylic emulsions are water-based adhesives used as lining for car seats, and are manufactured by Group company Nissin Chemical Industry Co., Ltd.. These products are drawing greater attention as an alternative to organic solvents, helping to cut down on the amount of volatile organic compounds released into the environment.



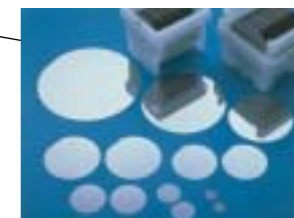
## Silicones

Silicones combine inorganic and organic properties, and take a variety of forms including silane, oil, resin and rubber. They exhibit an assortment of features such as resistance to heat, cold and weather, and excellent electrical insulating properties. Silicones are used in a broad array of automobile applications. Silane coupling agent, used to help incorporate silica into rubber tires, contributes to the reduction of environmental impact in several ways: tire abrasion is improved and rolling resistance reduced, which boosts fuel efficiency and extend tire life. The overall balance of tire properties is also improved.



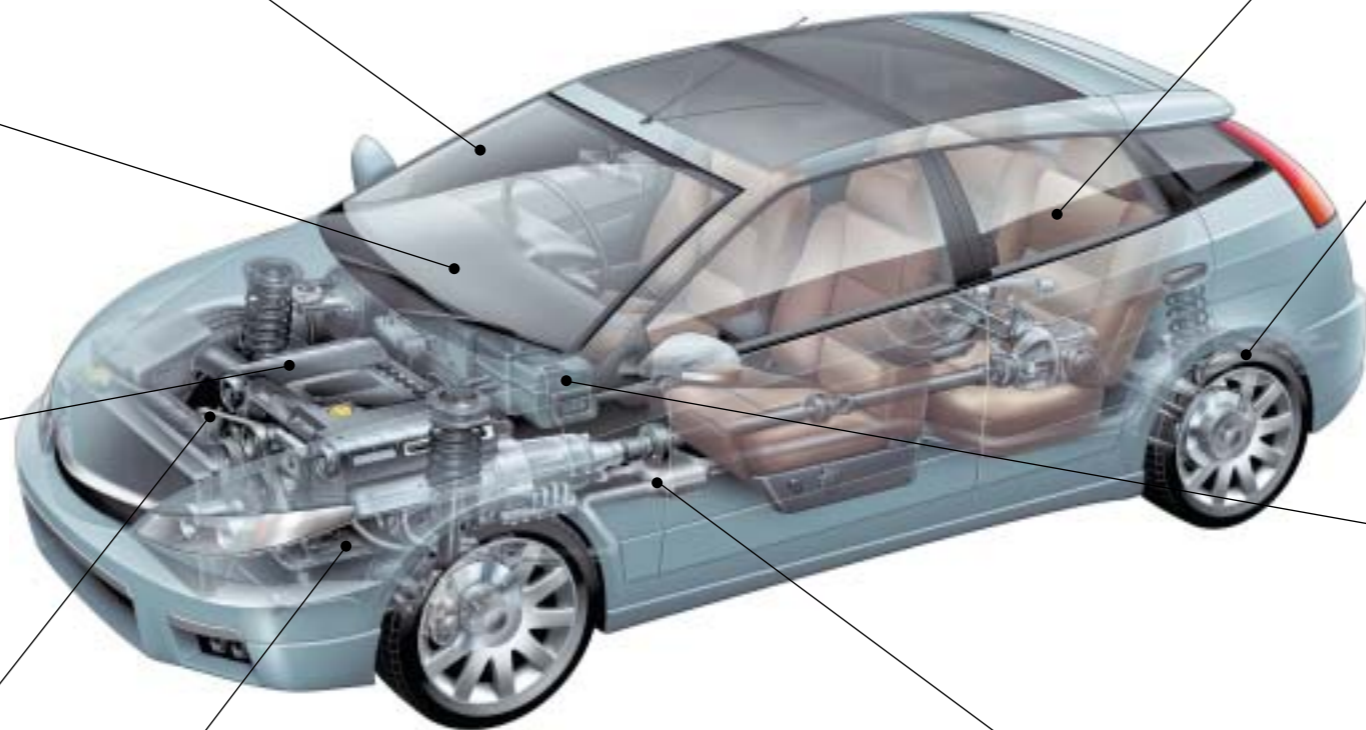
## Semiconductor Materials

Semiconductor use is growing rapidly in accordance with the increasing number of electronic systems employed in automobiles. As the world's top maker of semiconductor silicon wafers, the Shin-Etsu Chemical Group provides a stable and diversified supply of silicon wafers for use as integrated circuits in automotive electronic components. In addition, we manufacture epoxy molding compounds used as a packaging material for semiconductor products, and photoresists and Pericle, which are indispensable in the semiconductor production process. Through these products, we are helping to improve vehicle driving performance and safety.



## Cellulose Derivatives

Cellulose derivatives are environmentally friendly materials made from natural polymers. Widely used as binders and thickeners, they are employed as binders in ceramic automotive components such as honeycomb catalysts, which purify NOx and other harmful substances contained in automobile exhaust gas. Such uses contribute to the prevention of air pollution.

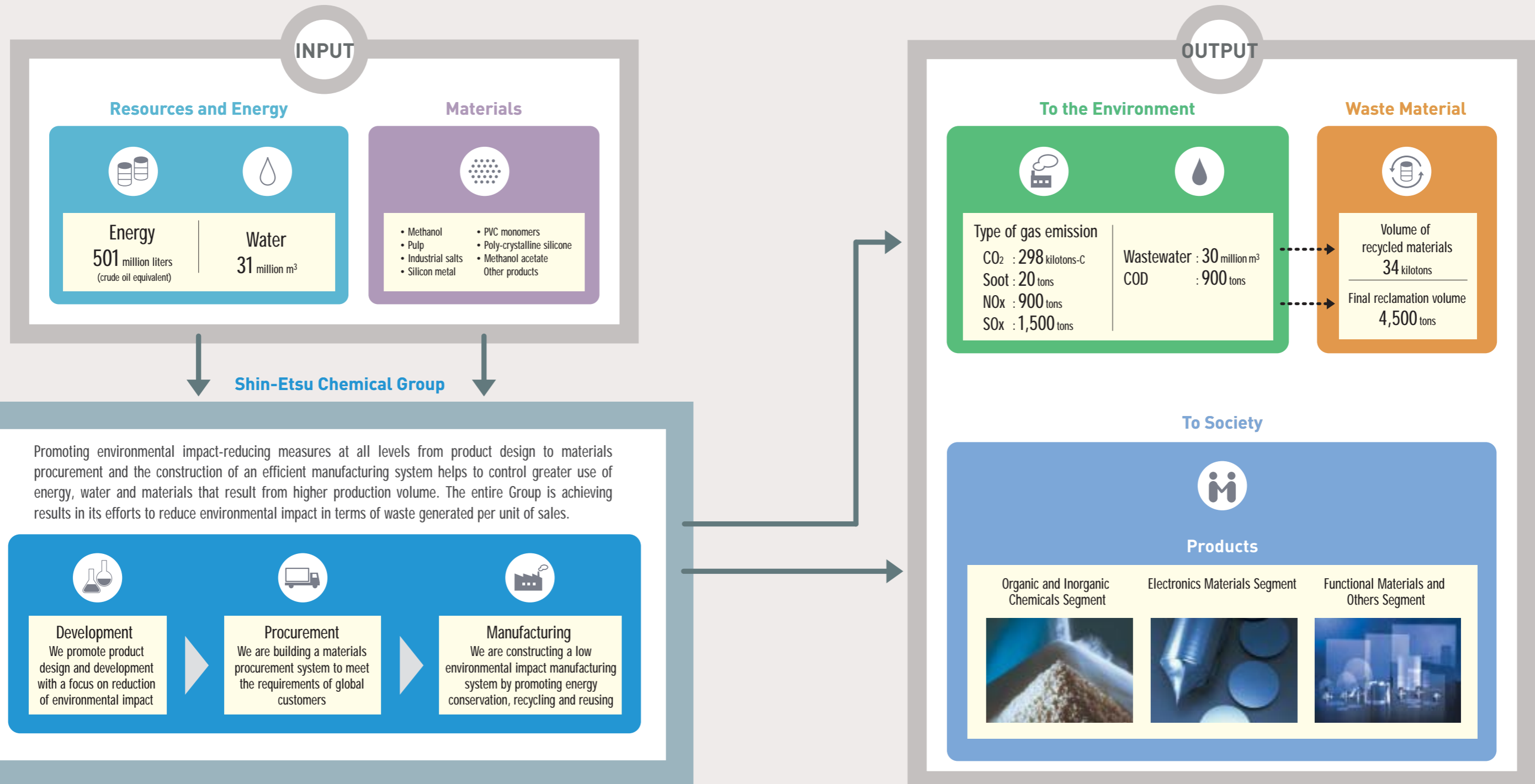




# ENVIRONMENTAL IMPACT OF BUSINESS ACTIVITIES

Aiming to become the leading company in energy conservation and efficient use of natural resources

The Shin-Etsu Chemical Group works to reduce environmental impact and risk in all business activities through sound environmental management. As a materials manufacturer, Shin-Etsu also aims to utilize resources efficiently, and to provide new materials that lower environmental burden and contribute to resource conservation through advanced technological developments.



