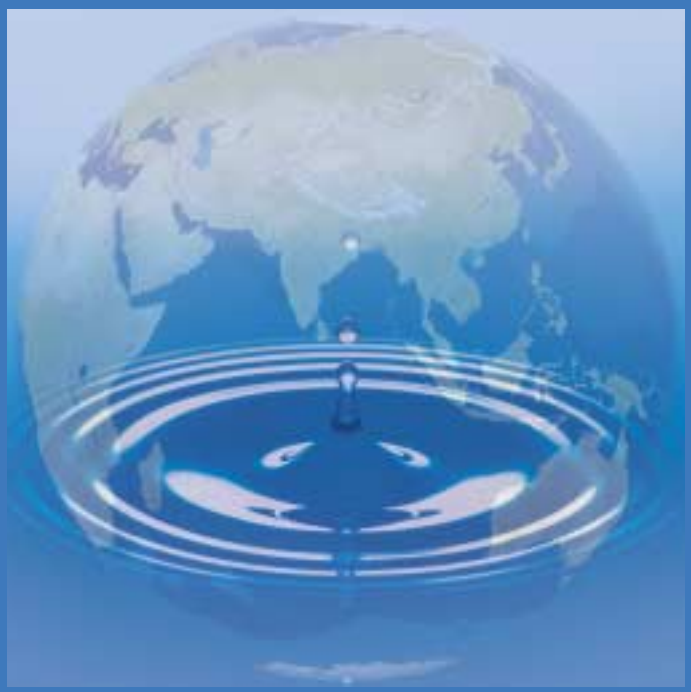
Responsible Care Report

Our Commitment to the Environment, Safety, Occupational Health, and Quality



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MITSUI CHEMICALS, INC.

Catalysis science - key technology for the sustainable development of society

“Magical Power” for Quality Life

In Pursuit of Sustainable Development and Ways to Contribute to Society

In the 21st century, it will be of paramount importance for humankind to find modes of living and commercial activities which are sustainable, in order to create happiness for mankind in a better environment. Although the chemical industry provides a wide range of technologies and materials for society to help create quality life and realize dreams on one hand, on the other hand, some of its products have the potential to affect the environment and the health of living beings if handled inappropriately. It is the mission and responsibility of all chemical companies to maximize the utility of our products while minimizing such risks.

Chemical companies strive to beat the competition, amid the trend competitive toward increasing globalization and a borderless economy, by promoting technical innovations and strengthening their competititive capacities. Against this background, we believe in promotion of the two goals of "harmonization with the environment" and "corporate social responsibility" under our theme of Responsible Care. These will provide a basis for the sustainable development of chemical companies.

Catalysis science is drawing attention as a new-generation technology that can make the possible. In 1958, Mitsui Chemicals became the world's first company to produce polyethylene by the normal pressure process on a commercial scale. Since then, we have been a key global player in the development of catalysts for polyolefin production. In April 2002, we established the Catalysis Science Laboratory, a facility dedicated to comprehensive research into catalysis science. To commemorate its founding, we held the First International Symposium on Catalysis Science in March 2003, which was very well received.

In the petrochemical sector, we will work to become "Strong and Excellent Mitsui Chemicals" under the tripartite scheme of "From naphtha to heavier oil" "From ethylene-based to propylene/aroma-based" "From commodity to specialty". That is to say, we are promoting restrueturing of Osaka Works to a complex based on propylens, regional integration with other industrial sectors such as petroleum refineries, and changing from commodity products to specialty products.

Since fiscal 2001, we have been making company-wide efforts to enhance our initiatives concerning compliance. However, irregularities in safety inspections required under the Japanese High Pressure Gas Safety Law were discovered in some facilities of the Osaka Works in 2003. We immediately announced this fact to the general public and did our best to remedy the problems. We regret the fact that we betrayed the trust of all those parties concerned, such as customers, government authorities, concerned as well as the residents in the neighborhood of Osaka Works, and local community residents. We have committed ourselves to prevent the recurrence of similar errors by taking a full range of measures, including raising the employees' awareness of the importance of verifying one's own safety practices, providing education on legal compliance, and enhancing the management system.

Advocating "harmony with the global environment" in its Corporate Mission, the Mitsui Chemicals Group has been working to accomplish the goal of "caring for environment, safety and quality," one of the basic strategies of our Medium-Term Corporate Plans. In fiscal 2002, we developed a new method of risk assessment for chemical substances discharged from our works, which has enabled more rigorous risk management, and began developing products by the evaluation system for environment-friendliness in combination with a management indicator we call "eco-efficiency". By making these and other efforts, we are positively working to achieve sustainable development.

Always bearing in mind self-management, self-responsibility, and transparent communication, which are essentials to our theme of "Responsible Care", we will be more active in achieving sustainable development.

By issuing this report, we hope that you will deepen your understanding of Mitsui Chemicals' Responsible Care activities and we thank you for your continued support.

February 2004

President
Mitsui Chemicals, Inc.
Hiroyuki Nakanishi

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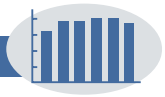


Editorial Policy

This report was prepared with reference to "the Environmental Reporting Guidelines" of Japan's Ministry of the Environment, and the "GRI* Sustainability Reporting Guidelines." The purpose of this report is to familiarize the public with Mitsui Chemicals' environmental vision and activities. We have focused on the corporate social responsibilities and highlighted just the most interesting portions of our activities in 2002 in hopes of creating a readable and educational report. Brief descriptions are also given for a broad range of our unique efforts to promote responsible care (RC) in environmental preservation, process safety and disaster prevention, occupational safety and health, and quality management. We also provide data on our risk management system and RC performance.

We have endeavored to introduce a range of activities to enhance communications with our stakeholders, and to produce a reader-friendly report.

*GRI: Global Reporting Initiative

Scope: Mitsui Chemicals, Inc. and its subsidiaries and affiliates on its premises
Period: April 2002 to March 2003 (some sections cover the period up to October 2003)
Date of issue: February 2004

What is Responsible Care (RC)?

RC encompasses all those activities that implemented by manufacturers of chemical substances implement or involve themselves with in order to act responsibly towards the environment. These activities include improvements and measures are taken in order to preserve the environment, and the health of the general public prevent damage to facilities, and protect the health of all those involved in manufacturing of chemicals.

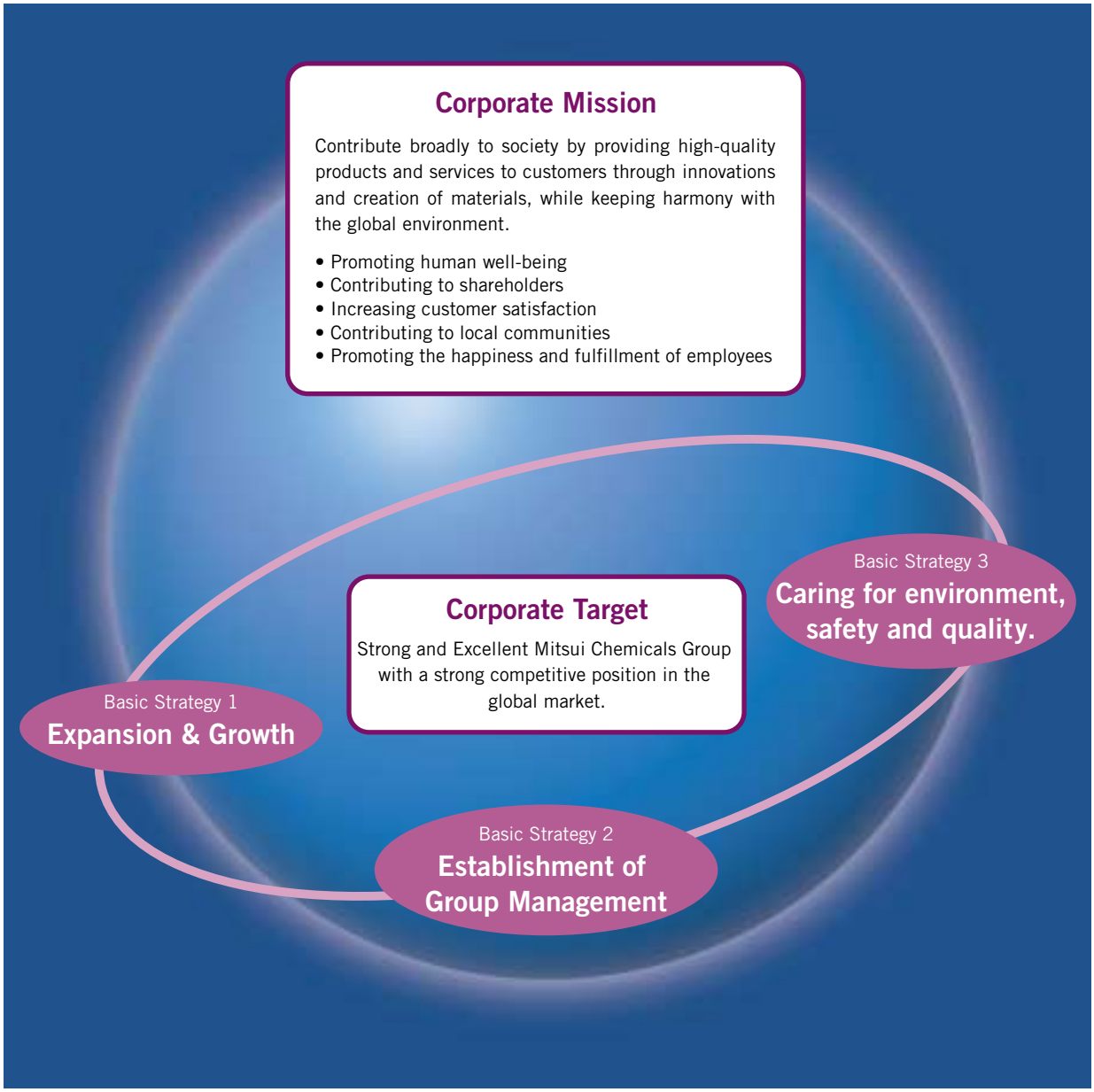
The world's leading chemical companies take part in these activities under the leadership of the International Council of Chemical Associations (ICCA, established in 1990). In our nation, the Japan Responsible Care Council (JRCC) is in charge of promoting the activities. Hiroyuki Nakanishi, president of Mitsui Chemicals, Inc., has served as chairman of JRCC since fiscal 2002.

More information is available on the JRCC's website.

URL of the Japan Responsible Care Council (JRCC)
www.nikkakyo.org/organizations/jrcc/top_e.html

Responsible Care

Corporate Vision



Corporate Action Guidelines

Every officer and employee of the Mitsui Chemical Group, aspiring to see Strong and Excellent Mitsui Chemicals Group with a strong competitive position in the global market acts with integrity and responsibility, following the guidelines as described below.

1. **Environment and Safety** We shall take the initiative in addressing environmental and safety issues to preserve the global environment and secure safety.
2. **Innovations** We shall make our utmost to make technological innovations, considering changes as opportunities.
3. **Customer Satisfaction** We shall supply products and services of the highest quality to meet the needs of our customers.
4. **Coexistence with the Community** We shall pursue activities in collaboration with the community as a good corporate citizen.
5. **Self-realization** We shall endeavor to improve ourselves with the aim of becoming professionals who are recognized in the world business community.
6. **Compliance with Laws and Rules** We shall observe all laws, regulations and our corporate rules and act according to our conscience.
7. **Transparency** We shall attach importance to communication with the outside world and disclose Company information in an appropriate and timely manner.
8. **Increasing Company Value** We shall aim at increasing the value of the Company by adhering to the above Action Guidelines.

Basic Policy Regarding the Environment, Safety, Occupational Health, and Quality

Mitsui Chemicals has been developing business activities based upon a corporate mission stating that, "Contribute broadly to society by providing high-quality products and services to customers through innovations and creation of materials and products while keeping in harmony with the global environment." We are carrying out our business and manufacturing activities within the spirit of RC, based on the recognition that securing environmental integrity and safety is the very foundation of corporate management. We implement this basic policy in relation to "environment", "safety" (disaster prevention, product safety), "occupational health" and "quality".

1. Environment

(1) Contribute to environmental preservation by developing new products and technologies.

(2) Assess and reduce the environmental load of products through their entire life cycle, from product research and development to final disposal.

2. Occupational Health and Safety

(1) Give priority to securing safety, and aim for accident and injury-free operations.

(2) Promote the formation of an appropriate work environment and support a proactive health program for employees.

(3) Implement safety measures and procedures in handling chemical substances to prevent injury or harm to people connected with our activities, such as employees and others related to works and distribution.

3. Quality

Supply high-quality products and services that earn the trust and satisfaction of customers so that customers feel confident when using products for their intended applications.

4. Promoting self-management

Strive for continuing improvements in the environment, occupational health, safety, and quality, beginning with compliance with all applicable laws and regulations based on voluntary adherence to the principles of RC.

Established October 1, 1997
Revised July 1, 2000

Efforts to Achieve Sustainable Development

For a company to achieve sustainable development, three requirements must be fulfilled: 1) Due efforts to preserve the environment must be followed at works and the products must be friendly to the environment; 2) we must contribute to society ; and 3) our business activities must produce economically reasonable profits.

Below is an overview of the current status of Mitsui Chemicals' activities described from these three viewpoints.

In the field of environmental preservation, we have made steady efforts and obtained gratifying results. We have reduced hazardous air pollutants beyond the numerical targets, cut wastes, developed products free from harmful substances, conducted product safety surveys and publicized our data, enacted more stringent safety measures for chemical transportation, accomplished a 10% reduction in specific energy consumption units of CO_2 compared to the 1990 level, and acquired environmental management system certification at all works. This has all been done while complying with the legal regulations on air and water pollution. We have also been developing environmentally friendly products and technologies; we have already launched a wide variety of such products, including the biodegradable plastic LACEA™.

As for social contributions, we have formulated Corporate Action Guidelines for our executives and employees. Their purpose is to ensure a unified approach to securing the environment and safety, legal compliance, coexistence with the communities, and corporate transparency. We are working along these Guidelines to make a significant contribution to society, in cooperation with outside sectors. Our efforts include those to ensure good communications with our stakeholders, such as provision of public-relations magazines at individual works, volunteer activities for weeding at public spaces, cooperation in local athletic meets, provision of Responsible Care reports, and plant tours on an invitation basis. We also make proactive efforts to secure occupational safety and health for our employees and contractors' employees at our plants. We have maintained sound communications with the labor union and provide quality management in accordance with the ISO9001 standards.

We have strived to maintain healthy financial status as a basis for the appropriate conduct of these activities for environmental preservation and social contributions, and have enjoyed steady growth in business performance.

In summary, we are engaged in environmental preservation and social contributions through traditional Responsible Care activities. However, some key concerns about the future are how to incorporate environmental preservation and social contributions in the process of commercial activities; we will be emphasizing these points.

Specifically, scheduled programs include environmental load reductions with eco-efficiency as the indicator, use of environmental friendliness evaluations to promote the development of environmentally friendly products, and introduction of a research management method evaluation system to ensure priority to environmental friendliness from the research phase. We will also work to strengthen and implement our internal system to support these activities.

Through these activities, Mitsui Chemicals is achieving a still higher level of sustainable development

Managing Executive officer: Yoshiyuki Shinohara,
Center Executive, Production & Technology Center

The First Mitsui Chemicals International Symposium on Catalysis Science

In April 2002, Mitsui Chemicals established the Catalysis Science Laboratory, a facility dedicated to comprehensive research in the field of catalysis science, which is of growing importance as a next-generation technology. To commemorate the founding of the Laboratory, we held "the First Mitsui Chemicals International Symposium on Catalysis Science" at the Kazusa Academia Hall in Kisarazu City on March 17 and 18, 2003. In the 21st century, science and technology are becoming increasingly important to true happiness for mankind in a better environment. Catalysis science underlies advances in life science, information technology, nanotechnology and new materials, and the environment.

