

# Environmental Management and Community Relations Activities

## VIGOROUS PROMOTION OF ENVIRONMENTAL MANAGEMENT

In August 1998 the Shin-Etsu Group adopted its Environmental Charter, which serves as a guideline for realizing a society capable of sustainable development as the Group vigorously carries out its worldwide business activities. As part of its Environmental Charter, the Shin-Etsu Group has formulated the basic philosophy: "Shin-Etsu Chemical Co., Ltd. recognizes that protection of the global environment is one of the highest priorities for humanity. Our goal is to contribute to the creation of a society capable of sustainable development, by being fundamentally committed to considering the environment in all aspects of our business activities." This basic philosophy contains five action guidelines.

In July 1996 our Gunma Complex acquired ISO 14001 certification, the international standard for environmental management systems. This was the first such achievement for a leading chemicals company in Japan. By March 2001, each of Shin-Etsu's production bases as well as its principal subsidiaries and affiliates, including Shin-Etsu Handotai, had received certification. Each production base is also defining its own environmental policies based on the Environmental Charter. The manufacture of products inevitably results in the creation of by-products, wastewater, or gases. Shin-Etsu works to recycle, reuse and reduce (3R) these to the greatest degree possible.

Also, to respond to various environmental problems ranging from regional to global issues, we have identified themes for reducing greenhouse gases, conserving energy, cutting waste materials, and properly controlling and managing chemical substances, as a part of our continual improvement efforts to reduce the burden on the environment.

### Contributing to the Prevention of Global Warming

While working to conserve energy through the introduction of cogeneration systems at each production base, Shin-Etsu makes efforts to reduce the discharge of such greenhouse gases as carbon dioxide, which causes global warming. Particularly noteworthy, Shin-Etsu abolished the use of chlorofluorocarbon gas in 1995 because it harms the ozone layer.

### Strengthening Our Line of Ecoproducts and Promoting Their Greater Use

Among the diverse range of products that we supply to the market are numerous products that help reduce the burden on the environment. For example, polyvinyl chloride (PVC) is used in the construction and civil engineering fields because of its superb anticorrosive and weather-resistant properties. Among such products, vinyl sash has attracted attention because of its thermal retention and insulating capabilities. When used as a window frame, vinyl sash enables a 50% reduction in energy consumed in heating and cooling processes compared with previous products.

We sell a synthetic pheromone-type pest killer, a revolutionary product that replaces the conventional method of killing pests using insecticides. This product is being used increasingly in apple, peach, pear and plum orchards. Because synthetic pheromone chemicals are made of synthetic natural substances, their toxicity is minimal compared with conventional insecticides and agricultural chemicals. Moreover, the synthetic pheromone does not cause environmental pollution since the decomposition produces only carbon dioxide and water.

Rare-earth magnets are used in the motors of compressors for energy-saving air conditioners. Silicones reduce the environmental burden by modifying the composition of plastics. This use of silicones to modify rubber in tires contributes to

reductions in SOx and NOx by improving fuel efficiency.

### Environmental Action Plan

The Shin-Etsu Group has formulated its Environmental Action Plan to continually and vigorously undertake Groupwide environmental activities.

### Promoting Measures for Prevention of Environmental Pollution

We promote measures to prevent environment pollution, focusing on the preservation of water and air, as well as environmental preservation on a global basis.

### Promoting Energy Saving

Shin-Etsu aims to raise the utilization efficiency of electricity and steam while cutting back on petroleum-based energy.

### Achieving Zero Emissions (Waste Reduction)

Shin-Etsu plans to achieve zero emissions by promoting reductions in the volume of raw materials used and through recycling and reuse of waste.

For more detailed information on our environmental activities, please access our Web site at

<http://www.shinetsu.co.jp/e/profile/kankyo.shtml>.



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## COMMUNITY RELATIONS ACTIVITIES

### Promoting Environmental Activities in Cooperation with Global and Local Communities

An active member of the Japan Chemical Industry Association, Japan Responsible Care Council, Vinyl Environmental Council and other associations, Shin-Etsu participates in Pollutant Release and Transfer Register (PRTR) surveys at the industrial level, promotes the correct understanding of PVC, and encourages the improvement of technologies for recycling industrial waste. In the United States and Europe, the Company works to resolve PVC issues in cooperation with related associations.

Shin-Etsu believes that, in addition to maximizing corporate value, companies also have a fundamental responsibility to be good corporate citizens. Our commitment to this ideal goes beyond mere words and into daily activities at Group companies. We focus both on the big issues that have an impact on the world, and on the small issues that affect local communities. Among some of its regular efforts, Shin-Etsu promotes cleanup activities around its production plants and hosts various community events and festivals. The Group aims to continue being a partner to communities around the world.

### Symposium on Results of Shin-Etsu Environmental Engineering Chair



On April 26, 2002, a symposium was held at Tokyo University to assess the accomplishments of the Global Environmental Laboratory (GEL) chair that Shin-Etsu had sponsored at the university for five years. Established to commemorate Shin-Etsu's 70th anniversary, the chair's principal research themes were on reduction of global warming, solar energy, CO<sub>2</sub> absorption in earth and water, effective resource utilization, and solar batteries and fuel cells.

Participants in the chair's concluding symposium included corporate researchers as well as academics, including Tokyo University faculty members. Opening remarks were given by Professor Hiroshi Komiyama, head of the GEL. Next, Professors Yukio Yanagisawa and Hiroshi Takahashi, both previous occupants of the chair, presented the significant results of research conducted over the preceding five years.

The success of this program highlights Shin-Etsu's ongoing efforts to minimize the environmental impact of business activities, preserve the environment and contribute to the betterment of society.

### Australian Affiliate Simcoa Wins Award for Conservation Efforts



Simcoa Operations Pty. Ltd., a Shin-Etsu Group company based in Western Australia, in September 2002 was awarded a Certificate of Merit for its environmental efforts. The certificate was presented at the Golden Gecko Awards, given by the Western Australia government to recognize excellence and leadership in environmental management in the state's mining

community.

The Golden Gecko Awards are known for their acknowledgement of efforts that go far beyond basic compliance with regulations. Simcoa was presented with the Certificate of Merit in recognition of its measures to protect threatened ecological communities and flora in the area of the company's quartz mine at Moora. Quartz is Simcoa's key raw material in the production of silicon.

The award marked the culmination of Simcoa's collaboration with government agencies and environmental experts. This spirit exemplifies Shin-Etsu's desire to be an active participant in local communities' efforts to preserve the environment.

### Shintech Employees Embody Group's Ideal of Community Action

In the U.S. state of Louisiana, employees of Shin-Etsu subsidiary Shintech Inc. demonstrate the Group's philosophy of contributing to the betterment of society in very constructive ways. In November 2002, prior to the Thanksgiving holiday in the U.S., Shintech Louisiana worked with a local nonprofit agency to organize a food donation drive to benefit senior citizens.

Shintech Louisiana employees are engaged in a number of other community-focused projects as well. Some volunteer their time and skills to work with Habitat for Humanity, a nonprofit organization that builds homes in poverty-stricken communities around the world. Other employees contribute to blood donation drives and programs that educate children about safety.

These activities show Shin-Etsu's drive to be a good corporate citizen. Our mission is carried out at the grass-roots level by our employees in countries around the world.