Companies included in the data are Shin-Etsu Chemical, Shin-Etsu Handotai, Nissin Chemical Industry and JAPAN VAM & POVAL

Promoting environmental management through a lean and effective organizational structure, and aiming to reduce environmental impact by actively investing in environment facilities

## Environmental Management Organization

Shin-Etsu established its Environmental Control & Safety Meeting, chaired by the Managing Director in Charge of Environmental Control & Safety, to address specific issues related to environmental management. Those responsible for environmental control and safety at major domestic affiliates participate in the Environmental Control & Safety Committee, working for environmental preservation throughout the entire Group. Environmental management policies and targets, health and safety guidelines, and related matters are coordinated by the Environmental Control & Safety Department at corporate headquarters.

Regular environmental safety inspections and special audits are also conducted to ensure proper administration of environmental protection and safety activities.

The Environmental Control & Safety Department at each plant provides technological support regarding environmental protection to the various manufacturing departments, and handles all relations with external institutions, such as local government bodies, relevant government agencies and industry associations.

## Environmental Accounting

Shin-Etsu's environmental accounting tallies the expenses incurred and investments made in efforts to reduce the environmental burden from air and water pollution, noise, vibration and waste disposal; measures to conserve energy; and initiatives to increase recycling.

We have invested a cumulative total of approximately ¥18.2 billion in environment related activities over the past 11 years. Major investments during this period are presented as follows:

- Upgraded wastewater treatment facilities at the Naoetsu Plant and Takefu Plant
- Installed waste processing facilities at the Naoetsu Plant and Kashima Plant
- Upgraded the industrial waste disposal site at the Gunma Complex
- Installed energy conservation and recovery facilities at the Gunma Complex and Kashima Plant
- Upgraded environmental countermeasures at manufacturing facilities at the Takefu Plant and Kashima Plant
- Environmental improvements in areas around other plants

We have also compiled details of investments and expenses related to environmental protection for fiscal 2004 in accordance with environmental accounting guidelines stipulated by the Ministry of the Environment.

### Environmental Costs in Fiscal 2004

Category	Details	(Millions of yen)	
		Investment	Expenditure
Business area costs:			
Pollution prevention cost	Air, water, noise and other types of pollution prevention measures	985	2,899
Global environment conservation cost	Energy conservation and global warming prevention measures	990	790
Resource circulation cost	Waste prevention, recycling and other measures	436	1,460
Upstream and downstream costs	Green purchasing and container and packaging measures	0	86
Administration cost	Environmental management, monitoring environmental impacts and education measures	0	432
Research and development cost	Environmentally conscious product and process research and development	0	628
Social activity cost	Donations and contributions to environment protection	4	200
Environmental remediation cost	Assessment, handling and other costs related to environmental degradation	0	196
Total		2,415	6,691



Raw material recycle facilities: Incineration (front, left) and recovery (back, right) facilities of the Naoetsu Plant's recycling system  
Shin-Etsu invested in and commenced full-fledged operation of an innovative new system that recovers emissions gas and salt water from wastewater, and reuses these as raw materials. (The incinerator's stack is giving off steam)

## Environmental Management Systems

Shin-Etsu and primary affiliates employ environmental management systems that function as organizations through which all employees can participate in environmental control and safety. In pursuit of environmental protection programs suited to our production sites, in July 1996, our Gunma Complex attained ISO 14001 certification, the international standard for environmental management systems. All our domestic plants completed certification in 2000, and we are rapidly moving toward completion of the certification of our primary affiliates and overseas manufacturing bases.

Under our environmental management system, our plants are constantly engaged in improving activities to protect the environment and reduce the environmental burden of their operations by setting environmental targets particular to their manufacturing facilities. (For further information on the ISO 14001 status of Shin-Etsu and its principal affiliates, see page 37.)

## Environment Oversight Systems

Shin-Etsu has adopted audit and inspection systems to ensure that environmental management systems conform to the highest standards of environmental protection and safety.

### Self-Monitoring and Audit Programs

Fiscal year	'00	'01	'02	'03	'04
Environmental control & safety audits	12	8	8	9	8
Safety inspection committee meetings	50	50	40	44	60
Labor/management safety patrols	30	23	27	42	21
Number of HAZOP studies	35	27	66	66	42

### Environmental Control and Special Audits

Shin-Etsu's audit teams are committees composed of technical and safety experts, led by the Director in Charge of Environmental Control & Safety. The teams conduct on-site inspections of environmental protection programs, results achieved and problems encountered, and check records for accuracy and completeness. Special audits are conducted on individual environmental issues. Reports of these inspections are circulated to all executives and to the inspected plants, and follow-ups are implemented to promote continual improvements.

### Safety Inspection Committee

Shin-Etsu's safety inspection committees are composed of plant managers and key personnel. These committees inspect the installation and safety performance of new facilities utilizing Hazard and Operability studies (HAZOP\*) and other studies to identify areas for improvement in an effort to further raise environmental protection and safety.

\* Hazard and Operability Study (HAZOP)  
HAZOP's are designed to allow improvement in work procedures and facilities by anticipating potential malfunctions in manufacturing facilities and the resultant environmental pollution brought on by changes to operating conditions. HAZOP's are conducted when a new facility is in the design stage, and are done by the designers and facility managers to ensure that a high degree of safety is designed into the facility. Existing facilities are also subject to HAZOP's, in which their operators participate, and this is reflected in improvements to operating procedures and facilities.

Despite higher production volumes due to stronger net sales, the Company is seeing successful decreases in all indices that measure environmental performance in terms of sales unit ratios.

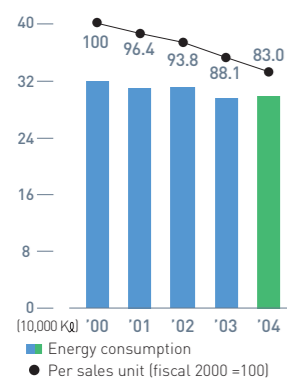
Shin-Etsu makes every effort to reduce environmental burden, preserve the global environment and promote resource recycling. We report the results of these efforts in a variety of management indicators. For reference, we have compiled historical five-year data on management indicators and sales unit ratios.

In fiscal 2004, Shin-Etsu was not fined for any infringement of environmental laws or regulations, in spite of one minor environmental incident.

## Energy Conservation and the Prevention of Global Warming

### Energy Conservation

■ Energy Consumption (Crude Petroleum Equivalent)



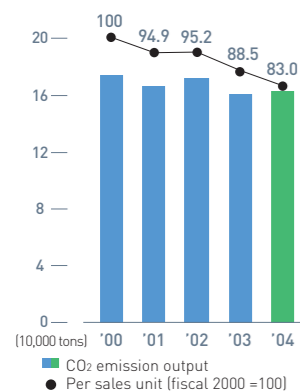
Shin-Etsu consumes both thermal energy and electrical energy in synthesis, purification and various other manufacturing processes. To use the world's resources wisely, we have adopted various methods and diversified technologies to more efficiently utilize and conserve energy. These measures include:

- Introducing cogeneration systems
- Increasing the efficiency of heating and cooling method processes
- Collecting synthetic response heat and recycling it as steam
- Reducing electrical power consumption by adopting highly efficient refrigeration units.

In fiscal 2004, energy use at Shin-Etsu totaled 299,000 kiloliters in crude oil equivalents. Though this represented an increase of 4,000 kiloliters compared with the previous fiscal year, we achieved energy savings of 6%, or 18,000 kiloliters in crude oil equivalents, on a sales unit basis.

### Preventing Global Warming

■ CO<sub>2</sub> Emissions (Carbon Equivalent)



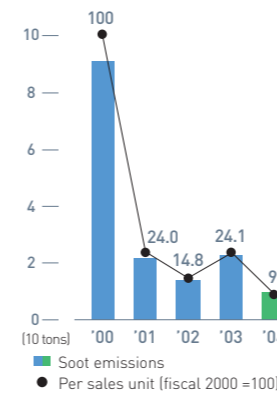
Shin-Etsu is working to minimize emissions of CO<sub>2</sub>, methane, CFCs and other "greenhouse gases" that cause global warming. In 1995, we completely ceased all use of those CFCs that have a harmful effect on the ozone layer.

- Controlling the generation of CO<sub>2</sub> by promoting energy conservation
- Shifting to low CO<sub>2</sub> generating energy sources

In fiscal 2004, CO<sub>2</sub> volume generated by energy sources was the approximate equivalent of 163,000 tons of carbon, a decrease of 11,000 tons over the past five years. On a sales unit basis, however, CO<sub>2</sub> emissions were reduced by 17% over the same period.