The symposium took place as the world's first and largest of such international symposia to be sponsored by a commercial corporation and open to all people interested in the relevant fields. Our attitude toward catalysis science appealed to the participants from all over the world and we were able to propose a new way of collaboration among academic, industrial and governmental sectors. The symposium was highly appreciated by scientists, industry, governmental officers, mass media, economic analysts and others.

With the participation of more than 1,100 researchers and scientists, from Japan and abroad, the symposium served as a place of proactive discussions and came to a successful end.

Digests of Lecture from Nobel Prize Laureates

Molecular Catalysis: Today and Tomorrow

Prof. Ryoji Noyori **Nagoya University, Japan**

Chemistry is beautiful, exciting, and beneficial for-mankind.

To maximize the benefits of chemical processes, the establishment of sophisticated chemical conversion processes that conserve resources and energy and are environmentally-friendly is a priority. To continue serving human needs, the chemical industry requires ecochemical industrial technologies. All the types of molecular compounds can be synthesized by organic chemistry, and perfect chemical reactions with 100% yield and 100% selectivity is the target. A production method for formic acid derivatives that uses nontoxic CO_2, which can be used as both solvents and reactants, as a supercritical fluid, and a synthesis method for adipic acid that uses hydrogen peroxide, which generates neither hazardous substances nor useless wastes, as an oxygen resource are examples of vitally important production methods. Following the principle of producing only what is needed, "racemic switch" is required in medicine development for switching from racemic compound medicines to single enantiomeric medicines. Asymmetric hydrogenation technology with a BINAP catalyst has made a great contribution in this field. Our goal is to discover complete and non-wasteful chemical reactions, not only for more efficient methods of producing chemicals, but also for creating new materials and new ways of manufacturing materials.

From Supramolecular Self-Organization to Dynamic Combinatorial Chemistry

Prof. Jean-Marie Lehn Louis Pasteur University, France

Supramolecular chemistry is based on "self-organization", the generation of supramolecular architecture by molecules while they recognize each other. Supramolecular chemistry is intrinsically a dynamic chemistry in view of lability of bondings (interactions) connecting molecular components of a supramolecule. Because of its ability to exchange its constituents, a supramolecule can incorporate diversity and a combinatorial concept. By analyzing inorganic self-assembling processes through self-recognition, templating, and interconversion features, a concept of dynamic combinatorial chemistry (DCC) was formulated.

Whereas the conventional combinatorial chemistry is based on simple assembly of library molecules, DCC is capable of realizing a virtual combinatorial library (VCL) by letting library molecules search for all possible combinations by themselves while they are reversibly assembling, and consequently by letting them construct a target substance with the best compatibility in molecule recognition.

The DCC / VCL concept can be applied to organic chemistry as well as biological recognition, catalysts, and materials. A new material "Dynamer" was proposed by applying the concept to polymers. (Supramolecular chemistry: A field proposed by Prof. Lehn in 1978. An assembly system chemistry generating chemical and physical functions not available with individual molecules by assembling numerous basic units represented by molecules.)

Magical Power for Quality Life

At the symposium, lectures on the frontiers of catalysis science were delivered by 10 outstanding scientists, from Japan and abroad, including Professor Ryoji Noyori from Nagoya University, Nobel Prize Laureate and Professor Jean-Marie Lehn from Louis Pasteur University of France, Nobel Prize Laureate

Comment from the only high school student to attend the symposium

I am in my first year in high school, and in the future I hope to go to a science university. One day, my father told me about this symposium, so I decided to attend. All the lectures were in English, so some of them were difficult to understand. However, Professor Noyori's plenary lecture was easy to understand, and very worthwhile. I came from Shizuoka to attend, and just experiencing the atmosphere of a symposium was a real thrill for me. I hope to take part in the second and third symposia and absorb more on different subjects. I also felt that if there were a chemistry symposium for high school students like myself, this would enable us to learn more about chemistry.

Hironori Hara
Science / mathematics course
Shizuoka Prefectural Shimizu-Higashi High School

Environmental Impacts of Mitsui Chemicals

Chemical products are used in so many ways in our daily lives, it is no exaggeration to say that our current lives would be impossible without them.

Mitsui Chemicals is providing materials and goods that meet the growing needs in society for greater diversity and higher quality. Our products are used throughout the human environment, in automobiles, electric/electronic devices, apparel, daily commodities, packaging, buildings, medical/health care and agriculture. Our efforts to make technical innovations are based on a global viewpoint of the sources and uses of our materials.

Total fuel heat (GJ) 81,083,034

Purchased electricity (GWh) 1,202
Purchased steam (thousand tons) 498

Total purchased gases (million Nm³) 327

Purchased raw materials (thousand tons) 4,969

Other purchased materials (thousand tons) 81

Drinking water and sewage water (million m³) 0.7
Groundwater (million m³) 0.7
Industrial water (million m³) 109
Seawater (million m³) 447

Boilers
(Electricity and steam)

Paid electricity (GWh) 137
Paid steam (thousand tons) 820

Paid fuel heat (GJ) 5,308

Manufacturing processes and others

Water management

Products
Quantity (thousand tons) 8,051

CO_2 (tons) 6,022,000
NOx (tons) 4,118
SOx (tons) 783
Hazardous air pollutants (tons) 218
Non-methane VOCs (tons) 7,059
Dust (tons) 329

COD (tons) 1,895
Total nitrogen (tons) 2,058
Total phosphorus (tons) 42

Water effluents (million m³) 523

To sea

External recycling (thousand tons) 52
External final disposal (landfill) (thousand tons) 8

EVOLUE™
(low-density polyethylene)

LACEA™

Film laminates
Cards

Urethane (interiors)

Processors

Processors

Petrochemicals

- Petrochemical feedstocks
- Polyethylene
- Polypropylene

Functional Polymeric Materials

- Elastomers
- Performance dispersions
- Urethane Chemicals
- Urethane resin

Petrochemicals and basic chemicals

Performance materials

- Pure terephthalic acid
- PET resin
- Phenol
- Bisphenol

Basic chemicals

- Hygiene materials
- Semiconductor materials
- Electronic circuit board materials
- Flat panel display materials
- Fine chemicals
- Healthcare products

Functional chemicals Engineered Materials

Processors

Processors

PLAPACS™ Plastic package for charge coupled device

MR series (monomers for high-index spectacle lenses)

PDP module

FILTOP™ optical filter

TPX™
(polymethylpentene)

PET resin

Optical filters for PDP
LC STRUCTBOND

Plant Tour and Opinion Exchange Meeting for Stakeholders

Mitsui Chemicals has been holding a workshop on the Responsible Care Report every year at its Ichihara Works. This year's workshop offered a plant tour for invited stakeholders* to look around the facilities related to the environment. With frank opinions exchanged between the participants and us, the workshop helped them deepen their understanding of the chemical industry as a whole and the environmental loads resulting from its activities.

Ichihara Works, Mitsui Chemicals, Inc.

Ichihara Works Plant Tour and Opinion Exchange Meeting for Stakeholders

Time: 13:30-17:00, August 19, 2003

Place: Ichihara Works, Mitsui Chemicals, Inc.

Participants:

- Mr. Hideyuki Fujisaki (Chairman, Imazu Asayama Area Neighborhood Association)
- Mr. Sadaji Matsumoto (Chairman, Aoyagi Area Neighborhood Association)
- Mr. Takashi Eguchi (Chairman, Fujimi Town Block 1 Neighborhood Association)
- Mr. Mitsumasa Ito (Chairman, Anesaki Getsuyo-kai Society)
- Mr. Hidefumi Kurasaka (Assistant professor, Dept. of Policy Studies, Faculty of Law and Economics, Chiba University)
- Mr. Hikaru Onodera (student of Chiba University)
- Ms. Fusako Kawakami (student of Chiba University)

A plant manager providing an explanation about the aeration tank

The aeration tank for intermediate treatment for sludge processing. Organic matter is decomposed by the action of bacteria that are fed with oxygen.

Wastewater Treatment Facilities

Wastewater from the manufacturing processes is passed through an oil separator to withdraw oils, then passed through a neutralization tank and an aeration tank (pressurized floatation apparatus, shown in the left photograph) and transferred to a mixing tank. These apparatuses constitute an activated sludge processing system to decompose organic matter by microbial action. After sludge is precipitated in a sedimentation tank (shown in the lower photograph), the resulting clean water effluent is discharge into the sea.

*Stakeholders: Generally refer to people who are influenced by various activities of companies. In the present plant tour at the Ichihara Works, we invited not only residents in the vicinity of the works, but also people of learning and experience and others, who were asked to express their opinions on the environmental loads and environmental preservation activities at the works

The process before activated sludge processing.
The sludge was foamy and odorous.

Downstream from activated sludge processing. The wastewater has been purified so well that carp can live there. The clean water effluent is then discharged into the sea.

An incinerator designed to prevent dioxin emissions.

Incinerator and Dioxin Decomposition Equipment

At the Ichihara Works, we are working to reduce and recycle industrial waste; about 70% of the waste generated goes into efficient use. In fiscal 2000, we began recycling into cement feedstock of ash from the incinerator (photograph above), all of which had been gone into landfill disposal, in order to reduce landfill disposal.

Organic matter is separated from sludge and processed to produce fertilizers. The feedstock has a fertilizer-like odor.

A portion of waste is burnt in a manner that does not produce dioxins.

A proactive discussion took place to exchange frank opinions.

Comments from Stakeholders

Below are the comments from the tour participants.

Mr. Hidefumi Kurasaka

Following the plant tour, I feel that there is room for further reductions in the environmental impact of your activities. I encourage you to promote the utilization of waste heat and to recognize the fact that the activities here, employing a small number of workers, result in great environmental loads. I hope you will also attend to details, such as avoiding the unnecessary idling of your buses.

I encourage you to disclose information about the business activities of Mitsui Chemicals as a whole by clarifying the input-output balance of your environmental impact. This will help the general public understand your environmental efforts.

Regarding the contents of the Report, the GRI Guidelines offer a broader coverage than that of responsible care. I suggest that you broaden the scope of the Report. Additionally, the Report would be more reliable if it also disclosed negative information. I would like you to make more frank disclosure of such information.

I appreciate the eco-efficiency indices you have established independently. I encourage you to work to establish indices that will be used in the whole chemical industry or other industries.

Ms. Fusako Kawakami
Mr. Hikaru Onodera

I have learned how the manufacturing process equipment is designed and operated with an emphasis on environmental friendliness. Unfortunately, I could not understand your explanation about the overall flow of your business operations. You should have provided more detailed information, for example, through what processes you manufacture your products from raw material petroleum and the balance between the petroleum input and the product output (Mr. Onodera)

I was astonished at the large investment in the dioxin processing facility in the works. I think well of your raising carp at the wastewater treatment facility as a “visible” safety management program. (Ms. Kawakami)

Mr. Mitsumasa Ito
Mr. Hideyuki Fujisaki

I think it difficult to disclose negative information in an easily understandable manner because there is much flood of information wherever we go. (Mr. Ito)

I hope you will report in your public relations magazines your voluntary activities that take place periodically, such as the clean-up of industrial roads around the Ichihara Works. (Mr. Fujisaki)

Mr. Takashi Eguchi
Mr. Sadaji Matsumoto

I think it is necessary to raise a proactive campaign through local governments and neighborhood associations to increase the use among the general public of trash bags of biodegradable plastics that are manufactured by Mitsui Chemicals. (Mr. Matsumoto)

I wish you would provide a more easily understandable explanation including a schematized illustration of the entire manufacturing processes for your products. (Mr. Eguchi)

Impressions about the Plant Tour for Stakeholders

Takashi Shimada, Director,
Environment and Safety Division, Ichihara Works

At the Ichihara Works, we emphasize harmony with local residents in operating our works, and we are active in constantly improving the environment. On this occasion, we received many helpful comments from the participating stakeholders, including suggestions for points to examine in routine activities. We fully realize that our efforts and initiatives to facilitate their understanding of the activities at our works are insufficient. We will work to enhance communication with our stakeholders.

Key Issues and Results in Fiscal 2002

With the previous year's efforts in mind, we set forth 17 key issues in efforts for responsible care (RC) in fiscal 2002 and have worked to accomplish each of these goals.

Strategic issues and goals	Measures addressed
1. Zero labor accidents with emphasis on "workplaces" and "humans" Goal: ● Zero labor accidents	**1)** Promoting safety focusing on "humans" and "workplaces" **2)** Enhancing efforts to remove hazards at workplaces **3)** Exercising work safety management in cooperation with Mitsui Chemicals Engineering Co., Ltd. (MCEC) **4)** Promoting safety at contractors **5)** Introducing an occupational safety and health management system **6)** Taking measures against risks of pinch and roll in moving equipment
2. Enhancement of activities for zero accidents Goal: ● Zero accidents	**1)** Identifying and eliminating hazards systematically **2)** Taking measures against explosive air-chemical mixtures
3. Preparation and implementation of environmental plans aiming at sustainable development Goal: ● Achievement of numerical targets for environmental impact reduction ● Implement environmental preservation activities efficiently	**1)** Drawing up and implementing a company-wide environmental load reduction plan **2)** Establishing a framework for environmental activities in environment-related businesses **3)** Proposing ways to use information on environment-related costs and effects **4)** Establishing and operating a risk communication system based on the PRTR Law
4. Enhancement of mental health activities Goal: ● Decrease in the number of employees with mental health problems	**1)** Improving mental health education programs **2)** Enhancing cooperation with mental health care experts
5. Enhancement and improvement of workplace management system to improve the level of occupational health Goal: ● No significant differences among business sites	**1)** Identifying and reducing risks associated with hazard factors at workplaces **2)** Making use of information from the Occupational Health Forum **3)** Ensuring the smooth transfer of information among business sites
6. Enhancement of safety measures against chemical substances Goal: ● Ensure that society is aware of the safety of chemical substances	**1)** Responding appropriately to the endocrine disruptor issue **2)** Conducting surveys of high -volume products in cooperation with other manufacturers of similar products
7. Enhancement of quality management education for prevention of PL-related accidents and for customer satisfaction Goal: ● Zero PL-related accidents	**1)** Establishing and operating a quality management education system **2)** Ensuring the participation of all employees in legal compliance education program
8. Appropriate operation of product safety management system Goal: ● Zero PL-related accidents	**1)** Implementing PL risk inspection and taking appropriate measures for products already on the market **2)** Ensuring the appropriate implementation of safety evaluation of newly developed products **3)** Ensuring compliance with legal standards for products to be marketed abroad
9. Reduction of claims and complaints Goal: ● Reduce claims by 30% compared to the previous year ● Reduce complaints by 10% compared to the previous year	**1)** Enhancing inspections and guidance for contractors (manufacturing and logistics) **2)** Enhancing efforts to prevent recurrent claims and complaints
10. Security of "environmental preservation" in product disposal Goal: ● Spread appropriate disposal method of products at customer sites	**1)** Providing technical advice upon customers' request
11. Security of "environmental preservation" in international trade of chemical products Goal: ● Comply with the UNEP prior approval of export system ● Comply with the UNEP Codes of Ethics	**1)** Controlling the export of strategic products etc. strictly by the Export Trade Control Law
12. Promotion of RC activities at subsidiaries and affiliates Goal: ● Conduct RC activities as scheduled by annual plans	**1)** Holding regular RC meetings with subsidiaries and affiliates **2)** Providing assistance, audit and guidance concerning RC activities based on annual plan at subsidiaries and affiliates
13. Actions in emergencies	**1)** Establishing an emergency system against risks
14. Security of environmental preservation in logistics	**1)** Taking immediate actions in the event of accidents
15. Security of environmental preservation in research and development	**1)** Establishing an evaluation system firmly
16. Security of environmental preservation in international operations	**1)** Holding technical evaluation review meetings **2)** Close control of the export of strategic products etc.
17. Improvement of social trust Goal: ● Disclose information on environmental conservation efforts to the public and attain high evaluation	**1)** Improving public relations magazines, including the RC Report **2)** Publishing on regular basis

Rating (percent performance): ● 95% or more, ● 70 to 94%, ● less than 70%

Results	Rating	Refer to
1) Dialogues with President and competent executives, safety dialogues with managers of plants, and workplace safety inspections were conducted.	●	17
2) Programs were implemented as scheduled in annual plans (e.g., campaign for prevention of accidents of pinch and roll in machines).	●	27
3) Safety inspections, including MCEC, were conducted. Integral efforts were promoted through dialogues with plant managers, workplace patrols and education.	●	17
4) There was improvement in voluntary safety management by the Disaster Prevention Council, a cooperative organization of contractors for disaster prevention (labor accidents at contractors decreased).	●	38
5) OHSAS18001 certification was acquired by the Nagoya Works in June 2002 and the Ichihara Works in March 2003. The three other plants will be certified in fiscal 2003.	●	17
6) Measures were taken at individual plants in accordance with the fiscal 2002-2003 investment/financing plan.	●	—
1) Inspections on toxic gas leakage risks were conducted at individual plants.	●	26
2) Inspections were carried out at 188 units under the second-term plan. The entire program was completed.	●	
1) Reductions were achieved on schedule on the basis of the voluntary guidelines for reducing air pollution load and the waste reduction plan.	●	23,24
2) Approaches to creating and expanding environmentally friendly products and businesses were drawn up.	●	20
3) Rating criteria were proposed and will go into actual use in fiscal 2003.	●	20
4) Contact personnel was appointed at individual works in preparation for PRTR-related inquiries.	●	23
1) General, hierarchical and other educational programs were implemented as scheduled.	●	28
2) Selected employees were trained by external industrial counselors to serve as internal mental health counselors.	●	
1) Site maps were prepared and a risk reduction system was established. Remedial efforts are ongoing.	●	28
2) Reporting in the Forum was standardized and contents were improved. Efforts to make use of the information was somewhat unsatisfactory.	●	
3) A system was established and smooth transfer of information was being promoted.	●	
1) Appropriate actions were taken in cooperation with related industries.	●	29
2) As the leading manufacturer of methacrylamide, Mitsui Chemicals reported evaluation results at an OECD congress. Our report was approved.	●	
1) A quality management education system was established in all workplaces (offices, works, and laboratories). The system went into operation in June 2002.	●	30
2) The percentage of employees participating in the educational programs was significantly increased by holding classes more often and preparing attendance schedules.	●	
1) Risk/hazard data were tabulated, agreements with customers were concluded, and manufacturing/logistics management inspections were conducted.	●	30
2) New rating criteria were established. Product safety meetings were held to discuss risk assessment results for new products.	●	20
3) Applications for approval of new products were filed. A seminar concerning overseas legal affairs was held for employees at the head office and laboratories.	●	—
1) Complaints decreased whereas claims increased. (Audit was completed on 88% of a total of 291 contractors (cumulative figure for fiscal 2001-2002)	●	30
2) Recurrent claims and complaints decreased.	●	17
1) A new recycling technology (bottle-to-bottle recycling) for PET bottles was developed by MCEC.	●	35
1) Case-by-case reviews were conducted in 38 cases.	●	—
1) Two meetings were held to exchange RC-related information. Subsidiaries and affiliates were directed to obtain international management system certification.	●	39,40
2) Subsidiaries and affiliated, both in Japan and abroad, were audited and inspected as planned (16 domestic companies, including 12 undergoing document survey only; 9 overseas companies). Disaster case reports were sent and information on various management systems was provided.	●	
1) Drills were conducted at individual sites in compliance with the hazard management rules.	●	26
2) The "Head Office Procedures for Anti-quake Measures" was formulated.	●	—
3) The "Risk Management Rules" went into force in April 2002.	●	15,16
1) A quick-responding system was maintained and operated on the basis of the Emergency Contact Network and Assistance System for External Logistics Accidents.	●	31
1) New measures were checked by the prior and post hoc safety evaluation system.	●	29
1) Reviews were conducted in 16 overseas projects.	●	16
2) Reviews were conducted in 38 projects.	●	—
1) The Responsible Care Report 2002 (Japanese version and English version) was prepared and distributed.	●	41
2) Regional public-relations magazines were issued at the five major works.	●	

Risk Management Systems

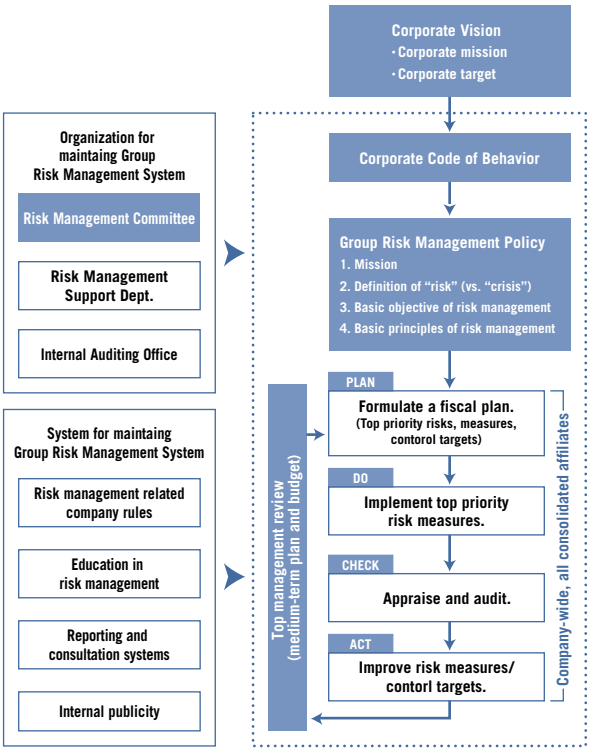
Mitsui Chemicals is implementing company-wide RC initiatives for harmonization with the global environment, as advocated in its Corporate Mission. We are working to secure facility safety, product safety, and employees' safety and health, and to reduce our environmental load. We can meet these goals by managing risks based on accurate and complete information.

Group Risk Management System

We established the Group Risk Management Committee in 2001 to take measures against corporate risks. A group risk management system was thus built up to deal with issues in financial, legal, and overseas business affairs. We are working to manage corporate risks on a company-wide basis under the basic principles shown in the frame below.

Some RC items, including environmental preservation and quality management, are dealt with as key issues because they involve a broad range of potential risks.

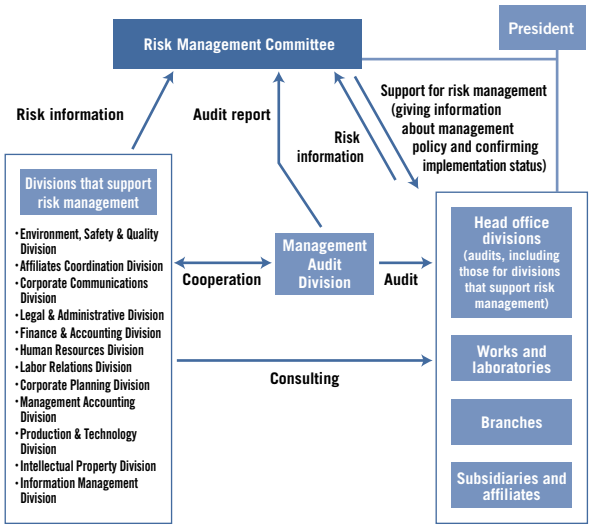
Schematic chart of the Group Risk Management System



Basic Principles for Group Risk Management

1. The line managers should be sure to carry out plan, do, check, and act (PDCA) procedures in conducting day-to-day risk management.
2. Any employee who has obtained information regarding risks should promptly report all such information to the line superior.
3. Any employee who has obtained any information regarding risk should not keep it within the employee's own department but should share it positively with other departments and seek cooperation.
4. Each individual employee should be keenly aware that each employee is responsible for risk management and should maintain an awareness of risk at all times.

Organization chart of the Group Risk Management System

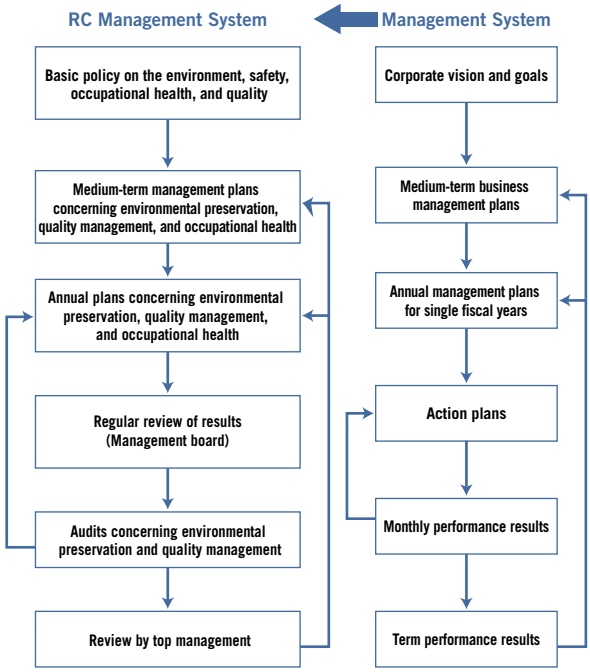


RC Management System

Basic Way of Thinking

Firm principals guide our activities and management system. RC is an integral part of our business philosophy and corporate mission. Accordingly, we work to secure environmental preservation and safety, prime concerns of many of our stakeholders.

Flow chart of the RC Management System



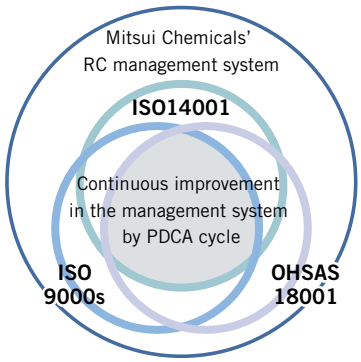
Operating an Integral Management System

We promote RC activities in many areas: Environmental preservation; process safety and disaster prevention; occupational safety and health; product safety; quality management; and social communication. It is essential to comply with legal regulations, aggressively reduce potential risks, and disclose related information. These requirements are specified as key items in the Corporate Action Guidelines, representing the basis for corporate governance. We are working to achieve sustainable development by operating the RC management system in combination with our corporate governance.

By combining the "plan, do, check, and act" (PDCA) cycle of the management system with our goals of maximized social contributions and minimized potential risks, we will be able to verify the function of corporate governance and to maintain sustainable development of the company.

We will make further efforts to establish a unified RC management system for the Mitsui Chemicals Group as a whole by applying the same policy to our subsidiaries and affiliates.

Unified Management System Integrating ISO14001, ISO9000s and OHSAS18001



RC Implementation Items

We are taking a committed approach to letting the PDCA cycle work well for items related to RC issues on each stage of the product life cycle.

Examples of RC implementation items

	Environmental preservation	Process safety and disaster prevention	Occupational health and safety	Product safety	Quality management
Research and development	・Developing environmental load reduction processes ・Developing products with less environmental load ・Technology evaluation meetings	・Improving process safety ・Technical safety checks ・Technology evaluation meetings	・Eliminating Occupational accidents ・Health management ・Technology evaluation committee	・Hazard assessment ・Risk assessment ・Product safety meetings ・Technology evaluation committee	・Improving product quality ・Product safety committee ・Technology evaluation meetings
Manufacturing	・Reducing environmental load ・Technology evaluation meetings ・Engaging indialogue with local communities	・Technical safety checks ・Preventing similar accidents ・Technology education ・Technology evaluation meetings	・Eliminating Occupational accidents ・Health management ・Technology evaluation committee	・Providing information for customers and engaging dialogues ・Entrusted parties management ・Technology evaluation committee	・Securing quality (prevention of recurring complaints) ・Entrusted parties management ・Technology evaluation committee
Sales and logistics	・Taking logistical Safety measures (Yellow Card)	・Taking logistical disaster measures (Yellow Card)	・Taking logistical disaster measures (Yellow Card)	・Taking logistical disaster measures (Yellow Card, MDSD, labels) ・Preparing instruction	・Taking logistical disaster measures ・Preparing instruction
Use and disposal	・Providing information for customers (MSDS and technical information) ・Recycling		・Providing information for customers (MSDS and technical information)	・Providing information for customers (MSDS and technical information)	・Reducing complaints
Communication with society					

RC Promotion System

We promote RC activities under the supervision of the RC Committee, which is chaired by the president and comprised of Management Committee members. The structure emphasizes EHS service and quality management, overseen, respectively, by the EHS Subcommittee and the Quality Management Subcommittee under competent directors. Administrators of RC promotion (general managers) lead the activities in each department.

RC Committee

1. Previous year's RC performance and RC audit results

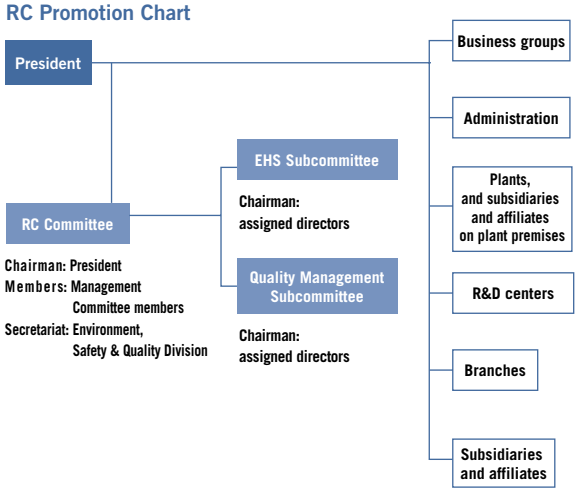
2. Coming year's annual RC plan

3. Other important matters, including reviews of the RC system

EHS Subcommittee/ Quality Management Subcommittee

These subcommittees draw up annual plans for the coming year based on the previous year's RC performance and RC audit results for relevant areas and submit them to the RC Committee.

RC Promotion Chart



Acquiring International Standard Certifications

Mitsui Chemicals is promoting certification under international standards for some RC implementation items, i.e., environmental preservation, occupational safety and health, and quality management. In fiscal 2001, the Osaka Works, the Omuta Works, and Shimonoseki Mitsui Chemicals, Inc., one of our affiliates, acquired ISO14001 certification. The Ichihara Works Mobara Center was certified as supplementary to the already obtained certification for the Ichihara Works. They were followed in fiscal 2002 by the Iwakuni-Ohtake Works and the Yamaguchi SM Plant.

The Nagoya Works and the Ichihara Works and Mobara Center were certified under OHSAS18001 in fiscal 2002, and the Omuta Works, in fiscal 2003.