### Preventing Air Pollution

■ Soot Emissions



Shin-Etsu is working to reduce the emission of air pollutants through equipment upgrades, and to reduce the environmental impact of our operations by improving facilities and switching to low-polluting fuels.

Our boilers primarily burn fuel oil, which gives off CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub> and soot. In addition, our plants incinerate the by-products, waste solvents, sludge and rubbish that are generated from manufacturing activities. The incinerator stack gases also contain CO<sub>2</sub>, small amounts of NO<sub>x</sub> and SO<sub>x</sub>, soot, and extremely small quantities of dioxins.

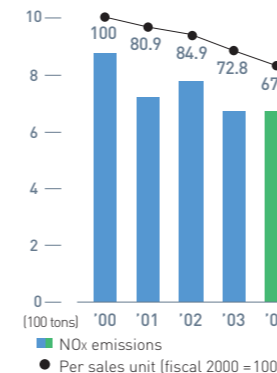
Shin-Etsu regularly monitors and analyzes these gas emissions to ensure compliance with statutes and regulations governing pollutant concentrations.

- Shifting to low pollutant generating fuels
- Improving incineration methods
- Adding pollutant treatment facilities
- Maintenance checks of facilities to prevent air pollution

Production increases led to changes in gaseous emissions. In fiscal 2004, the amount of soot was 10 tons, NO<sub>x</sub> was 674 tons and SO<sub>x</sub> was 1,348 tons. Soot emissions were down 57% compared with the previous fiscal year.

Despite slight increases in the total volume of NO<sub>x</sub> and SO<sub>x</sub> generated, emissions of both per sales units were down 6% compared with the previous fiscal year.

■ NO<sub>x</sub> Emissions

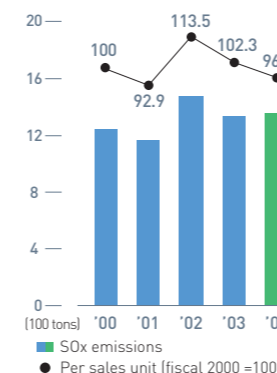


#### Boiler Exhaust Analysis Results at the Naoetsu Plant

	Government limit	'00	'01	'02	'03	'04
Soot (g/Nm <sup>3</sup> )	<0.25	<0.21	<0.01	<0.045	<0.02	<0.02
NO <sub>x</sub> (ppm)	<150	<120	<120	<130	<110	<83
SO <sub>x</sub> (K value)	<11.5	<2.0	<2.0	<1.5	<1.1	<1.2

Note: The Company has revised regulation levels and reported NO<sub>x</sub> and SO<sub>x</sub> figures through 2003 due to inaccuracies. Past reported figures (before revision) also do not yield any infractions of regulation levels.

■ SO<sub>x</sub> Emissions

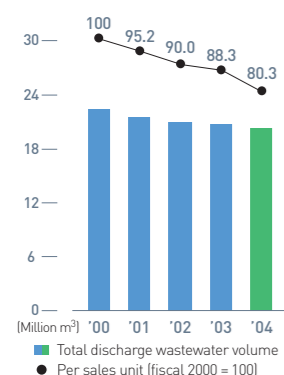


#### Incinerator Exhaust Analysis Results at the Gunma Complex

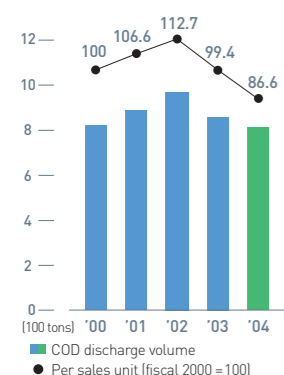
	Government limit	'00	'01	'02	'03	'04
Soot (g/Nm <sup>3</sup> )	<0.15	<0.1	<0.1	<0.01	<0.03	<0.01
NO <sub>x</sub> (ppm)	<250	<100	<100	<100	<90	<100
SO <sub>x</sub> (K value)	<17.5	<1	<1	<1	<1	<0.55
Hydrogen chloride (mg/Nm <sup>3</sup> )	<700	<200	<51	<74	<54	<28
Dioxins (ng/Nm <sup>3</sup> )	<5	<0.01	<0.01	<0.01	<0.01	<0.01

### Preventing Water Pollution

■ Total Discharge Wastewater Volume



■ COD Discharge Volume



Shin-Etsu practices the efficient disposal of wastewater and monitors the pH of final effluent to protect the river environment.

Most of the water used by our plants is process water used in the manufacture of products and in cleaning, or is cooling water for machinery. No water is discharged until it is confirmed to be within the standards set forth in the Water Pollution Control Law and other applicable regulations.

- Upgrading wastewater treatment facilities
- Reusing cooling water
- Controlling wastewater quality

In fiscal 2004, wastewater volume increased slightly in spite of recycling efforts and other water conservation measures. In terms of wastewater per sales unit, however, we achieved a decrease of 9% compared with the previous fiscal year. Despite fluctuation from year to year, Chemical Oxygen Demand (COD\*) volume decreased 51 tons compared with the previous fiscal year, and declined 13% in terms of COD per sales unit.

\* 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.

#### Wastewater Quality Monitoring at the Gunma Complex

Wastewater analysis results	Wastewater standard	'00	'01	'02	'03	'04
pH*	5.8 ~ 8.6	6.7 ~ 6.9	6.1 ~ 7.4	6.6 ~ 7.4	6.8 ~ 7.3	6.6 ~ 7.4
BOD* (ppm)	<25.0	<3.3	<6.0	<18.0	<22.0	<17.0
SS* (ppm)	<50.0	<6.0	<15.0	<44.0	<41.0	<43.0

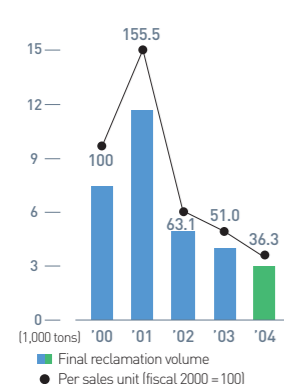
\* Potential of Hydrogen (pH): This is a unit of hydrogen ion exponent (log [H+]) that indicates whether a solution is acidic (less than pH7), neutral (pH 7) or alkaline (more than pH 7).

\* 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.

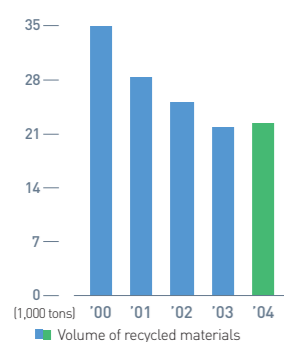
\* Suspended Solids (SS): These are organic and mineral particles that are suspended in water. They are a major cause of turbidity, and have a significant impact on aquatic life.

### Reducing Industrial Waste

■ Final Reclamation Volume



■ Volume of Recycled Materials



Each plant discharges industrial waste in the form of secondary material by-products and solvents from non-reactive and reactive chemicals, organic and inorganic sludge, and oil and acid waste. Concerning waste generated by its manufacturing activities, Shin-Etsu promotes recycling and reuse while controlling emissions of waste, and also strives to effectively use resources.

- Converting inorganic sludge to raw material for cement, and using organic sludge in fertilizer
- Reusing through separation and recovery of acid and alkalis
- Thermal recycling of waste oils and solvents
- Reducing of polluted sludge through dehydration

In fiscal 2004, we worked actively to reduce waste toward environmental management targets through efforts to recover and reuse commercial metals, utilize inorganic waste as a raw material in cement stabilization, and recycle waste acid and alkalis.

As a result, final disposal waste fell to 3,000 tons, a significant reduction of 900 tons in comparison with the previous fiscal year. Moreover, recycling volume exceeded 22,000 tons, demonstrating the steady progress of our recycling activities.

### Other Environmental Protection Activities

#### Reduction of Vibrations and Noise

Shin-Etsu conducts scheduled measurements of vibrations and noise at specified points around the boundaries of its plants to ensure compliance with standards. We also analyze the data gathered to assist in our planning for the installation of noise abatement equipment and the upgrade of machinery that create vibrations.

Some of our manufacturing facilities have received complaints about noise from our pumps, and in response we are redoubling efforts to further reduce vibrations and noise while explaining the situation in detail to affected parties.

#### Environmental Control and Safety Education

To convey the importance of environmental protection, Shin-Etsu trains all personnel in the provisions of its Environmental Charter and the environmental policies of each plant. We also provide training in the importance of the "3Rs\*," the preservation of natural environments and the effects of destruction of the ozone layer.

In addition, the Company is conducting safety sensitivity training to prevent accidents and disasters, and is providing training in facility maintenance techniques including safety.

Specialized training is held for personnel whose functions can have significant effects on the environment, such as emergency response personnel and wastewater management personnel. This training requires specialized knowledge, and leads to technical qualifications.

Specialized Knowledge and Technical Qualifications:

- To manage industrial waste materials
- To manage wastewater quality
- To manage gaseous emissions
- To develop high pressure (HP) gas safety technology
- To handle hazardous materials
- To handle toxic chemicals

\*3Rs: Reduce, reuse and recycle

#### Industry-Level Environmental Activities

Shin-Etsu is a member of the Japan Chemical Industry Association, Vinyl Environmental Council (VEC), the Plastic Waste Management Institute, and other groups. We participate in chemical substance management and research activities, public relations to promote a correct understanding of PVC, and efforts to improve industrial waste disposal and recycling technology.

- Reducing toxic air pollutants, survey of volatile organic compounds (VOC)
- Introducing characteristics of polyvinyl chloride resins and promote recycling
- Supporting recycling of waste plastics
- Responsible care activities

Prioritizing our basic philosophy for all corporate activities, "Safety and Environmental Protection First"

At Shin-Etsu, the preservation of the environment and the maintenance of safety are always before us, and are priorities second to none in our business operations. We believe it is our responsibility as a firm to provide a safe working environment for our employees, and to ensure the safety of local residents. The fundamental philosophy of our business activities is to place "Safety and Environmental Protection First."

## Environmental Protection and Safety in the Logistics Stage



Tanker truck for use of integrated transport system

Shin-Etsu is working to implement a number of environmental preservation and safety measures throughout its logistics system, in cooperation with Group shipping companies and external contractors.

- Combining truck and rail shipping
- Shortening shipping routes
- Issuing Yellow Cards
- Providing container Yellow Cards

Moreover, we are implementing education programs for drivers in the event they are involved in a traffic accident or emergency, installing emergency equipment in vehicles, and establishing an emergency support network.

During fiscal 2004, the Company conducted shipping operations with a keen awareness of environmental protection and safety assurance, contributed to energy conservation and worked to reduce CO<sub>2</sub> emissions.

## Emergency Response



Emergency drill during disaster prevention training

A large-scale disaster at any one of Shin-Etsu's plants would have a potential impact on not only Shin-Etsu's employees but also on surrounding areas. Should such an accident or a large-scale earthquake occur, we have established emergency response procedures and conduct periodic emergency drills to ensure their effectiveness.

Emergency drills are conducted at each of our plants, as well as at each department, to ensure appropriate action is taken in the event of a disaster such as fire, explosion or a leak of hazardous materials. Drivers are also provided with emergency equipment in the event of an accident during transportation.

With regard to recent incidents, both domestic and overseas, we have:

- Established a redundant emergency communication system in the event of a large-scale earthquake
- Used simulation software to perform a quantitative evaluation of the damage done
- Strengthened our crisis communication capabilities through the establishment of systems to disseminate information to regional citizens
- Installed emergency equipment in all appropriate locations including a support network outside the Company's premises
- Upgraded the Yellow Card information system and provided training in how to respond in emergency situations

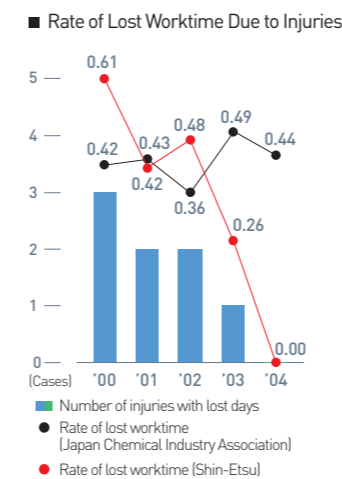
Through these and other endeavors, we have expanded our risk management structure and strengthened our response capabilities.

## Safety and Occupational Health

### ■ Safety Programs

Shin-Etsu is utilizing safety inspection committees to maintain safety within our facilities, and the HAZOP method to institute improvements to our facilities and industrial processes. Our periodic safety patrol and safety suggestion programs have also made numerous contributions to this effort.

### ■ Zero Accident Programs



Since fiscal 2002, Shin-Etsu has been developing "zero accident programs" with the aim of eradicating accidents due to human error. We implemented a hazard awareness program, risk assessment, safety patrols and programs to prevent accidents in order to encourage greater attention to safety on the part of each employee. Safety sensitivity training was added in fiscal 2004, serving to improve sensitivity toward safety issues. Increasing sensitivity to hazards will not only prevent work-related accidents and increase operational safety, but will also prevent environmental incidents.

As a result of these endeavors, accidents resulting in lost worktime during fiscal 2004 were zero, while there were two accidents not resulting in lost worktime, which is better than the average in the chemical industry.

### ■ Occupational Health Programs

Shin-Etsu provides employees with regular physical examinations, and has made improvements to the working environment to prevent occupational illnesses. Mental health support is also available.

## Proper Handling of Chemicals

Many chemical substances are harmful to the environment and people's health and are therefore subject to a variety of laws and regulations. Shin-Etsu utilizes a number of chemicals as raw materials in its manufacturing processes. Accordingly, we adhere closely to laws and regulations regarding chemical substances. At the same time, we implement a number of safeguards and exercise close control over the chemicals we use to prevent discharge into the environment or accidents during handling.

We report on manufacturing volumes of New Specific Chemical Substances\* and Small Amounts of New Specific Chemical Substances\* in accordance with the Industrial Safety and Health Law and the Law Concerning the Examination and Regulation of Manufacture, etc., of Chemical Substances. As prescribed under the PRTR Law\*, we participate in the self-management program of the Japan Chemical Industry Association. Moreover, our Naoetsu and Kashima plants are cooperating with the national and prefectural governments' pilot program, implementing systems to report accurately and simultaneously reduce the release of specific chemical substances through closed system manufacturing facilities, and installing incineration equipment for gaseous emissions.

During fiscal 2004, the Naoetsu Plant installed facilities to recover chloromethane and VOC generated during the cellulose manufacturing process. These can then be reused as raw materials. The introduction of these facilities serves not only to significantly reduce the release of chloromethane into the atmosphere, but also to recover energy and salt water used as a raw material.

To ensure safety and environmental protection through proper handling of chemical substances, we have implemented a Material Safety Data Sheet (MSDS) system. We prepare an MSDS for each product, and, to aid safety and environmental protection, provide them to customers and employees. We receive MSDSs from suppliers of raw materials, and use them in practice for proper handling by employees.

We also prepare Yellow Cards as safety and environmental measures during the transportation of chemical substances, and they are handed to truck drivers in case of an emergency during transportation.

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

\* Small Amount of New Specific Chemical Substances  
These are new specific chemical substances that are subject to the reporting requirements of the two laws mentioned above, but which are produced or handled in small amounts.

\* The PRTR Law is the Law Concerning Reporting, etc. of Release to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management.

### Change in Activities Relating to Control of Chemical Substances

(Number of cases)

Fiscal year	'00	'01	'02	'03	'04
MSDSs prepared	7,000	8,000	8,282	9,461	12,775
Yellow Cards issued	120	178	118	108	193
Substances subjected to PRTR notification requirement	64	62	66	115*	79
New Specific Chemical Substances	535	576	588	651	682
Small Amount of New Specific Chemical Substances	5	23	11	11	37

Report to industry group on the status of self-management

Total number of cases regarding the Law Concerning the Examination and Regulation of Manufacture, etc., of Chemical Substances, and the Labor Safety and Sanitation Law

Total number of cases regarding the Law Concerning the Examination and Regulation of Manufacture, etc., of Chemical Substances, and the Labor Safety and Sanitation Law

\*The number of chemical substances subject to PRTR notification temporarily increased as a result of revisions implemented from fiscal 2003 to the minimal quantity required for notification from five tons to one ton.

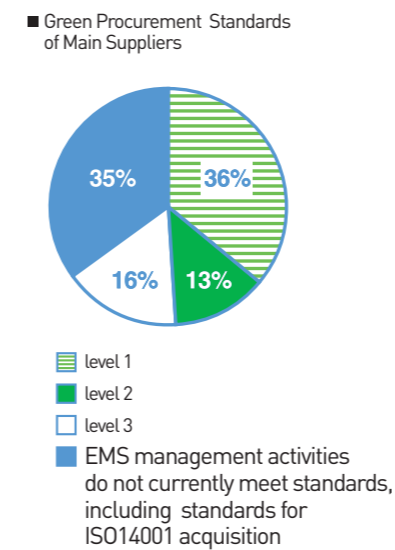
# GREEN PROCUREMENT

## Policy

The Shin-Etsu Chemical Group promotes business activities that are friendly to the global environment. Though we have previously focused efforts on green purchasing of office supplies, from fiscal 2004 Shin-Etsu ramped up efforts to prioritize the use of low environmental impact raw materials and services in our manufacturing activities as well.

Our fundamental policy regarding procurement is presented on our Web site, and we request all related parties to become familiar and cooperate with the policy.