Acquired and Scheduled International Certifications

Works	Certification	Date of acquisition
Ichihara Works and Mobara Center	ISO14001	03/22/2002
	OHSAS18001	03/19/2003
Nagoya Works	ISO14001	12/2003 (scheduled)
	OHSAS18001	06/24/2002
Osaka Works	ISO14001	03/25/2002
	OHSAS18001	12/2003 (scheduled)
Yamaguchi SM Plant	ISO14001	03/24/2003
	OHSAS18001	2004 or after
Iwakuni-Ohtake Works	ISO14001	04/26/2002
	OHSAS18001	12/2003 (scheduled)
Omuta Works	ISO14001	03/20/2002
	OHSAS18001	10/14/2003
Shimonoseki Mitsui Chemicals, Inc.	ISO14001	03/20/2002
	OHSAS18001	2004 or after

Implementing Internal Audit

The internal RC audit consists of EHS and quality audits. Individual plants (including subsidiaries and affiliates on their premises) and laboratories are audited for the accomplishment of respective annual goals as directed in the audit rules.

The director, the managers of relevant departments, and other internal experts of RC conduct the internal RC audit at least once every year. Individual business groups are also audited, independently or in cooperation with RC competent departments, as necessary.

In fiscal 2002, we started a program for safety dialogues with executives to encourage job site managers to express their opinions on the assurance of safety and to discuss specific efforts, in order to maintain sound workplace culture at individual works and laboratories.

RC Audit Results by Site

	Works	Date	Recommendations and suggestions
First term	Ichihara Works	10/24/2002	• Activities were conducted steadily with good results, as scheduled in the annual RC plan. • Continue investigations to resolve the problem of "gray zone" among Mitsui Chemicals, its subsidiaries and affiliates, and contractors. • Use the public relations magazine "Chigusa" to promote PRTR-related risk communication.
	Nagoya Works	09/12/2002	• Respond appropriately to potential accident case reports to eliminate hazardous inventory. • Take immediate action to correct machine conditions likely to cause pinching accidents.
	Osaka Works	09/11/2002	• Establish and obey an overall time schedule for OHSAS18001 certification. • Regarding the two claims concerning product quality, take appropriate actions within the second semester. • Establish an action plan for risk communication.
	Iwakuni-Ohtake Works	09/05/2002	• Formulate tripartite action guidelines aiming at absolute safety and zero emissions. • Establish an OHSAS18001-certified risk management system that is practically effective as reflecting the opinions of all employees of the plants. • This site has an unusually high percentage of out-of-specification units. Identify underlying causes and take appropriate remedial actions.
	Omuta Works	10/09/2002	• Encourage subsidiaries and affiliates not scheduled for OHSAS18001 certification to promote education and risk assessments. • Make use of the currently available public-relations magazine to facilitate communication with local communities. • Our systematic efforts to protect the environment have brought significant results. Continue to work to improve the activities.
	Yamaguchi SM Plant	09/05/2002	• You have implemented some out-of-the-ordinary RC programs. We want to see what other unusual ideas you can develop, and hope you will not fall into a 'rut' of the same approaches.
Second term	Ichihara Works	05/22/2003	• You must do better at organizing safety promotions and formulating more effective programs. We look forward to watching you set an example to the entire company. • Your plant-wide efforts to improve quality management (prevention of PL-related accidents) are very commendable. Keep up the good work. • Promote health management and efforts through industrial physicians conferences and other means. Share your information and concepts for activities throughout the entire company.
	Nagoya Works	04/21/2003	• You have taken effective measures against crushing and amputation accidents and other actions as suggested in the first-term internal RC audit. We look forward to seeing other good results. • OHSAS18001 certification has already been acquired. Be sure to carry out the PDCA procedures to put activities into routine practice. • Increase the percentage of employees involved in educational programs concerning quality management and prevention of PL-related accidents.
	Osaka Works	04/09/2003	• Identify from various viewpoints problems causing the labor accidents that occurred in fiscal 2002, and make efforts to resolve the new issues. • You have taken essential remedial measures against the quality management problems of "erroneous shipments and erroneous acceptances." Shift to taking measures to prevent product contamination by foreign substances.
	Iwakuni-Ohtake Works	04/22/2003	• Incorporate information on "know-how and know-why" in your educational materials in the context of "heritage of safety technology etc." for the benefit of the next generation of employees. • Make efforts to improve educational programs concerning quality management and the prevention of PL-related accidents, and to prevent product contamination by foreign substances. • Your actions to prevent release of bad odors represent an effective initiative and great consideration for the surrounding local community. Continue to act on this philosophy.
	Omuta Works	04/10/2003	• The incidence of labor accidents has decreased dramatically. Identify underlying causes of potential accident cases and minor accidents in which employees were only slightly injured, so as to ensure safer workplaces in your plant. • We regard highly the fact that contractors have become self-reliant while putting their voluntary safety activities into routine practice. • Your program to reduce atmospheric emissions of benzene has been quite successful. Continue to work to reduce environmental loads.
	Yamaguchi SM Plant	04/08/2003	• Encourage front-line workers to communicate with outside parties to maintain the current level of safety. • Establish a system for human resources development for the benefit of the next generations of employees at Mitsui Chemicals and contractors.
	Laboratories	06/06/2003	• Conduct safety activities as appropriate for preventing accidents to which each laboratory is prone. • Complete safety measures are taken at workplaces. The management's attitude for safety is good.

*Audit for the second term of fiscal 2002 was conducted in fiscal 2003.

New Efforts to Control Substances Discharged into Air

New Efforts to Control Substances Discharged into Air

In 1999, Mitsui Chemicals set forth "the Voluntary for Reducing Air Pollution Loads" with the aim for reducing the risks imposed by chemical substances. These risks were divided into four categories based on the hazards and discharge volume of each substance. Since then, we have worked to make all chemical substances we handle fall in the lowest-risk category over seven years. The goal specified in the Voluntary Guidelines was accomplished in advance of the deadline year 2005.

We are planning to control the discharge of chemical substances from our works at levels that do not affect the health of local residents. This is part of the risk communication requirements of the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (PRTR Law).

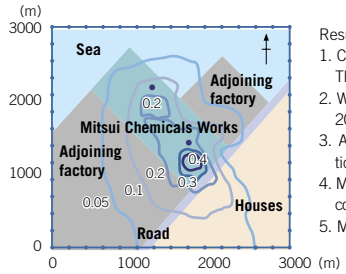
Specifically, the atmospheric dispersion of a discharged substance is calculated and the annual mean concentration of the substance at the works boundary is estimated, taking account of the wind direction and other factors. Necessary actions are taken to maintain the concentration below the maximum allowance for human health.

We will place first priority on the health of local residents. We will manage chemical substances discharged into air by assessing risk based on whether or not the estimated concentration affects human health, rather than on the calculating the amount of each substance discharged.

Example Calculation of Atmospheric Dispersion of Substances Discharged into Air

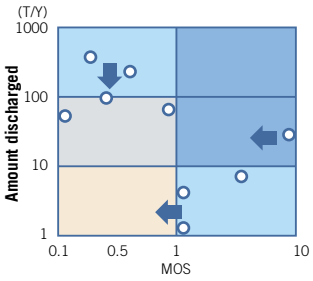
–Risks estimated for individual substances from weather conditions and other factors–

Annual mean concentration contours



Results for Substance A
1. Calculation formula
   The METI-LIS formula used
2. Weather conditions
   2002 AMEDAS data
3. Annual mean maximum concentration at works boundary = 0.3 ppb
4. Maximum allowable environmental concentration of substance A = 0.25 ppb
5. MDS = 1.2

Priority Ranking of Countermeasures by Risk Assessment



Countermeasure rank I
Countermeasure rank II
Countermeasure rank III
Countermeasure rank IV
Direction of improvement

MOS = (estimated concentration of test substance at works boundary)/(maximum allowable environmental concentration of test substance)

About Dioxin Issue in the Omuta River

A survey for dioxin in the Omuta River was jointly conducted in 2000 by Japan's Ministry of the Environment and the Fukuoka Prefectural Government. It revealed the exudation of oil droplets of high dioxin contents through river bed concrete joints and demonstrated the presence of dioxin-containing soil under the riverbed concrete. It was also announced that the dioxin concentrations in fishes of the Ariake Sea were similar to Japan's national average.

Hence, the Fukuoka Prefectural Government conducted a riverbed boring survey from 2002 to 2003 and published its results on August 26, 2003. The report stated that the soil under the riverbed concrete in the Omuta River was contaminated with dioxin. Since dioxin is similar in molecular structure to PCP and CNP* (chlorine-based agrochemicals) and chlorobenzenes, which had been manufactured at the Omuta Works, and also since the Omuta Works was the only site where PCP, CNP and chlorobenzenes were manufactured in those days, the Fukuoka Prefectural government deduced that the dioxin contamination was due mainly to the water discharged from the Omuta Works in the past.

At the Omuta Works, it has been practice since 1975 to release water to the sea, rather than to the Omuta River. Water is discharged after being treated using dedicated equipment to meet the relevant criteria. Since the Law concerning Special Measures against Dioxins went into effect in July 2000, we have been able to reduce the dioxin concentration of discharged water below the maximum permitted level by conducting activated charcoal treatment, in addition to the above measures. At present, PCP, CNP and chlorobenzenes are not manufactured at the Omuta Works.

We will continue our full cooperation in the surveys by the Fukuoka Prefectural government and take due actions in consultation with the administrative authorities.

*PCP: Pentachlorophenol, CNP: chloronitrophen

Measures to Prevent Resin Pellet Leak

In recent years, resin pellets, a starting material for plastic products, have posed environmental problems as they are released into rivers. Some drift ashore and are eaten by wild birds. They also detract from natural beauty. Business operators involved in the handling of resin pellets must take appropriate measures to prevent leaks into rivers and seas.

Against this background, Mitsui Chemicals has investigated a broad range of measures to prevent leakage of resin pellets in line with the relevant project of the Japan Plastics Industry Federation (JPIF).

The Mitsui Chemicals Group is working to prevent resin pellets from being released into the environment with several measures. JPIF posters have been placed in the plants and measures against resin pellet leakage during transport are undcer continual development. Cautions are also printed on paper containers of bulk pellets used by end manufacturers.

Resin Pellet Leak Prevention Campaign Poster
(From the "Japan Plastics Industry Federation" journal)

Analysis and Assessment of Environmental Impacts

Mitsui Chemicals has used eco-efficiency as the indicator of a good balance between economy and environmental load in constant efforts for sustainable development; this indicator has allowed us to maintain a steady record of results.

We will continue increasing the eco-efficiency of our business activities to make a comprehensive contribution to environmental preservation.

Assessing Environmental Impact Using Eco-efficiency

We use eco-efficiency to analyze and assess the environmental impact of our business activities, from product research and development to manufacturing.

To determine eco-efficiency, it is necessary to unify all forms of environmental load. Unification coefficients must be determined for individual factors. We have been using our own unification coefficients determined with the panel method developed by Professor Nagata of Waseda University; the method is appropriate for the chemical industry and Japan's environment. We are working to reduce our environmental load by manufacturing more valuable products through processes with less environmental impact using the eco-efficiency indicator.

Impact categories and environmental impact indices

Impact category	Weighting coefficient
Energy source depletion	Low calorific value/years of availability (crude oil = 1)
Global warming	GWP 100 global warming coefficient (100) (CO_2 = 1)
ODP ozone layer destruction	ODP ozone layer destruction coefficient (CFC-11 = 1)
Acid rain	Acidification potential (SOx = 1)
Resources consumption	1/years of resources availability
Air pollution	1/environmental control value
Marine and water pollution	1/environmental control value
Waste treatment	1 (converted to weight)
Influence on ecosystem	Hydrosphere toxicity quantitation factor (Cr = 1)

Example calculation of unified values of environmental load and eco-efficiency

Individual item	Unification coefficient	1997		2002	
		Actual value (tons)	Unified value (x 10^3)	Actual value (tons)	Unified value (x 10^3)
CO_2	1	6,632,875	6,633	6,022,400	6,022
NOx	805	4,203	3,384	4,118	3,315
SOx	856	1,079	924	783	670
Priority substances	478	648	310	218	104
Non-methane VOCs	239	20,478	4,894	7,060	1,687
Dust	321	381	122	329	106
COD	600	2,537	1,522	1,895	1,137
Nitrogen	600	5,608	3,365	2,058	1,235
Phosphorus	600	73	44	42	25
Waste	3	75,341	234	66,967	208
Total unified value (A)			**21,432**		**14,509**
Sales of Mitsui Chemicals alone (¥billion) (B)			7,063		7,008
Environmental efficiency market (B)/(A) x 10^{-6}			330		483
Eco-efficiency indicator			**100**		**147**

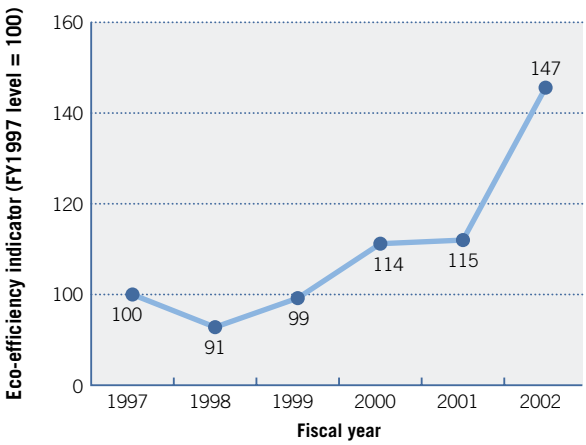
The unification coefficients used were obtained by averaging the coefficients for Japan proposed by LCA experts, environment experts, and corporate experts, on the basis of the panel method of Professor Nagata of Waseda University, with the coefficient for CO_2 as 1.

Eco-Efficiency Evaluation for the Entire Company

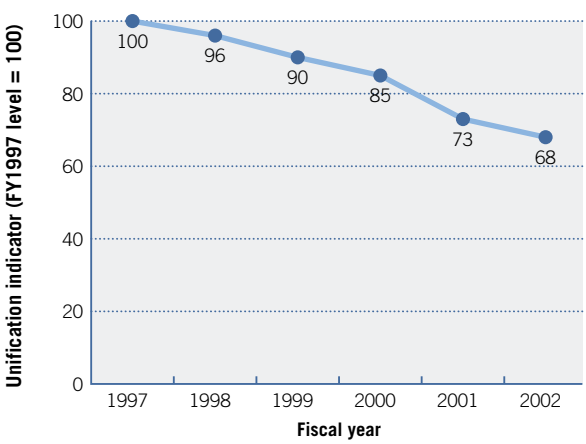
The eco-efficiency of the business activities of Mitsui Chemicals as a whole was calculated using the fraction obtained by dividing the non-consolidated net sales (numerator) by the unified environmental load (denominator). Although we publish our economic information both in net sales and ordinary profit, the former is adopted as a basis for this calculation. The latter was found to be inappropriate for time course evaluation because it tends to fluctuate widely with short-term economic indicators. Compared to the fiscal 1997 figure (100), the eco-efficiency indicator improved steadily to 147 in fiscal 2002. This indicates that the eco-efficiency of our business activities increased by about 50% over the past five years.

When examining the changes over time in unified environmental load compared to the fiscal 1997 figure (100), it is evident that the unified environmental load indicator decreased every year. Please note that the numerical figures given in the graph somewhat differ from the previous year's because the environmental load values were adjusted to reflect changes in the unification coefficients from values used in past times.

Changes in eco-efficiency indicator



Changes in environmental load unification indicator



Establishing an Evaluation System for Environmental-Friendliness

We are creating a new product evaluation system that is better than the previous eco-efficiency-based system. The new system aims at developing products with a commitment to consciousness of environment-friendliness at all stages, from planning and development and merchandising to recycling after use.