## Activities

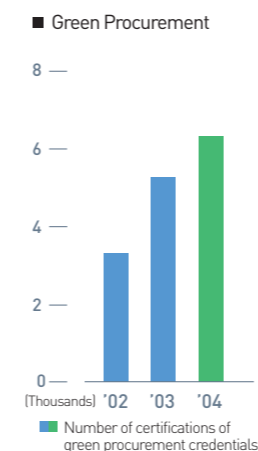


Shin-Etsu has formulated "Green Procurement Standards" for all materials needed in our manufacturing activities, including primary materials as well as packing and other auxiliary materials. We are notifying suppliers of the standards. In its business dealing from this time forward, Shin-Etsu will prioritize procurement from suppliers that are actively implementing environmental protection activities. The following graph shows the number of companies among Shin-Etsu's primary 740 suppliers that had acquired ISO 14001 certification as of August 31, 2005. We will continue to promote enlightenment regarding environmentally friendly initiatives.

(Supplier evaluation standards)

1. The supplier has acquired ISO 14001 certification
2. The supplier intends to acquire ISO 14001, and has a plan with an inspection institute to acquire certification within two years
3. Points 1 & 2 above do not apply, but the supplier is developing its own environmental management activities (with established policies, evaluation standards and a responsible organization)

## Responses to Green Procurement Surveys



In preparation for the introduction of the RoHS and WEEE directives in the EU, customer requests, particularly from customers in the electronics industry, for the certification of our green procurement credentials have been rapidly increasing.

As a materials manufacturer that supplies a broad range of products to client companies in diverse industries, Shin-Etsu responded to surveys from individual customers regarding each of the products in question. In fiscal 2004, we responded to 6,254 surveys.

## Aiming to Provide a Pleasant Work Environment

Shin-Etsu has introduced a personnel system that empowers all employees to attain self-actualization and to shape their career development. At the same time, we take a variety of measures to create a pleasant working environment and to help employees achieve abundant lifestyles.

### Personnel System

#### ■ Implementing a Performance-Based Personnel Evaluation System

Shin-Etsu has introduced a performance-based personnel evaluation system. Challenging themselves to achieve high targets and having their compensation reflect the fruit of their efforts is serving to boost employee motivation.

In order to manage our personnel system in a fair, open and appropriate manner, we notify all employees of personnel evaluation standards. All management staff undergo personnel reviewer training to ensure that evaluations utilize uniform standards.

Our system mandates that the reviewers and personnel being evaluated meet for interviews twice per year to assure that the intentions of both sides are being clearly communicated.

#### ■ Utilizing Communication Sheets

Communication sheets are drawn up between supervisors and employees who work under them. These sheets serve to mutually confirm supervisor expectations and employee requests at the time of interviews, set half-year goals and provide feedback on results, and are utilized as a tool to help employees further develop their abilities.

#### ■ Training and Education System

The Shin-Etsu Group provides a training and education system designed to support all employees in their efforts to enhance their abilities.

	Education by job classification	Special training	Professional education	Safety education	General education	Six Sigma education
Upper Level Management	Upper level management training				Management mental health education	Black belt training Green belt training
Mid Level Management	Office transfer support Mid-level management training		Patent training (outside training)			
Supervisors	New management training	CEOs 40s Program (outside training)	Cross-cultural training	Supervisor education		
	Office transfer support	Study abroad system (two years)	Linguistic training			
Regular Employees	Junior leader training			Occupational health Special safety training Basic education		
	New employee follow-up training	Auditing student system (one year)				
	New employee training	University advancement system		New employee education		

■ Companywide  
□ Planet or Office

#### ■ Auditing Student System

Shin-Etsu established an auditing student system in 1962. In this system, designed to aid mid-level employees upgrade their skills, about 10 employees chosen from among several operators and others at plant manufacturing sites are sent to learn at university for one year. In the 43 years since this system was implemented, 459 employees have completed the program and function as leaders at their respective job sites.

Tama University President Iwao Nakatani, as part of our efforts to groom executive candidates. Those who attend the courses apply the knowledge gained by establishing project teams throughout the Company.

#### ■ Career Development Support System

In order to support individual career development, we offer correspondence courses, support for online learning courses, study abroad and other educational programs, and bonuses to employees who obtain official certifications.

#### ■ Participation in CEO 40s Program

Mid-level employees are sent to "CEO 40s Program," conducted by

### Respect for Human Rights

#### ■ The Human Rights Enlightenment Promotion Committee

Shin-Etsu respects the character and human rights of all individuals. To help accomplish this, the Human Rights Enlightenment Promotion Committee implements initiatives to foster work environments free of racial, gender and other forms of discrimination where employees can work 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 in an effort to raise personnel awareness of human rights.



Human rights training

### Benefits

#### ■ Bullet Train Commuting Benefits

Shin-Etsu has allowed commuting by Shinkansen bullet train at Company expense since 1989. This allows more employees to own houses, and enables personnel who are reassigned to headquarters from business locations in Gunma and Fukushima prefectures to transfer without changing their lifestyles. As of August 2005, 70 employees were taking advantage of this Company offer.

#### ■ Accumulated Holidays

Employees are granted a certain number of annual paid holidays in accordance with labor regulations. In the event that those holidays are not taken, they are treated as accumulated holidays, which carry over to the next year and may be utilized as family-care leave days or as days off for injury or illness.

#### ■ Child-Care and Family-Care Leave

Shin-Etsu has established child-care and family-care leave systems for personnel who need to temporarily leave their positions for child-care and nursing-care purposes.

Our child-care leave system permits employees to take leave up to 18 months in cases where parents are unable to secure places for children in nursery schools. Since the program was created, 100% of female personnel eligible to take child-care leave have done so.

Employees are allowed to take off 93 days per family member requiring nursing care. We also allow employees reduced working hours for nursing-care purposes.

#### ■ Other Systems

In the event of the death of an employee, Shin-Etsu has set up a scholarship system to support the life of surviving children and family members. Because the Company has group long-term accident and indemnity insurance, workers may receive a portion of their salaries should they become unable to work due to long-term illness or injury.

In addition, Shin-Etsu has established asset-building schemes, a shareholding system, and a mutual aid society to provide support for weddings, births or sudden hospitalizations of family members.

### Health Management

#### ■ Health Management Structure

All business locations have a medical treatment office in order to support employee health. Employees may receive health checkups and advice, as well as mental health care at the medical treatment offices.

Physical fitness promotion committees have also been established at all business locations, and work together with the medical treatment offices to conduct physical checkups, seminars and events to improve physical strength.

Shin-Etsu has also set up a family health consultation office to support the health of employees' families.



Mental health care training

While working to satisfy the customers of our products around the globe, we in the Shin-Etsu Chemical Group also constantly work to maintain and build upon our relations of trust with our diverse stakeholders in society. To deepen mutual understanding we keep a broad range of communication channels open for dialogue. Some of these activities are worldwide in scope, while others are unique to certain regions and business locations. A brief introduction of some of our primary communication endeavors during fiscal 2004 is as follows:



Captions:  
 1. Special Olympics athletes (photo courtesy of Special Olympics North America)  
 2. Shintech employee with children hanging a birdhouse  
 3. Shin-Etsu Silicones (Thailand) President Tomisato presenting a contribution  
 4. Mayor of Joetsu City visiting the Naoetsu Plant  
 5. Magnet contest awards ceremony  
 6. Interns at the Gunma Complex



## Global Volunteer Activities

Shin-Etsu personnel at our plants and business establishments around the world are active participants in road, park and river cleanup initiatives in neighboring communities, as well as in blood donation drives. We also contribute to the safety of community members through joint disaster prevention training in cooperation with local fire departments, and traffic safety programs.

Staff of the Shin-Etsu Chemical Group's Nagano Electronics Industrial Co., Ltd. served as volunteers at the 2005 Special Olympics World Winter Games, held in Nagano, Japan in February and March 2005. They did a great deal of support work behind the scenes, helping to make the event a tremendous success by taking charge of such activities as driving competitors to and from ski slopes, skating rinks and other arenas.

Shintech Inc. in the U.S.A. contributes to Habit for Humanity housing construction projects, both financially and through volunteer action to support low-income families with affordable housing. The staff of the Louisiana Plant of Shintech Inc. is also involved in wild bird protection initiatives taken up by the local chapter of the 4H Club nationwide youth education group. During 2004, Shintech staff taught children in woodwork classes to build birdhouses.

## Support of Charity Organizations

Shin-Etsu supports a number of organizations involved in disaster relief, developing nations, environmental preservation and other activities.

Responding to large-scale natural disasters in recent years, including the Chuetsu Earthquake in Niigata Prefecture and the earthquake and tidal wave on Sumatra in 2004, as well as hurricanes in the southern U.S.A. during 2005, the Shin-Etsu Chemical Group and its employees have made donations to the Red Cross Society and other disaster relief organizations.