Establishing Standards for Hazardous Substances Contained in Products

We evaluate the substances used as raw materials for our products in order to prevent use of unnecessarily dangerous substances in our products. Hazardous substances are classified into two categories: "prohibited" and "restricted." The acceptability of their use is determined based on the standards for their handling and applications. Prohibited substances are subject to unconditional prohibition of use, whereas "restricted substances" undergo risk assessment; their use is prohibited or permitted in keeping with the purpose of use of the products in which they are incorporated.

Harmful Substances Handling Criteria

Category	Prohibited substances	Restricted substances
Handling criteria	1) Not allowed in products. 2) Not allowed for use as raw materials or ingredients.	1) Prohibit or restrict the use for applicable purposes. Conduct a prior risk evaluation if the substance is to be used. 2) Consider using an alternative substance or reducing the quantity contained.
Applicable uses	All applications	1) Products ranked as "high" or "moderate" in the PL risk criteria (substances with potential for human exposure) 2) Electric and electronic equipment components and automobile parts
Applicable substances	Substances that are legally prohibited from being manufactured or used include the following: • "Substances Prohibited from Being Manufactured" in the Law on Industrial Safety and Hygiene • "Class I Designated Chemical Substances" in the Law Concerning the Examination and Regulation of Manufacture etc. of Chemical Substances	1) Legally regulated substances 2) Carcinogens 3) Substances restricted on customers' request, including the following: • Heavy metals • Halogenated compounds • Substances suspected of being endocrine disruptors • Substances suspected of causing sick house syndrome

Example Determinations of Environment-friendliness

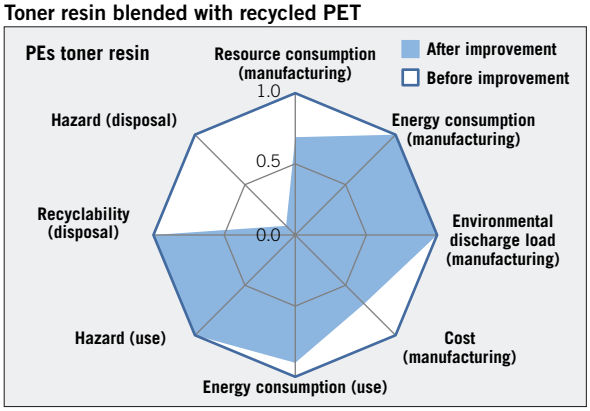
The environmental friendliness of each product is determined in terms of eight items in the product life cycle, from manufacturing to use and disposal by customers. For two or more products having the same function, a comparative evaluation is made for each item with a level of 1 assigned to the product that has the greatest environmental load. Hence, the environmental load decreases as the plotted point approaches to the center of the radar chart.

Below is an explanation of what is shown by the pie chart using "thinned nonwoven fabric for sanitation goods" as an example.

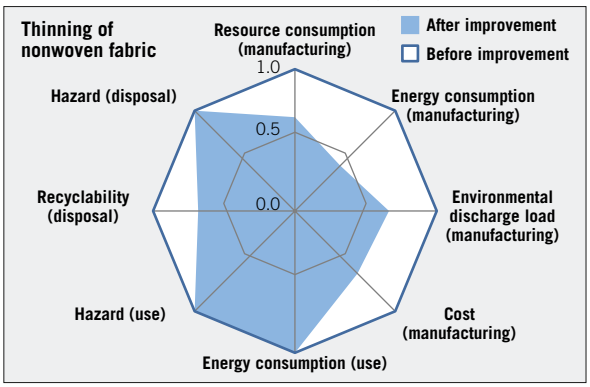
The items on the top and right sides of the chart (resource consumption, energy consumption, environmental discharge load, and cost) are relevant to the loads on the global environment during manufacturing. For all these items, the environmental load is lower than that of conventional products, as a result of product thinning (nonwoven fabric with increased toughness and decreased thickness). The items on the lower portion of the chart (energy consumption, hazard) are relevant to the impact of consuming activities; there is no significant difference from conventional products. The items on the left side of the chart (recyclability, hazard) are relevant to the load during disposal of the product after use; the environmental load has decreased with the thinning of the product.

We determine the environmental friendliness of each new product and technology by making the evaluation described above.

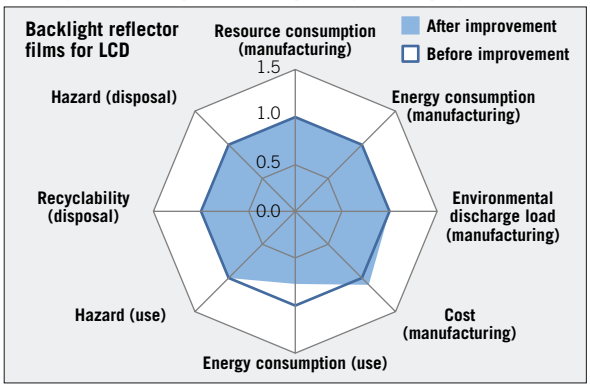
Toner resin blended with recycled PET



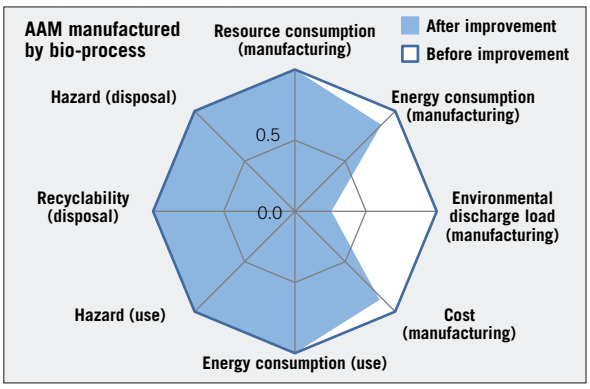
Thinned nonwoven fabric for sanitation goods



Backlight reflector plates for liquid crystal displays (LCD)



Acrylamide manufacturing process improvement (change to enzyme catalyst)



Environmental Accounting

Mitsui Chemicals has made significant investments in RC activities, including environmental preservation and occupational safety and health. Although our previous and preceding years' reports presented environmental accounting data on our investments and actual expenses for environmental preservation, this year's report adds our investments in occupational safety, disaster prevention, and health in keeping with our commitment to Responsible Care.

Basic Policy

Based on the quantitative determination of environmental costs and effects, our environmental accounting aims at three goals:

1. Allocate management resources as appropriate to deal with environmental issues.
2. Promote environmental preservation activities at works efficiently.
3. Improve social evaluation and confidence by positively disclosing environmental accounting data.

Scope

Mitsui Chemicals' works and subsidiaries and affiliates on the their premises

Period

Fiscal 2002 (from April 2002 to March 2003)

Accounting Methods

The environmental costs were calculated by reference to the "Environmental Accounting Guideline 2002" of Japan's Ministry of the Environment. The investments in measures concerning occupational safety, disaster prevention, and health were calculated using internal classification system.

Fiscal 2002 Results

The investments in environmental preservation amounted to approximately 3.3 billion yen and the expenses amounted to approximately 15.0 billion yen. This was about one billion yen higher investment than last year. The investments were spent to improve anti-pollution equipment for incinerators, to improve wastewater treatment, and to improve the separation of plant water and rainwater. The economic effect of our environmental preservation activities amounted to approximately 400 million yen.

The investments in measures concerning occupational safety, disaster prevention, and health amounted to approximately 1.2 billion yen, spent mainly to improve equipment to prevent fires, explosions, and accidents in which workers are caught in machines.

Environmental Accounting Facts

Environmental preservation costs

(100 million yen)

	Classification	Major efforts	Fiscal 2000		Fiscal 2001		Fiscal 2002	
			Investments	Expenses	Investments	Expenses	Investments	Expenses
1	Environmental preservation costs to reduce the environmental load of production and service activities within the business area (within-business-area costs)		**20**	**109**	**14**	**110**	**23**	**102**
	1-1 Cost of preventing pollution	Wastewater treatment equipment, measures against offensive odors, hydrocarbon elimination equipment, etc.	(13)	(99)	(13)	(97)	(22)	(87)
	1-2 Cost of preserving the global environment	Energy conservation equipment	(2)	(0)	(1)	(1)	(1)	(0)
	1-3 Cost of recycling resources	Industrial waste disposal and volume reduction	(5)	(10)	(0)	(12)	(0)	(15)
2	Costs to reduce the environmental loads occurring upstream or downstream of production and service activities (upstream/downstream costs)		—	—	—	—	—	—
3	Environmental preservation costs associated with management activities (management activity costs)	Introduction of environmental management systems, employee education, etc.	**0**	**4**	**0**	**5**	**0**	**6**
4	Environmental preservation costs associated with research and development activities (R&D costs)	Development of products and processes for environmental load reductions, etc.	**0**	**27**	**0**	**41**	**0**	**31**
5	Environmental preservation costs associated with social activities (social activity costs)	Money reserved for combating pollution, for greening, etc.	**0**	**3**	**0**	**4**	**0**	**4**
6	Costs related to environmental damage (environmental damage costs)	Environmental pollution surveys, remediation, etc.	**27**	**7**	**9**	**6**	**10**	**8**
Total			**47**	**150**	**23**	**166**	**33**	**151**

Economic Effects of Environmental Protection Measures

(100 million yen)

	Classification	Major efforts	Fiscal 2000 Monetary effect	Fiscal 2001 Monetary effect	Fiscal 2002 Monetary effect
1	Income from recycling	Resource recovery and waste recycling	**11**	**10**	**4**
2	Income from energy conservation	Energy conservation	**6**	**31**	**44**
3	Income from resource conservation	Improvement in specific energy consumption for raw materials	**16**		
Total			**33**	**41**	**48**

Investments concerning occupational safety, disaster prevention, and health

(100 million yen)

Breakdown of investments in measures concerning occupational safety, disaster prevention, and health		
	Classification	Fiscal 2002
1	Measures against explosions, fires, and spills	**4**
2	Measures against equipment deterioration over time*	**3**
3	Measures to improve occupational safety and workplace environment	**3**
4	Measures against natural disasters such as earthquakes	**1**
5	Others	**1**
Total		**12**

*Money spent for measures against deterioration of equipment that is related directly to securing safety, not including renewal costs for ordinary production equipment, etc.

Comment from the Senior Director

Akira Shimada, General Manager, Environment, Safety & Quality Division

We must conduct an expanding scope of RC activities to achieve sustainable development. In the meantime, the general public's awareness of the environment is changing dramatically, and we think it necessary to act to meet the current trends. We will proactively promote RC while improving communication, both internally and externally.

Independent Report Based on Responsible Care Verification

The Japan Responsible Care Council is offering a verification program in which the efforts and results of responsible care activities are evaluated objectively by experts in chemical industry, so as to improve information transparency and reliability, in terms of seven "Responsible Care Codes" (environmental preservation, safety and disaster prevention, occupational safety and health, product safety, quality management, communication with society, and the management system code for integral management of these six items).

In July 2003, we accepted the verification program for "management system", "product safety", and "occupational safety and health" at our head office and two of our plants. We will work to conduct higher levels of RC activities.

Management system

- Your introduction of a general management system for integrated management of environment, safety and quality is a commendable example for other companies.
- Your activities are commendable in that subsidiaries and affiliates, including those abroad, undergo responsible care audits on a regular basis.
- You are encouraged to mention progress in your overseas branches in your company-wide responsible care policy.
- You are encouraged to expand the contents of your responsible care rules.

Product safety

- Goals are well quantified. You are encouraged to establish new indices that reflect the target levels.
- Your approach to determining the environmental friendliness of each product and the educational textbooks for chemical product safety and quality management are commendable and provide a good example for other companies.
- You are recommended to verify the benefits of your important education and training programs by means of a method other than questionnaire surveys.

Occupational safety and health

- Your activities are commendable in that a high level of occupational safety and health is maintained at your works as you have already acquired OHSMS (occupational safety and health management system) certification.
- In particular, your activities are commendable as providing a good example for other companies in that a risk assessment system is shared by five domestic works and the assessment results are put into a database.
- Your activities are commendable in that key goals of educational management are quantified and the effectiveness of educational programs is checked appropriately.
- You are encouraged to include safety patrol results in your risk assessment program.

Commitment to Environmental Preservation

The Mitsui Chemicals Group is working to preserve the environment in two ways: reduction of the environmental load of our business activities, and appropriate management of chemical substances. We will continue proactive efforts for environmental preservation.

Efforts to Reduce Hazardous Air Pollutants and to Comply with the PRTR Law

In June 2002, it became mandatory to notify the national government of the handling of chemical substances that are designated under "the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (PRTR Law)". The status of notification at each of our plants is shown on page 49.

In 1999, we established voluntary guidelines aiming at reducing the risk of chemical substances (product of hazard and exposure level) over a 7-year period within the framework of the risk assessment program for environmental preservation. Since then, we have been working to reduce atmospheric release of hazardous air pollutants.

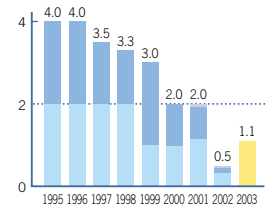
As a result of our efforts in line with the voluntary guidelines, the risk level has decreased sufficiently for almost all substances specified in "the Air Pollution Prevention Law". Although countermeasures have yet to be taken for some pollutants during tank exposure testing, an emission reduction project is already available; the objective of the voluntary guidelines has been nearly fulfilled.

Hence, our voluntary activities resulted in a 78% reduction in hazardous air pollutants as of fiscal 2002 compared to the 1995 figure. What we must do next is to control the concentration of each chemical substance below the level harmful to human health, based on its hazard and the expected atmospheric concentration at the factory boundaries.

In addition to accurately quantifying the emissions, we are striving to help local residents understand our environmental preservation activities by identifying and evaluating the environmental impact of our emissions on surrounding areas, conducting risk management, and disclosing the relevant information.

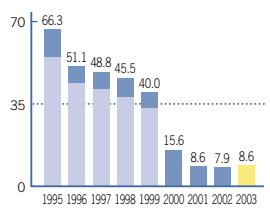
Atmospheric emissions of hazardous air pollutants (tons/year)

1,3-Butadiene



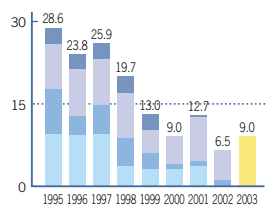
*At the Nagoya Works, the use of 1,3-butadiene was discontinued in June 2002. As a result, the atmospheric emissions of this substance decreased dramatically; the numerical target for fiscal 2003 was accomplished one year in advance.

1,2-Dichloroethane



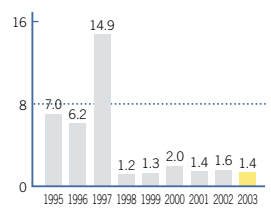
*At the Osaka Works, manufacturing of vinyl chloride resin was shifted from internal production to contract production in 2000. Since then, we have procured the starting material monomer separately and no longer handle 1,2-dichloroethane, the starting material for the monomer, at the Osaka Works.

Acrylonitrile



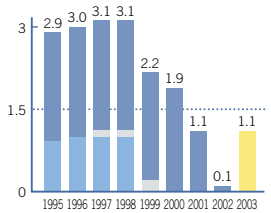
*We worked to prevent the atmospheric emissions of acrylonitrile by recovering it from tank vent gas and sealing the tank with nitrogen. As a result, the numerical target for fiscal 2003 was accomplished one year in advance.

Acetaldehyde



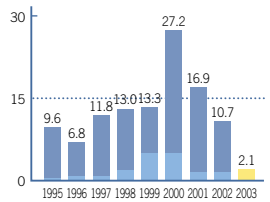
*In 1998, we discontinued the manufacturing of acetaldehyde at the Iwakuni-Ohtake Works.