Since 2003, Group company Cires, S.A. of Portugal has participated in the *Aquaplastics* 2005 NGO project to provide water supply equipment to African nations through online donations. In 2004, Shin-Etsu Silicones (Thailand) Limited made contributions to six schools in its surrounding communities on the occasion of its opening ceremony. More recently, Shintech Inc. has contributed to the Lake Jackson Historical Museum in Texas, and has also donated construction materials for the building of a community house in Freeport, Texas. Through such endeavors, the Shin-Etsu Group supports unique social and cultural activities around the globe.

## Interaction with Local Governments and Communities

Shin-Etsu participates in festivals and events hosted by local communities surrounding plants and business offices, including the Naoetsu Plant, Takefu Plant and Asia Silicones Monomer Limited. In Thailand, the Shirakawa Plant of Shin-Etsu Handotai Co., Ltd. and Shin-Etsu PVC B.V. in the Netherlands invite local residents and children to plant tours. Through these and other activities, Shin-Etsu promotes friendly interaction with local communities near its operations worldwide.

In accordance with the large-scale mergers of townships and cities during the Heisei period, the town of Kubiki in Niigata Prefecture, where the Naoetsu Plant is located, merged with Joetsu City as of January 1, 2005. Accordingly, the Mayor of Joetsu City came together with city employees for a first tour of the Naoetsu Plant on May 18, 2005. On that day, the Mayor and the Plant Manager were able to share a lively exchange of opinions, helping to deepen the mutual understanding between the company and local authorities

## Contributions to Local Communities Through Educational Support

Shin-Etsu works together with local communities where its plants and business offices are located in initiatives to enhance and improve educational environments, in an effort to promote greater understanding of our business activities and to build stronger relationships.

The year 2005 marks the 31st year since the Naoetsu Plant began hosting a summer school program for elementary school students at local facilities. It is also the 11th year of the magnet contest hosted by Fukui National College of Technology with backing from our Takefu Plant. These programs demonstrate the manner in which Shin-Etsu works to establish firm roots in local communities over long periods of time. We also continue to receive university and technical college interns at our plants and business offices.

Overseas, Shintech in the U.S.A. and Shin-Etsu Chemical Group companies in Malaysia have established scholarship programs to contribute to the nurturing of future leaders in their respective countries.

## Asbestos Use

The Shin-Etsu Chemical Group has long complied with all regulations and directives from responsible governmental bodies. Though Group companies Shin-Etsu Polymer Co., Ltd. and Nissin Chemical Industry Co., Ltd. manufactured products that contained asbestos (chrysolite and amosite) until 1986 and 1983, respectively, production of those products has ceased and Shin-Etsu has not received any reports of adverse health effects from residents of communities surrounding the companies' plants, or from Group employees or retirees. Both companies have posted details

concerning the issue on their home pages to promote greater public knowledge.

Asbestos was also previously used in the manufacturing process at the Naoetsu Plant, and Shin-Etsu has currently received no reports of adverse health effects. Though certain Shin-Etsu Chemical Group business complexes use asbestos for insulation purposes, we are working to steadily remove asbestos while taking measures to prevent dust, and plan to completely replace its use with other materials.



The Shin-Etsu Chemical Group is engaged in a variety of environmental conservation activities, with each Group company formulating environmental policies relevant to its business fields and based upon our Environmental Charter, which was implemented in 1998.

This year's Environmental and Social Report features environmental management endeavors at Shin-Etsu Handotai Co., Ltd., Nissin Chemical Industry Co., Ltd., and JAPAN VAM & POVAL CO., LTD. We have also included important data concerning environmental impact at Group company plants, and introduced daily environmental activities at each company.

## Shin-Etsu Handotai



Fumio Akiya, President

### Environmental and Safety Management at Shin-Etsu Handotai

Shin-Etsu Handotai (SEH) engages in the semiconductor wafer business as a primary subsidiary of the Shin-Etsu Group, supplying silicon wafers and other products to semiconductor device manufacturers from its production sites around the world. SEH holds the world's top share of the market for semiconductor wafers.

While expanding such global business activities, we engage in corporate activities with

environmental management as one of our most important management issues, based on our environmental policies. Striving to constantly improve our environmental systems, we take an integrated approach to safety, environment and health based on related laws and regulations, customer requests and internal policies governing environmental preservation and management.

### Fundamental Philosophy Behind Environmental and Safety Management

By producing semiconductor silicon and compound semiconductors, the "gifts of the earth to mankind," SEH aims to contribute to the development of an electronics-rich society, or a silicon society, through the stable supply of ultra high quality wafers to users around the world.

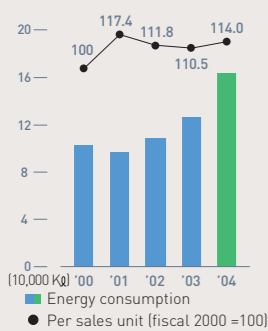
To achieve this objective, SEH has established a philosophy of engaging in environment- and people-friendly corporate activities vital to the

creation of a sustainable society, desired the world over. We have positioned environmental and safety management as a foremost management priority.

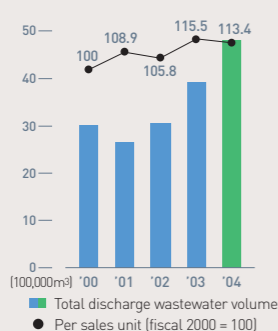
#### Company Information

Headquarters: Marunouchi, Chiyoda-ku, Tokyo  
 Established: March 1967  
 Main Plants: Annaka-shi, Gunma; Nishi-Shirakawagun, Fukushima; Echizen-shi, Fukui; Jyoetsu-shi, Niigata  
 Business: Manufacturing and sales of high purity semiconductor silicon and compound semiconductors

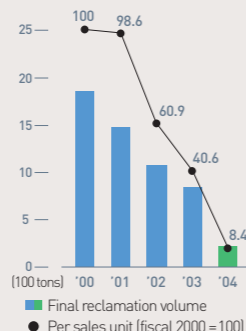
#### Energy Consumption (Crude Petroleum Equivalent)



#### Total Discharge Wastewater Volume



#### Final Reclamation Volume



### Environmental Management Benchmarks

The production of silicon wafers requires highly purified silicon, energy and other resources. The main themes of environmental management at SEH are resource conservation, energy conservation and appropriate waste management. The following is an introduction of the key benchmarks used for environmental management.

### Environmental Management Structure

SEH has set up a Safety & Environmental Control Committee, headed by a director, to deliberate and decide on items pertaining to environmental and safety management. At the start of each year, the committee formulates environmental and safety management plans that function as shared

guidelines throughout SEH-group. Based on these guidelines, each plant collaborates with the plants and offices of Shin-Etsu Chemical, and closely follows the laws of their respective countries when engaging in activities. The performance of each plant's environmental and safety management activities are reported

monthly to the Safety & Environmental Control Committee, and also confirmed in an environmental and safety audit once a year, in an aim to improve and invigorate SEH.

### Environmental Management Structure

#### Safety Programs

SEH maintains safety and the environment within its facilities through preventive safety committees. We also adhere to the Hazard and Operability Study (HAZOP) method and

risk assessment methods as we prioritize the improvement of facilities and operational processes. Our periodic safety patrol and safety suggestion programs have also made

numerous contributions to this effort. As a result, the number of injuries resulting in lost time has been zero over the past five years.

#### Safety Achievement: Rate of Worktime Lost due to Injury

Fiscal years	'00	'01	'02	'03	'04
Number of injuries with lost days	0	0	0	0	0
Number of injuries with no days lost	4	2	2	3	2
Total cases	4	2	2	3	2
Rate of lost worktime	1.34	0.71	0.81	1.17	0.74

#### Occupational Health Programs

SEH provides employees with regular health checkups, promotes the maintenance of health among employees and has made improvements to the working environment

to prevent occupational illnesses. We are also making positive advances in the area of mental health, providing support for care of the mind.

### Energy Consumption

In its production plants, SEH uses electricity and heat as sources of energy in various manufacturing processes.

Energy consumption in fiscal 2004 rose in accordance with greater production volume to 164,000 kiloliters in crude oil equivalents, an increase of 3% per unit of sales from the previous fiscal year.

### Wastewater

Our plants use two kinds of water. One is used in product manufacturing and for washing, while the other is employed for cooling down manufacturing machinery and other cooling equipment. Our plants release such water into rivers after appropriate treatment.

Though the volume of wastewater has increased along with higher production volumes over the past few years, we are obtaining good results in efforts to cut

wastewater through the reuse of pure water.

### Waste Management

We are promoting the recycling and reuse of waste generated in manufacturing activities while reducing waste volume. As a result of efforts to Reduce, Reuse and Recycle waste, final waste disposal in fiscal 2004 totaled 220 tons, a reduction of over 600 tons compared with the previous fiscal year.