Chloroform



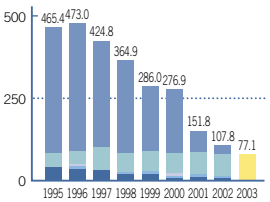
*In 1998, we discontinued the manufacturing of chloroform at the Nagoya Works. As a result, the numerical target for fiscal 2003 was accomplished one year in advance.

Dichloromethane



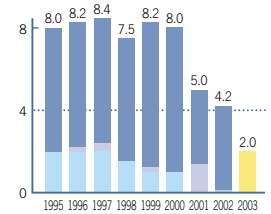
*At the Omuta Works, dichloromethane is used as a reaction solvent. To prevent leakage into the air, dedicated recovery equipment is installed, with additional equipment available to burn the unrecoverable portion.

Benzene



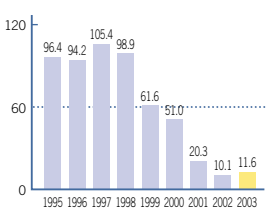
*We are manufacturing a wide variety of products from benzene. At the Omuta Works, where significant amounts of benzene had been leaked into the air, we have taken voluntary measures since 1997 and have succeeded in reducing the atmospheric leaks significantly. At the Yamaguchi SM Plant, we will take appropriate measures at the time of tank exposure testing.

Formaldehyde



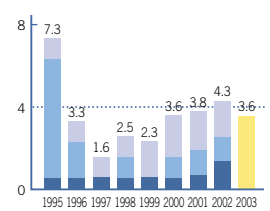
*We had been manufacturing formaldehyde at the Mobara Center, the Osaka Works, and the Omuta Works. In 2000, we discontinued the manufacture of formaldehyde at the Mobara Center.

Vinyl chloride monomer



*At the Osaka Works, vinyl chloride resin was produced in the past; in 2000, its production was shifted to contract manufacturing. Since the manufacturing facility is located in the Osaka Works, however, data on changes in atmospheric emissions of vinyl chloride monomer are presented here.

Ethylene oxide



*At the Ichihara Works and the Osaka Works, we are manufacturing ethylene oxide under strict control for a high-pressure gas.

Ichihara Works Mobara Center Nagoya Works
Osaka Works Yamaguchi SM Plant
Iwakuni-Ohtake Works Omuta Works
Target Value

Efforts to Prevent Global Warming

Since the 1990s, the Mitsui Chemicals Group has been working to reduce CO_2 emissions from the viewpoint of preserving the global environment. Energy consumption accounts for 92% of the CO_2 emissions resulting from our business activities. For this reason, we have been aggressive in conserving energy with the target of improving the specific energy consumption unit by 1% every year.

Specifically, our measures included process efficiency improvements, introduction of cogeneration systems, and careful control of energy consumption. As a result, we nearly accomplished the chemical industry's "2010 goal" of reducing energy unit consumption to 90% compared to the fiscal 1990 level, as of fiscal 1999.

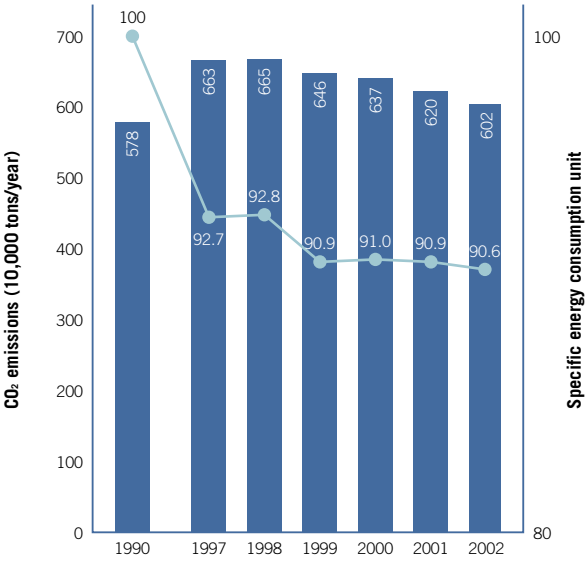
Although further reductions in CO_2 emissions may be difficult, partially because of the slightly increased rate of operation of our works, we will continue making secure efforts to conserve energy so as to reduce the emissions to the 1990 level by fiscal 2010.

Our Plants Undergo On-site Inspection for Legally Designated Factories

Our five major works, designated as first-kind energy management factories by the Energy Conservation Law, underwent an on-site inspection by the Bureau of Economy, Trade and Industry and the Energy Conservation Center, Japan (Foundation).

All these plants were confirmed as being managed appropriately. We will continue working to conserve energy.

Changes in CO_2 emissions and specific energy consumption unit



*The figures for CO_2 emissions were obtained by totaling energy-related emissions (fuels and purchase of electricity), process-related emissions, and waste-related emissions. The figures for specific energy consumption unit were obtained for energy-related emissions.

*This year's reduction in CO_2 emissions compared to the fiscal 2001 level was attributable to a slightly decreased rate of operation of Osaka Petrochemical Industries Limited and the cessation of operation of some plants at the Omuta Works.

Efforts for Waste Reduction

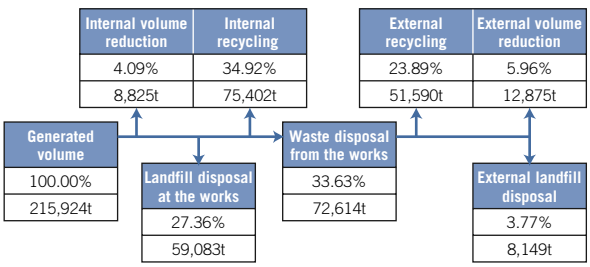
The Mitsui Chemicals Group has been working to reduce industrial waste as part of the group's efforts to create a recycling-oriented society. In particular, we have been striving to reduce the amount of industrial waste going into landfill disposal with the numerical target of achieving an 80% reduction in landfill disposal volume by 2004 compared to the 1990 level.

At the Omuta Works, fine chemicals comprise the main line of products. Their production employs large amounts of sulfuric acid, and its neutralization results in a great volume of sludge. The sludge has been treated at a conveniently located, dedicated facility for final disposal within the Works location. Therefore, the landfill disposal for the Omuta Works accounts for a great percentage of the total landfill disposal volume for Mitsui Chemicals as a whole. For this reason, we emphasize reducing landfill disposal at the Omuta Works.

It should be noted, however, that the data on changes in landfill disposal volume shown here exclude newly produced forms of waste, e.g., company house demolition work waste, other than process-related waste.

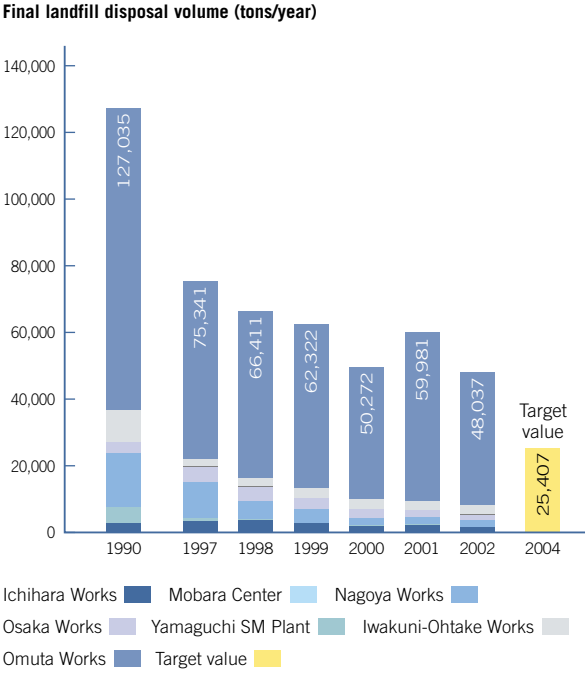
We will continue striving to reduce industrial waste.

Waste disposal status



Generated volume: Sum of sludge (dehydrated), waste plastics, dust, etc.
Internal volume reduction: Volume reduced as a result of waste plastic incineration and waste acid neutralization.
Internal and external recycling: Waste plastic recycling and the fuel use of waste oil are included.

Changes in final landfill disposal volume of industrial waste



Landfill disposal volume of non-process-related industrial waste at the Omuta Works (tons/year)

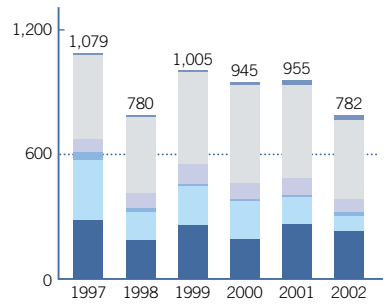
Works	2000	2001	2002
Omuta Works	2,852	3,288	18,903

Efforts to Reduce Atmospheric Emissions of Hazardous Air Pollutants and to Prevent Water Pollution

The Mitsui Chemicals Group has been striving to reduce the atmospheric emissions of hazardous air pollutants such as SOx, NOx and dust, and to reduce the discharge of water pollutants such as COD, nitrogen and phosphorus. As a result, we are well beneath the legal control levels. We will maintain these reduced levels.

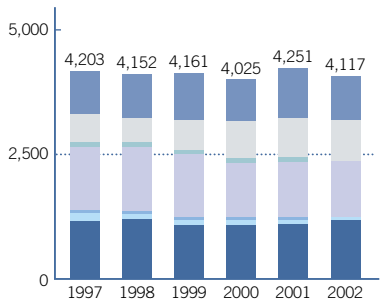
Changes in emissions and discharges with environmental load (tons/year)

SOx emissions



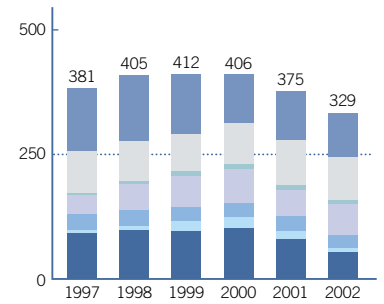
*SOx (sulfur oxides) emissions have decreased to one-twentieth of the level found more than twenty years previously. At the Omuta Works and the Nagoya Works, where coal and petroleum coke are used as boiler fuels, equipment for desulfurization of exhaust gas is installed. At the other works, the reduced level is maintained by using fuels of low sulfur content.

NOx emissions



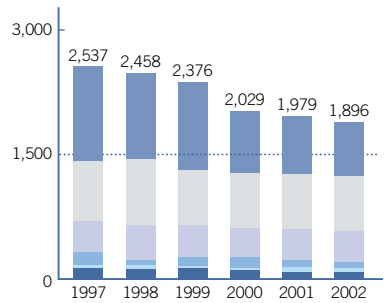
*NOx (nitrogen oxides) emissions have decreased to about one-third of the level found more than twenty years previously. At the Osaka Works, equipment for denitrification of exhausts is installed on large boilers. At the other works, the reduced level is maintained by using double-stage combustion and low-NOx burners. We will maintain this level.

Dust emissions



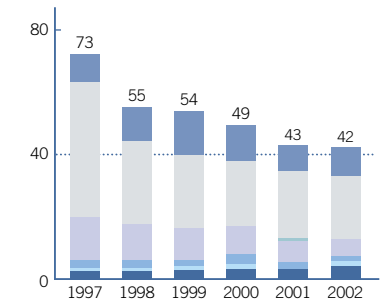
*Dust emissions have been reduced using dust collectors installed on large boilers.

COD discharges



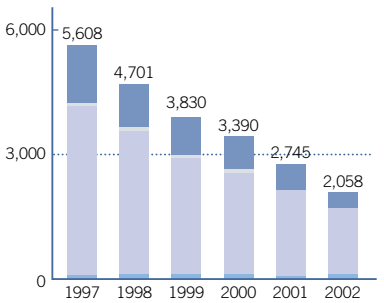
*COD (chemical oxygen demand) has decreased to about one-seventh of the level found in a survey about twenty years ago. At the Omuta Works, which serves as the base site for manufacturing fine chemicals, and the Iwakuni-Ohtake Works, where terephthalic acid is the major product, the regulatory control level of COD is cleared by a large margin, though the COD level is still somewhat high. We will continue working to reduce COD.

Total phosphorus discharges



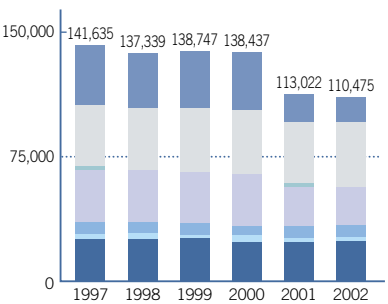
*Phosphorus is commonly used in coolant water as a safe antirusting agent in place of chromium. Additionally, we are using a phosphate as a nutrient-feeding salt for activated sludge resulting from wastewater treatment. However, since phosphorus is a cause of eutrophication, we are using it with great caution.

Total nitrogen discharges



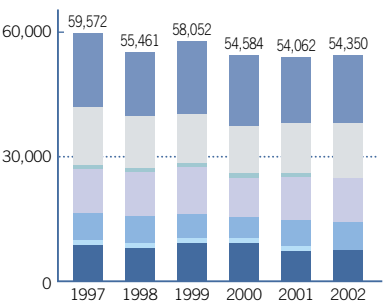
*The nitrogen content in wastewater had been high at the Osaka Works, where nitrogen-containing products such as ammonia and urea are manufactured; however, we have reduced the nitrogen content to well below the Fifth Total Volume Control level, in compliance with our agreement with the Osaka Prefectural government, by our continued efforts.

Water consumption



*The figures for water consumption are mainly accounted for by industrial water consumption and tap water consumption. Underground water is used at some works.

Water discharges



*The figures for water discharge include discharged water that required treatment out of total water discharge from our manufacturing processes. The difference between the amount of water consumed and that of water discharged consists mainly of the amounts of coolant water evaporated and water that need not be treated before discharge. Seawater is not included here.

Ichihara Works Mobara Center Nagoya Works Osaka Works
Yamaguchi SM Plant Iwakuni-Ohtake Works Omuta Works

Comments from Director
Hiroyuki Ito, Environment, Safety & Quality Division

This Responsible Care Report represents the first achievement of our activities to preserve the environment after I was assigned to my present position four months ago. I had been engaged in manufacturing and workplace management and activities to preserve the environment at plants. I am excited about taking this position in direct combat with the recent world's trends, including global environmental issues.

Commitment to Process Safety and Disaster Prevention

Mitsui Chemicals has earned respect and trust from society through our positive efforts to prevent process accidents and labor accidents. We are working to construct an accident-free system with an emphasis on complete preventive measures.

Securing Safety

We are working to enhance our concerted efforts to ensure safety.

In addition to improving the reliability of our facilities using a process safety and disaster prevention system, our activities focused on the following points in fiscal 2002.

(1) Inspections, both company-wide and at individual works, regarding technical factors in safety (dust explosion, static electricity, mixture-in-gas explosion, blending reaction hazards, etc.).
- 2001: Gas explosions (0.5 billion yen invested in countermeasures)
- 2002: Toxic substance leakage
- 2003: Reaction hazards

(2) Past accidents were compiled into a case report to prevent recurrent accidents.

(3) Educational programs for heritage of safety technology were updated.

Internal Safety Policy for High-Pressure Gas

We have already obtained certification for our safety practices at three works according to the High-Pressure Gas Safety Law. This certification is granted by the Minister of Economy, Trade and Industry for factories which have maintained excellent safety management systems and organizations and achieved outstanding results while operating high-pressure gas equipment. As described below, however, glitches in safety inspection at the Osaka Works were revealed and we voluntarily reported these to the regulatory authorities. We will endeavor to prevent the recurrence of similar problems.

Works	Date of certification	Number of certified facilities
Ichihara Works	06/23/2003	24 (renewal pending)
Iwakuni-Ohtake Works	08/29/2002	19
Yamaguchi SM Plant	06/07/2001	1

Note: The figures for the number of certified facilities at the Iwakuni-Ohtake Works and the Yamaguchi SM Plant given in the 2002 Report are incorrect.

Regarding Irregularities in Safety About Falsified Autonomous Inspections at the Osaka Works

Motivated by case reports from other companies concerning inspection for certification based on the High-Pressure Gas Safety Law, we conducted company-wide autonomous inspections at all of our business sites designated by the law. As a result, it was revealed that false notifications of safety inspection records from autonomous inspections for safety practices in 2000 to 2002 of the ethylene plant and related facilities, and equipment for manufacturing ammonia, urea, and semiconductor gases were submitted to the regulatory authorities despite the fact that the exposure and other testing had never been conducted on some of the equipment. We immediately reported this finding to the supervising authorities, the Osaka Prefectural government and the Ministry of Economy, Trade and Industry, and also announced it to the general public at our own discretion.

For the present failures in autonomous inspections for safety practices according to the High-Pressure Gas Safety Law, we apologize to all persons who had trusted in us, including our customers, the authorities, and local community residents.

We recognize the importance of autonomous inspections for safety practices and will make every effort to prevent the recurrence of such failures. We will strengthen our audit system, including enhancement of company-wide legal compliance education and a re-organization of testing management.

Plans and Drills for Local Safety and Disaster Prevention

In preparation for emergencies, we perform periodic anti-disaster drills, including fire, summons of personnel, and general alarms. Disaster prevention plans are prepared annually by individual workplaces and drills are conducted as suitable for each workplace. Additionally, periodic general disaster prevention drills are planned for the entire works and conducted in the presence of a public fire service and the self-defense fire-fighting unit.

In addition, joint disaster prevention drills with mutual assistance are conducted along with a public fire service and neighboring companies.

A fire-fighting drill
at Iwakuni-Ohtake Works

A disaster prevention drill
at Ichihara Works

Efforts to Prevent Accidents

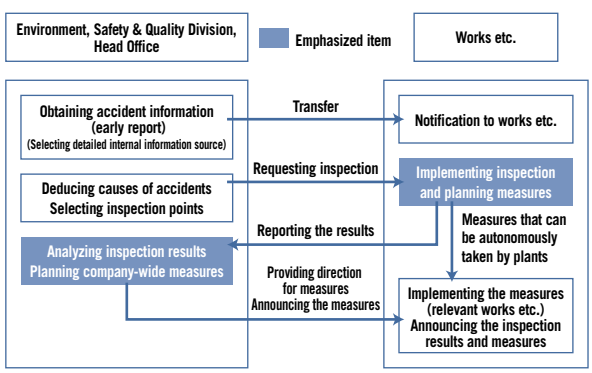
We are striving to forestall similar accidents by taking various preventive measures based on what we have learned from accidents occurring at our sites in the past.

Preventing Accidents: We are taking preventive measures against accidents, particularly by the training of staff to instill high safety skills in every workplace. Other preventive measures include security patrols and head office audits.

Containing Accidents: In the event of an accident, a task force will be formulated at the Head Office and at the affected site to take immediate action, as directed in the company-wide hazard management rules.

Additionally, each of the works has a disaster prevention organization, including an internal fire team, and anti-disaster drills are carried out.

System for learning from past accidents in and outside the company



Commitment to Occupational Safety and Health

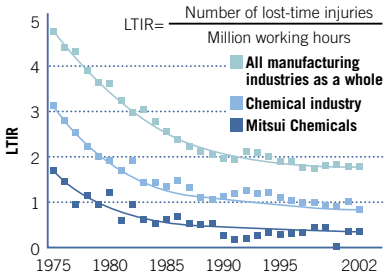
The Mitsui Chemicals Group gives top priority to occupational safety and health. We are in a continual process to develop an appropriate work environment and promote employees' voluntary practices for health.

Efforts to Establish Occupational Safety and Health Management System

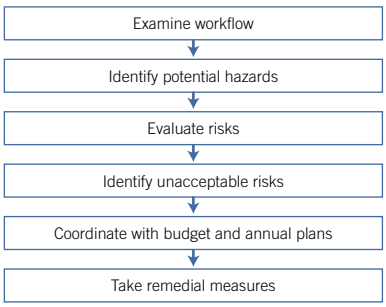
The number of labor accidents is approaching a minimum in the chemical industry and in all manufacturing industries as a whole. This is also true for Mitsui Chemicals. However, it is necessary to further reduce risks and accidents and to plan and implement measures to reduce the potential for damage from disasters. This will be done by identifying workplace hazards and evaluating risks to determine the likelihood of accidents from the hazards. Since fiscal 2001, The Mitsui Chemicals Group has been working to acquire OHSAS18001 certification, an international standard for occupational safety and health; our Nagoya Works was certified in June 2002, the Ichihara Works in March 2003, and the Omuta Works in October 2003. The other works anticipate certification by the end of fiscal 2003.

The procedures for acquiring OHSAS18001 certification are summarized in the figure on the right. The risk assessment process involving all employees is of paramount importance. They are required to examine the workflow for hazardous works, identify potential hazards, evaluate the degree and likelihood of risks, and plan and implement remedial measures. This raises employees' awareness of occupational safety and creates a safe workplace environment and culture.

Changes in lost-time injury rate (LTIR)



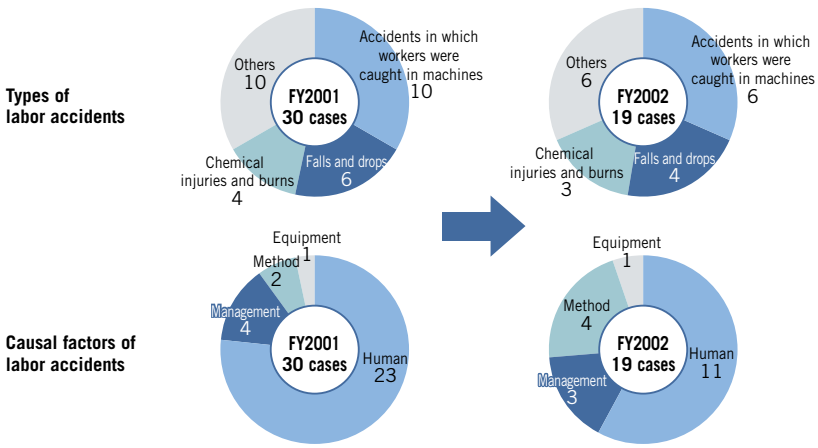
OHSAS18001 risk management procedure



Occupational Safety

As labor accidents are often caused by human error, it is essential to raise employees' awareness of safety and improve risk responsiveness at our works. We have instituted safety discussions at all levels of the company and found these to be fruitful.

Types and causal factors of labor accidents



Recommendations from occupational safety audit results for individual works

Works	First term	Second term
Ichihara Works	・Continue efforts to eliminate gray zones among Mitsui Chemicals, its subsidiaries and affiliates, and contractors.	・Streamline safety activities.
Nagoya Works	・Ensure that what is learnt from labor accidents is reflected in workplace safety activities. ・Respond to potential accident case reports to eliminate hazards.	・Promote routine OHSAS activities to reduce risks.
Osaka Works	・Conduct risk assessment in OHSAS activities with the "5W and 1H" scheme in mind. ・Immediately implement the current plan for elimination of gray zones.	・Involve all employees in the OHSASprocess for certification. Analyze labor accident issues from various viewpoints and learn from the results to accomplish the goal effectively.
Iwakuni-Ohtake Works	・Accept opinions from all employees and streamline OHSAS activities. ・Devise measures to eliminate gray zones that can serve as a good example for the entire company.	・Incorporate veteran employees' know-how and know-why in the safety education materials.
Yamaguchi SM Plant	・Encourage employees to look outside the works to be motivated for personnel vitalization.	・Encourage exchange between front-line workers here and outside parties to maintain a good safety culture.
Omuta Works	・Implement education and risk assessment programs for subsidiaries and affiliates to which OHSAS is not applicable. ・For the gray zone in MCEC, examine for problems in the safety assurance workflow.	・Identify underlying causes of important near-accidents and minor accidents in which employees were only slightly injured, and share information.

Occupational Health

The Mitsui Chemicals Group is making various approaches to occupational health management at the initiative of the health management offices of the head office, works, and laboratories. We are also promoting the company-wide development of a better occupational safety and health management system.

1. Promoting mental health care by providing mental health education, conducting job stress surveys, and offering counseling
2. Improving and maintaining the work environment at the works and laboratories, focusing on workplace patrols
3. Providing health care guidance for employees after medical check-ups and taking appropriate actions according to their health conditions

Improving the Workplace Environment

We are making efforts to create appropriate workplace environments for our employees. Changes will be based on medical check-up results, workplace environment measurements, health impact results, and the observations of workplace patrols by industrial doctors and health managers. The administration is also designating smoking and non-smoking areas and establishing rules for VDT work.

Comment from manager
Seitaro Dohi, Manager, Health Management Office, Labor Relations Division

Our philosophy in implementing our health measures is that employees' health is linked directly to corporate soundness. Regarding mental health issues, we think it best to establish a company-wide system to help our employees . As for health risk reductions, it is essential to the management system to upgrade communications throughout our workplaces; this will be done by various means including workplace patrols.

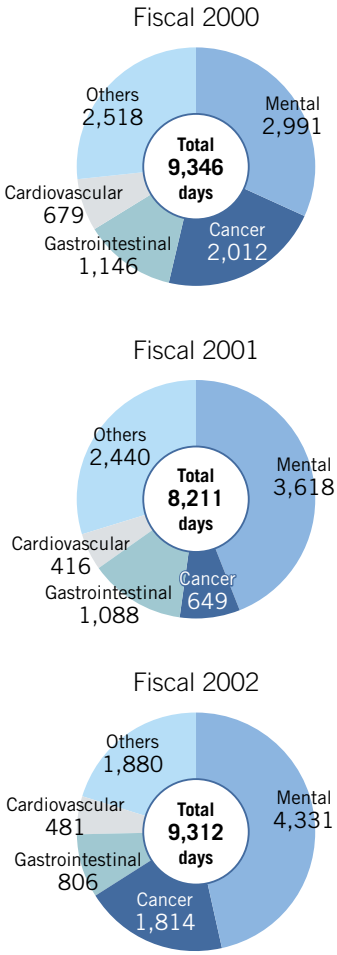
Work Environment Management

With the aim of assuring the appropriate work environment, we are endeavoring to eliminate various hazards and secure good workplace conditions by conducting accurate environmental measurements and evaluating the results.

Health Management

We are working to prevent health damage to its employees by monitoring their health conditions through medical check-ups and health counseling and providing health guidance and taking appropriate actions based on the findings. We are also making various measures to help employees enhance their health voluntarily.

Breakdown of lost-time diseases

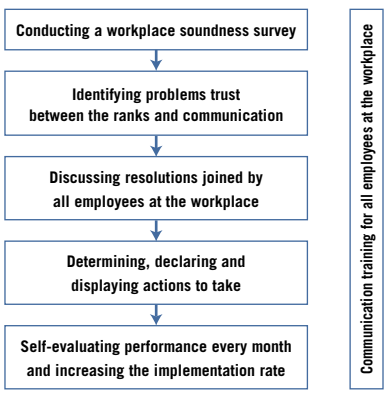


Soundness Improvement Project

At the Ichihara Works, a Workplace Soundness Survey* involving all workplaces was conducted to obtain information that will help improve the physical and mental environment at the Works. Selected workplaces and the Health Management Office implemented a one-year Soundness Improvement Project as a voluntary effort. As employees had expressed concern about communications and trust across different ranks in the hierarchy, approaches to the issues were investigated and the management announced its plan of action to address the problems. The results were evaluated by employees themselves every month. Additionally, industrial doctors and qualified health experts were employed as advisors in the project and communication training sessions were held for all employees. One year later, another Workplace Soundness Survey revealed noticeable improvements in trust and satisfaction with duties.

*A diagnostic survey to determine the soundness of an organization, based on the results from a list of 48 questions in eight categories: Human relations across hierarchical levels; human relations with colleagues; communication; way of working; decision making/goal setting; attitude/recognition of duties; satisfaction with duties; and contribution to company.

Efforts to reform organization culture



Commitment to Product Safety for Customers and Consumers

Product safety provides a platform to achieve goals in the major areas of responsible care, i.e., environmental preservation, process safety and disaster prevention, occupational safety and health, and quality.

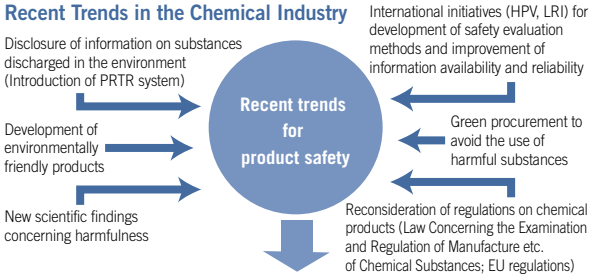
Mitsui Chemicals is fully aware of the importance of these areas and strives to ensure product safety by cooperating in industrial, institutional and governmental RC activities.

Recent Trends for Product Safety

In recent years, there have been global discussions of scientifically unresolved issues concerning the safety of chemical substances, like the endocrine disruptor issue. Worldwide trends are emerging, to a reconsideration of regulations on chemical products in light of their influences on ecosystems. In Japan, the industry anticipates revision of the Law Concerning the Examination and Regulation of Manufacture etc. of Chemical Substances and the New EU Chemicals Legislation REACH (Registration, Evaluation, and Authorization of Chemicals).

Meanwhile, substance management is being promoted with international cooperation among industrial, governmental and academic sectors. Authorities hope to develop safety evaluation technologies and increase the availability and reliability of safety information. We are active in theseefforts and are voluntarily evaluating the safety of our own products. We will disclose the relevant information we find.

Recent Trends in the Chemical Industry



Our efforts for product safety

- Risk assessment of the products and chemical substances we handle
- Increase in safety information availability and reliability (MSDS and labels)
- Proactive participation in international initiatives

Responding to the High Production Volume (HPV) Chemicals Program

The OECD high production volume (HPV) chemicals program is to obtain and evaluate safety data on existing chemical substances with an annual production volume of 1,000 tons or more per country. On the topic of methacrylamide, of which Mitsui Chemicals is one of Japan's manufacturers, we have completed gathering and evaluation of safety data; the results were submitted to and approved at the OECD review meeting in October 2002.

Risk Assessment of New Products

In our "ACCEL 21" new product development system, "RC actions" is specified as a development stage management item. A risk assessment is conducted before launching a new product and safety measures according to the extent of the risk are established and implemented.

We conduct two types of risk assessment: A risk assessment concerning workers and the environment, associated with manufacturing and handling; and a risk assessment concerning applications (foods, pharmaceuticals, cosmetics, etc.) of finished products. If published information is not available on hazards (fires/explosiveness, acute toxicity, irritancy, sensitization potential, mutagenicity, etc.) for these assessments, we conduct the necessary testing by ourselves.

Based on the risk assessment results, the most important issues are discussed at product safety meetings.

New product safety evaluation system in ACCEL 21

Stage	Development process	RC actions
I	Setting forth product concept	Collection and review of safety information
II	Brushing up the concept Market potential evaluation	Safety evaluation based on published information
III	Product development and pilot market development	Risk assessment conducted (Hazard assessment and exposure assessment)
IV	Full-scale market development	Feasibility determination* → Cancellation of development Implementation of safety measures
V	Commercialization	Launch

*If there is a considerable concern about risks, feasibility is discussed at product safety meetings.