Nissin Chemical Industry

“Safety first” management is the foundation of environmental management



Yoshiyuki Miyazawa, President

Company Information

Headquarters: Kitago, Echizen-shi, Fukui  
 Lot Area: Approximately 92,000 m<sup>2</sup>  
 Business: Manufacturing and sales of polyvinyl chloride (PVC)-based modified resins, assorted synthetic resin emulsions, silicon-based modified resins, hot-melt adhesives and acetylenic chemicals

Nissin Chemical Industry Co., Ltd. (Nissin Chemical) was Nissin Chemical established in 1955 as a joint venture of Chisso K.K. and Shin-Etsu Chemical Co., Ltd., engaged in the manufacture and sale of functional plastics. The company had a new beginning in 1965 as a wholly owned subsidiary of Shin-Etsu Chemical, and commenced manufacturing and sales of vinyl acetate, acrylics and other emulsion products in 1975.

In terms of environmental management, Nissin Chemical has a number of production facilities that handle high-pressure gas and hazardous substances, and therefore not only aims to conduct operations with an emphasis on safety first, but has also established safety first as a basic management policy and calling.

Though our headquarters are located in an industrial area, there is a JR Rail line on the east side, a river to the west and a road on the north side, with many people living nearby. Nissin Chemical has focused on building good relations with stakeholders through dialogue and exchange, participates in river cleanup activities with local citizens, and conducts regular plant tours with members of a local environmental NPO dedicated to beautifying the Hino River. We also work to promote understanding of our company through activities such as inviting representatives of local citizens and local regulatory agencies to participate in our disaster prevention training, which is held every October.

Nissin Chemical is working positively for environmental protection. One example is the gas recovery equipment we have set up at facilities in order to meet emissions standards, which now enables us to utilize an off-gas combustion system. The company is also in the midst of construction of additional water treatment facilities, which are being systematically upgraded in accordance with increased production of main products.

Nissin Chemical is also focusing efforts on strengthening eco-products. Sales of water-based Vinyblan emulsions have been particularly strong, with applications rapidly diversifying due to their ability to convert solvents to give them water-like properties.

Demand for acrylic-based emulsions is expanding for use in automobile seat back-coatings, while PVC-based emulsions are seeing growth in applications for surface treatment of PVC wallpapers, which are used in approximately 80% of homes and offices. In addition to these, inquiries are on the rise for non-solvent water-based products that are environment friendly, such as hot-melt adhesive, and ofline and surfynol, which are widely used as additives in water-based coatings.



Mr. Ikeda, Plant Manager



Our headquarter plant has been operating accident free for a record 3.7 million hours



We keep carp at an in-plant pool that serves as the portal for release into rivers to help monitor wastewater in conjunction with instruments



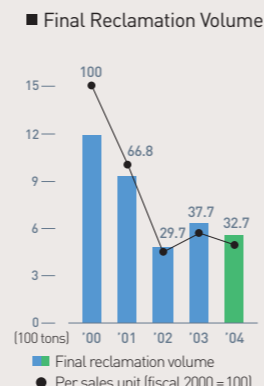
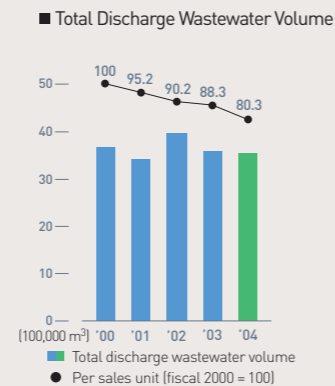
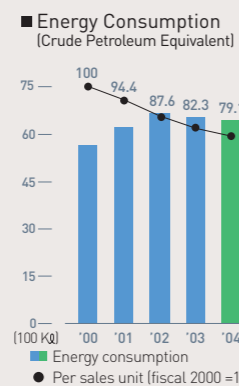
Off-gas and waste liquid incinerator



Expanded wastewater facilities under construction



Mr. Kobayashi, General Manager of the Environmental Protection Engineering Department



Environmental protection activities include running safe operations and aiming to improve energy efficiency. The company is moving forward with the introduction of energy-saving high-efficiency motors and inverter-method power systems in its manufacturing facilities. With the aim of enhancing safety and decreasing logistics-related risks, delivery of raw

material PVC monomer to Shin-Etsu Chemical's Kashima Plant is consigned to JR Freight Rail Company from JR Kamisu Station to Minami-Fukui Station.

A monthly meeting is held to bolster communication with Shin-Etsu Chemical's neighboring Takefu Plant. At the meeting, the companies exchange information and share

know-how, and actively strive to meet customer needs for green procurement. In addition, we are making advances in the recycling of sludge and other industrial waste for reuse as road materials and raw materials in cement, part of our efforts to reduce the amount of waste for final disposal.



Tanker truck for use of integrated logistics system

JAPAN VAM & POVAL CO., LTD.

JAPAN VAM & POVAL CO., LTD. (JVP) is a company specialized in vinyl acetate and POVAL, and provides unique products and services through comprehensive activities from development to manufacturing and sales.



Koichi Okamoto, President

Unitika Ltd. and Shin-Etsu Chemical have operated collaborative vinyl acetate and POVAL businesses since 1968, and merged the sales divisions and manufacturing subsidiaries of these respective businesses to form JVP in May 2002. JVP got a new start as a wholly owned subsidiary of Shin-Etsu Chemical in April 2005.

Nearly all of our manufacturing facilities operate on a continual basis except during regular biannual servicing, and we believe that preventing accidents is the foundation to environmental preservation and safety. Under a motto of "No injury to self or others," departments hold 30-minute long meetings at the start of each work shift, which all employees take turns leading on a rotational basis. This is designed to help employees avoid feeling stuck in a mere ritual, so that employees can take up their work with a sense of refreshment every day.



Osaka Bay is on the north side of our plant at headquarters. As part of a petroleum complex, oversight of equipment safety and environmental management are essential activities.

Our headquarter plant is located within the Sakai Senboku Rinkai Industrial Complex, and we are a member of this complex that straddles Sakai and Takaishi cities. In addition to conducting collaborative disaster prevention training sessions, we have established a committee to promote vitalization and also take part in activities that involve government organizations.



With a large volume of organic solvents involved in our manufacturing process, we work to maintain equipment and to reuse raw materials and auxiliary materials

Our manufacturing process involves the use of chemical substance facilities and the handling of a large volume of hazardous materials, making disaster prevention measures of the utmost importance. We have ceased the use of air-separating facilities, and our plants are no longer designated as high-pressure gas plants. Nevertheless, the majority of our manufacturing processes utilize hazardous materials. We are strengthening facility inspection measures including flow management and bonding renovations to prevent static electricity, and exercising extreme caution when using fire of any sort. We also maintain an awareness of the daily health of our personnel in order to avoid accidents.

Concerning eco-products, our core product POVAL is a water-soluble synthetic polymer used in a variety of fields including vinylon, films, fibers, paper, adhesives and vinyl acetate



Numerous pipelines run through our facilities. We classify pipelines according to their function, making them easily identifiable.

emulsions. In recent years, POVAL demand is growing for such applications as a suspension agent in PVC resin, and as an ingredient in butyral resin, which is used as an interlayer for automobile windshield glass. In addition, Shin-Etsu's proprietary vinyl carboxylate is used in acrylic rubbers, which are used to strengthen heat resistance of engine gaskets. We are further diversifying our lineup of products that contribute to environmental conservation and safety.



Mr. Uehara, Plant Manager



We use a new model incinerator that doesn't create dioxin to dispose of waste oils and liquids generated at production facilities

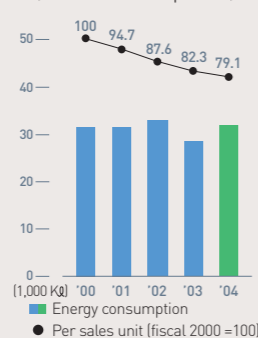
Company Information

Location: Chikko-Shinmachi, Sakai, Osaka  
 Lot Area: Approximately 90,000 m<sup>2</sup>  
 Business: Manufacturing and sales of vinyl acetate, POVAL and vinyl carboxylate

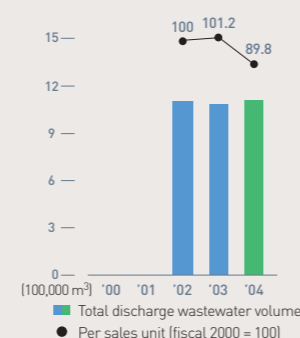


Mr. Mitsumoto, Group Manager of the Environmental Control & Safety Department

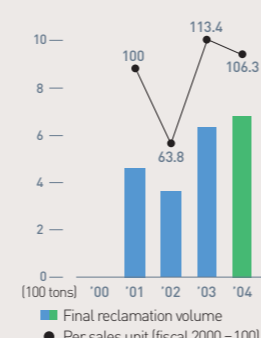
Energy Consumption (Crude Petroleum Equivalent)



Total Discharge Wastewater Volume



Final Reclamation Volume



JVP switched from A-Grade heavy oil to LNG fuel in 1992, and our current level of greenhouse gas emissions related to our energy use has decreased to approximately 60% of fiscal 1990 levels. We also employ our own raw material recovery process through our unique manufacturing techniques. Though environmental impact remained on par with a year earlier due to increased production

volume, wastewater and waste material generated per sales unit decreased 11% and 6%, respectively, in comparison with the previous fiscal year.



At the petroleum complex, foam-extinguishing systems are connected by pipes to each facility and tank. Repetition of disaster prevention training exercises is important.

# HISTORY OF SAFETY AND ENVIRONMENTAL ACTIVITIES

Shin-Etsu has engaged in quality control ever since 1950, quite an early period for such activities. In 1953, we established work manuals and standards and were awarded the Deming Prize. We received praise from Dr. Deming himself, who stated that in terms of the level of statistical quality control, we ranked "the highest in the world."

In 1970, we established the Environmental Control & Safety Department. Since then, we have been actively engaged in environmental management. In 1996, our Gunma Complex obtained certification under ISO 14001, the first achievement of this kind for a major company in the Japanese chemical sector. Currently, each production base of our main subsidiaries and affiliated companies, such as Shin-Etsu Chemical and SEH, has obtained certification under ISO 14001, and we are working to ensure that all our plants, including those overseas, obtain such certification.

## History of Environmental Measures Taken by Shin-Etsu

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

## Environment and Safety-Related Awards

Date	Record	Award-Winning Plant
November 1953	Third Deming Prize	Shin-Etsu Chemical
November 1988	Fukui Prefectural Governor's Award for Excellent Manufacturer of High-Pressure Gases	Shin-Etsu Handotai Takefu Plant
September 1992	International Trade and Industry Minister's Award for Excellent Green Factory	Shin-Etsu Handotai Shirakawa Plant
October 1993	Osaka Prefectural Governor's Award for Excellent Manufacturer Related to High-Pressure Gases	JAPAN VAM & POVAL CO., LTD.
November 1994	Achieved 13,300,000 disaster-free hours, a 3rd class disaster free record	Shin-Etsu Handotai Shirakawa Plant
June 1996	Prime Minister's Commendations for Outstanding Contribution to the National Greening Campaign	Shin-Etsu Handotai Shirakawa Plant
October 1996	Minister of International Trade and Industry Award for Excellent Manufacturing Facility of High-Pressure Gases	Shin-Etsu Chemical Gunma Complex
June 1997	Fire Defense Agency Director General's Prize for superior handling of hazardous materials	Shin-Etsu Chemical Gunma Complex
June 1997	Fire Defense Agency Director General's Prize for superior handling of hazardous materials	JAPAN VAM & POVAL CO., LTD.
November 1998	Superior High-Pressure Gas Production Facility Award from Head of Kinki Bureau of Economy, Trade and Industry	Shin-Etsu Handotai Takefu Plant
July 1999	Superior High-Pressure Gas Production Facility Award from Head of Kanto Bureau of Economy, Trade and Industry	Shin-Etsu Chemical Kashima Plant
June 2000	Fire Defense Agency Director General's Prize for superior handling of hazardous substances	JAPAN VAM & POVAL CO., LTD.
July 2000	Minister of Labor Superior Prize	Nissin Chemical Industry
July 2000	Minister of Labor Superior Prize	Naoetsu Electronics Industrial
November 2000	Superior High-Pressure Gas Production Facility Award from Head of Kinki Bureau of Economy, Trade and Industry	Shin-Etsu Quartz Products Takefu Plant
October 2001	Minister of Health, Labor and Welfare's commendation for industrial hygiene activities	Shin-Etsu Quartz Products Takefu Plant
October 2001	Minister of Economy, Trade and Industry Award for Superior High-Pressure Gas Production Facility	Shin-Etsu Chemical Kashima Plant
October 2002	Thirty-Year disaster-free Special Achievement Award from the Japan Soda Industry Association	Shin-Etsu Chemical Naoetsu Plant
November 2002	Superior High-Pressure Gas Production Facility Award from Head of Kinki Bureau of Economy, Trade and Industry	Fukui Shin-Etsu Quartz Products Co., Ltd.
July 2003	Superior High-Pressure Gas Production Facility Award from Head of Kanto Bureau of Economy, Trade and Industry	Shin-Etsu Chemical Kashima Plant
August 2003	Achieved 7,000,000 disaster-free hours, a 1st class disaster-free record	Shin-Etsu Handotai Isobe Plant
August 2003	Achieved 5th class disaster-free record	Naoetsu Electronics Industrial
July 2005	Excellent Safety and Hygiene Workplace Award from the Minister of Health, Labor and Welfare	Shin-Etsu Chemical Kashima Plant

# CORPORATE PROFILE (As of March 31, 2005)

Date of Establishment	September 16, 1926
Capital	¥117,513 million (US\$1,098 million)
Consolidated Net Sales	¥967,486 million (US\$9,041 million)
Consolidated Net Income	¥93,161 million (US\$870 million)
Number of Employees	2,517 (18,151 on a consolidated basis)
Head Office	6-1, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan Phone: +81-3-3246-5091 Fax: +81-3-3246-5096
Information	Public Relations Department (Same as above)
E-mail address	sec-pr@shinetsu.jp
URL	http://www.shinetsu.co.jp

## ISO 14001 Certification of the Shin-Etsu Group

\* Shin-Etsu Chemical was the first major chemical producer in Japan to acquire ISO 14001 certification.

Company	Certification Date	Certification Number	Certifying Agency
Shin-Etsu Chemical Naoetsu Plant	5/31/1999	JCOA-E-0064	JCOA
Shin-Etsu Chemical Takefu Plant	12/25/1998	JOA-EM0298	JOA
Shin-Etsu Chemical Gunma Complex	7/1/1996	JCOA-E-002	JCOA
Shin-Etsu Chemical Kashima Plant	3/21/2000	JCOA-E-0126	JCOA
Shin-Etsu Handotai Isobe Plant	11/10/1997	TW97/11339EM	SGS UK LTD
Shin-Etsu Handotai Shirakawa Plant	1/21/1997	TW97/09073EM	SGS UK LTD
Shin-Etsu Handotai Takefu Plant	7/24/1997	TW97/10362EM	SGS UK LTD
Shin-Etsu Handotai Saigata Plant	12/16/1997	TW97/11540EM	SGS UK LTD
Nagano Electronics Industrial	2/20/1998	TW98/12319EM	SGS UK LTD
Naoetsu Electronics Industrial	7/28/1998	TW98/13930EM	SGS UK LTD
Mimasu Semiconductor Industry Co., Ltd.	1/19/1998	TW98/11804EM	SGS UK LTD
SEH America	9/25/1998	33486	ABS
SEH Malaysia	5/7/1998	S027001058	SIRIM
SEH Shah Alam	9/20/1999	S034301099	SIRIM
SEH Europe	1/26/1999	E53	NOA
SEH Taiwan	8/24/1999	T992009	LROA Taipei
S.O.E. (Taiwan)	11/18/1998	90 104 8198	TUV
Nissin Chemical Industry	4/24/2000	JCOA-E-0137	JCOA
JAPAN VAM & POVAL CO., LTD. (formerly Shin-Etsu Vinyl Acetate)	1/11/1999	JCOA-E-0042	JCOA
Shin-Etsu Quartz Products Takefu Plant	1/5/2000	35154	ABS-QE
Shin-Etsu Quartz Products Koriyama Plant	6/14/2000	35155	ABS-QE
Shin-Etsu Quartz Products Sasebo Plant	10/21/2002	36806	ABS-QE
Shin-Etsu Quartz Products Kyushu Plant	10/3/2003	37949	ABS-QE
Fukui Shin-Etsu Quartz Co., Ltd.	6/20/2002	36800	ABS-QE
Yamagata Shin-Etsu Quartz Products Co., Ltd.	11/2/2001	36558	ABS-QE
Naoetsu Precision	10/23/2000	JCOA-E-0187	JCOA
Shin-Etsu PVC PVC Plant	7/27/1997	07722-2004-AE	DNVC
Shin-Etsu PVC VCM Plant	9/4/2003	07755-2003-AE	DNVC
CIRES	11/20/2002	02/AMB.070	APCER
SE Tylose GmbH & Co. KG	10/22/1997	01 104 7041	TUV
Shin-Etsu Silicone Taiwan Co., LTD.	6/6/2000	E18050	SGS-Yarsley
Shin-Etsu Electronics (Malaysia) Sdn. Bhd.	6/5/2001	162906	BVOI
Shin-Etsu (Malaysia) Sdn. Bhd.	3/2/2001	S055301031	SIRIM
P.T. Shin-Etsu Magnetics Indonesia	9/28/2000	TW00/18565EM	SGS-Yarsley

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