Safety Information

We disclose safety information on our products to the general public.

In 2000, it became mandatory to provide material safety data sheets (MSDS's) pursuant to the Law on Industrial Safety and Hygiene. In 2001, the same obligation was required by the Law Concerning Reporting etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (PRTR Law) and the Poisonous and Deleterious Substances Control Law.

We prepare MSDS's for all of our products, including those not covered in the above laws, and provide them for those concerned. The ISO-based format developed by the Japan Chemical Industry Association is used.

Warning Labels

Our product containers bear unique warning labels for handlers' attention during handling of the contents.

The label gives information on the product's hazards and handling, prepared by our own standards based on internationally recognized standards.

Material safety data sheet

Warning label

Commitment to Quality Management

The Mitsui Chemicals Group accepts various requests from their customers who emphasize preservation of the global environment in response to the increasingly strict environmental regulations in Europe. For example, we are requested to demonstrate the absence of regulated substances in our products supplied to them, to undergo audits for our manufacturing sites, and to be qualified as suppliers for green procurement.

ISO9000 Certification Acquisition Status

All but one of our works acquired the ISO9000 certification as revised in 2000. The new standards require continual improvements and customer satisfaction. Accordingly, our ISO9000 compliance system was modified to enable systematic improvements according to the PDCA cycle of business management systems and to make use of information from customers, including complaints.

We are working to provide products with reduced environmental load that satisfy customers by implementing quality management based on the modified system.

Works		Certification number and version
Ichihara Works (Including Mobara Center)		ISO9001:2000
Nagoya Works		ISO9001:2000
Osaka Works		ISO9001:2000
Yamaguchi SM Plant		ISO9002:1994
Iwakuni-Ohtake Works	Petrochemicals	ISO9001:2000
	Pellicles	ISO9001:2000
	Piping materials	ISO9001:2000
Omuta Works		ISO9001:2000

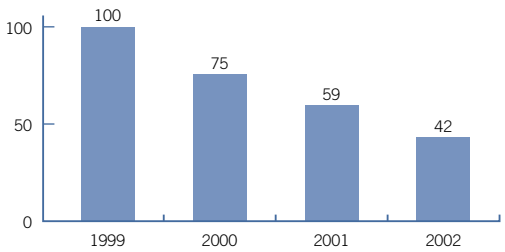
Responding to Complaints

There should never be quality-related complaints, from the viewpoint both of customer satisfaction and of product safety. For this reason, we are working to reduce complaints as a key issue of quality management.

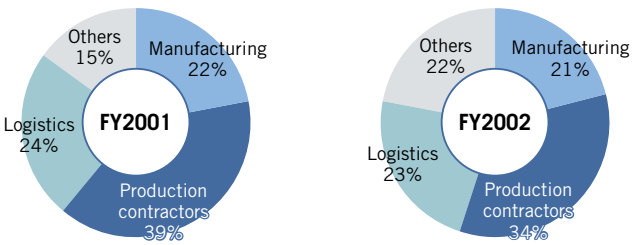
- ◆Implementation of executive audits
- ◆Logic tree analysis for causes of complaints
- ◆Sharing information on complaint case reports
- ◆Education on PL-related quality management

On-site audit for PL-related quality management

On-site audit for PL-related quality management



Changes in the number of complaints per year



Our Works Acquire Certification by Sony's Green Partner Environmental Quality Approval Program

Advocating "to meet our customers' expectation by acting as a good corporate citizen that complies with laws and social norms in each country," Sony Corporation, one of our group's most important customers, requested its suppliers of parts and materials to acquire certification by the "Sony Green Partner Environmental Quality Approval Program."

Sincerely responding to Sony's request, we accepted an environmental quality assurance system review for our works and were successfully certified with high scores.

Works	Date of review	Rating
Osaka Works	12/17/2002	100
Ichihara Works	02/20/2003	100
Iwakuni-Ohtake Works	03/07/2003	100

Comment from manager
Yukio Takahashi, Environment, Safety & Quality Division

Through unified efforts for quality management based on the 2000 version of the ISO9001 standards, we are working to provide products that satisfy our customers. Customers' needs are increasingly diversified and sophisticated, including green procurement for the sake of the global environment. We aim at "excellent quality management" that can meet such needs. All our employees will join forces in an all-out effort to improve the existing system.

Visit SONY's website:
www.sony.net/SonyInfo/procurementinfo/procurement/en-procurement_green.html

Commitment to Logistics Safety

The Mitsui Chemicals Group has formulated rules to ensure the safe transportation of products manufactured at their works, including the Yellow Card and MSDS systems. We are working to ensure that all those concerned are thoroughly informed of these systems. Since we handle many hazardous chemical substances, we have developed the Mitsui Chemicals Emergency Measure Covering Network (MENET), a system to minimize the damage of accidents during transportation.

Efforts to Secure Logistics Safety

We have established a logistic safety management system through our Rules for Environmental and Safety Control in Logistics, Logistics Division's Guide to MSDS distribution, Guide to Yellow Card Management, and Guide to Auditing Logistics Contractors. We provide MSDS's for logistics contractors and require their drivers to carry a Yellow Card during product transportation.

To fulfill its corporate responsibilities to society, Mitsui Chemicals provides guidance/education programs and business audits for contractors per annual logistics safety plans. The whole company and its contractors are making unified efforts to prevent accidents, including meetings of the Logistics Safety Promotion Association and the Disaster Prevention Council at the individual works, as well as meetings of the Logistics Council at the head office and branches.

Yellow Card

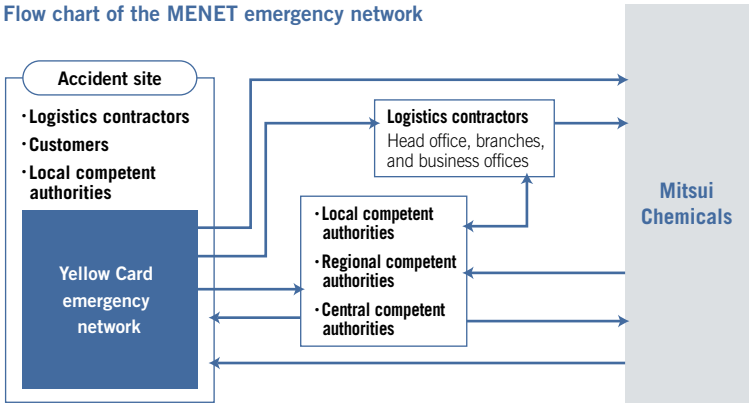
Logistics Safety System MENET

We have established the Mitsui Chemicals Emergency Measure Covering Network (MENET), a logistics safety system for emergency actions in the event of an accident during product transportation.

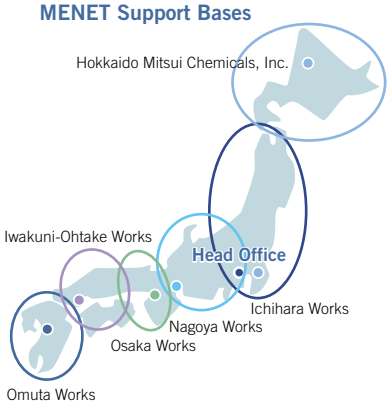
In this system, Japan is divided into six areas. Upon hearing of an accident, competent employees are immediately dispatched from the nearest works to take action.

Additionally, to enable more speedy action under the control of relevant works, anti-disaster equipment and materials are always available at regional contractors and logistics warehouses.

Flow chart of the MENET emergency network



MENET Support Bases



Ethylene Oxide Truck Involved in Accidental Collision from behind

On June 11, 2002, our ethylene oxide truck was involved in a traffic accident; it had been about to stop at a red light when it was struck from behind by a heavy-duty truck in the vicinity of a national road bypass in Higashi-Okayama City, Okayama Prefecture. The right rear tank was overturned and the heat insulation was severely damaged. Fortunately, the tank remained intact and ethylene oxide did not spill.

In preparation for such disasters, Mitsui Chemicals is working to learn from past logistics accidents at meetings of its logistics council, and to prevent similar accidents.

Lorry involved in the accident

Providing Education and Conducting Emergency Drills

In the Mitsui Chemicals Group, education and training programs are offered to all relevant employees in order to thoroughly inform them of safe logistics. Also, emergency drills are conducted with transportation companies.

An educational session

Businesses, Products and Technologies That Contribute to Environmental Preservation

As a comprehensive chemical company in pursuit of materials innovation, Mitsui Chemicals is working to develop products that contribute to environmental preservation and to expand their use in the theme of "Harmony with the Global Environment" as advocated in its corporate philosophy.

Developing Businesses, Products and Technologies in Individual Business Groups

We are working to develop businesses, products and technologies based on the "4R" (reduce, recycle, replace, and remediation) concept in individual business groups.

List of businesses, products and technologies that contribute to environmental preservation

: Product, : Business, : Technology, D: Reduce, C: Recycle, R: Replace, M: Remediation

Business/Product/Technology	Material	Features and applications	D	C	P	M
Petrochemicals Business Group						
Wet-type oxidation equipment		Technology to efficiently decompose wastewater that contains sulfur compounds from various organic manufacturing plants	—	—	—	○
Developing SPM (simple plastic manufacturing) technology		Production technology without granulation and pelleting processes	○	—	○	—
TOUGHTRACE™ (cleaning material for molding machines)		Cleaning material for processing and molding machines that generates minimal waste volume	○	—	—	—
HI-ZEX™ for thin-wall bottles	High-density polyethylene	Bottles 15% lighter than conventional products while retaining sufficient rigidity and strength	○	—	○	—
EVOLUE™ for packaging materials	Vapor-phase process super-low-density polyethylene	Packaging material 20 to 30% thinner than conventional products while retaining sufficient strength	○	—	○	—
ULTZEX™ for soft bottles	Solution process super-low-density polyethylene	Containers 15% lighter than conventional products while retaining sufficient rigidity and strength	○	—	—	—
Non-halogen flame-retardant polypropylene (PP) material	Polypropylene	Halogen-free PP material (automobile harnesses and corrugated tubing)	—	—	○	—
PP material for automobile bumpers	Polypropylene	PP material enabling shorter molding time than with conventional products	—	—	○	—
Promoting PP bumper recycling	Polypropylene	Formulas of recycled materials/virgin materials that clear the performance targets for recycling PP bumpers are disclosed to customers, or bumper materials of such formulas are sold under our own brand name.	—	○	—	—
PP mixed with wood powder, bamboo, cornstarch, etc.	Polypropylene	• PP mixed with wood powder: Contributes to reducing the use of wood as a building material. • PP mixed with bamboo: Used for egg containers etc. as a substitute for paper. • PP mixed with cornstarch: Biodegradable and used for convenience store lunch packaging.	○	○	—	—
PP material for concrete panels	Polypropylene	Using PP shuttering instead of wood shuttering for concrete panels reduces wood consumption.	○	○	—	—
Low-energy production of PP material for automobile bumpers	Polypropylene	We have developed a technology that enables direct production of a material for automobile bumpers in PP manufacturing plants. This technology reduces energy consumption in the manufacturing process by about 25%.	○	—	○	—
Automobile bumpers using no metallic coatings	Polypropylene	Automobile parts made of PP that obviates the coating process	○	—	○	—
Powder molding technology (project entrusted by NEDO)	Polypropylene	Energy consumption in the manufacturing process can be reduced by about one-third by molding PP resin directly from powder.	○	—	○	—
High-speed heat cycle injection molding technology		Offering better surface appearance of molded products than with the conventional molding method, this new technology obviates the coating process or reduces the frequency of coating during surface finishing.	○	—	○	—
Basic Chemicals Business Group						
PET recycling system	PET (polyethylene terephthalate)	Waste PET resin is recycled by material recycling into pallets, garbage bags, etc.	—	○	—	—
Functional Polymeric Materials Business Group						
ADMER™	Adhesive polyolefin	Complexing of polyolefin material	○	—	—	—
TAFMER™	αOlefin copolymer	Modifier to improve impact resistance at low temperatures	○	—	—	—
AURUM™	Thermoplastic polyimide	Recyclable super-engineering plastic	—	○	—	—
BAREX™	Polyacrylonitrile	Best suited for various packaging materials because of excellent characteristics, such as gas barrier property, very low adsorbability, and antistatic properties.	—	—	○	—
ARLEN™	Denatured polyamide 6T (aromatic nylon)	Heat-resistant and low-water-absorbing nylon that can be used with lead-free solder	—	—	○	—
MILEX™	Special phenol resin	IC sealant setting agent that can be used with lead-free solder	—	—	○	—
New Hofmann PAM	Polyacrylamide	Paper-reinforcing agent for cardboards with no higher COD or BOD than the conventional agent starch	—	—	○	—
Non-chromate (chromium-free) anticorrosive coating		Anticorrosive coating that does not incorporate hexavalent chromium, an agent harmful to the human body	—	—	○	—
Coating agent for impregnated base paper for decorative panels as substitute for vinyl chloride film		Substitute for vinyl chloride film	—	—	○	—
STRUCTBOND™ XTA	Epoxy resin	UV-setting transparent adhesive for electronics that shows excellent performance with high adhesive power and low shrinkage	○	—	—	—
EPOKEY™	Specially denatured epoxy resin solution	Epoxy-based coating materials and coating resins	○	—	○	—
UNISTOLE™ CHEMIPEARL™	Olefin resin	Coating and adhesive primers based on olefin, a material with excellent chemical resistance	—	—	○	—
VINYESTER		Non-styrene resin, avoiding the odors caused by styrene	—	—	○	—
Chemical recycling process using supercritical water		Process that enables the chemical recycling of TDI manufacturing process byproduct residue by supercritical water technology	○	○	—	—
TAKEMELT™	Polyurethane	Rapidly setting reaction type urethane hot-melt adhesive that contributes to workplace environment since no solvents are necessary	—	—	○	—
HIMILAN™ NUCREL*	Ethylene-based ionomer resin Ethylene methacrylic acid copolymer resin	Ethylene-based thermoplastic resin that has excellent transparency and toughness	○	—	—	—
Functional Chemicals & Engineered Materials Business Group						
SWP™	Polyolefin synthetic pulp	Substitute for carcinogenic asbestos	—	—	○	—
Nonwoven fabric	Polypropylene	Resource conservation and waste reduction by reducing the thickness of sanitary articles	○	—	—	—
Heat mirror		Heat-insulating film that contributes to energy conservation in houses	○	—	—	—
TECHNOROT™	Polyethylene	Polyethylene wires	○	—	○	—
BN300 package substrate	—	Semiconductor package substrate that can be used with lead-free solder	—	—	○	—
MEGAX™	Hydrogen iodide	No solution used in liquid-crystal etching process	○	—	○	—
Gaseous methyl silanes	Trimethylsilane and monomethylsilane	Semiconductor low-permittivity material gases	○	—	—	—
Non-halogen circuit material		Materials for electronic circuits, such as for wiring boards, incorporating a halogen-free flame retardant	—	—	○	—
Aluminum nitride		Heat-releasing material of high thermal conductivity	○	—	○	—
FILTOP™	—	Optical filter that blocks electromagnetic waves	—	—	○	—
WHITE REFSTAR	Polypropylene	Highly reflective, light-fast material for liquid crystal televisions and personal computer displays that contributes to increased illuminance and reduced power consumption	○	—	○	—
ENHANSTAR	PET (polyethylene terephthalate)	Highly functional reflective material for liquid crystal televisions and personal computer displays that contributes to increased illuminance and reduced power consumption with silver's regular reflection characteristic in combination with diffusion reflection function	○	—	○	—
CTP printing board		Printing material that obviates the developing process	○	—	○	○
ME catalyst	—	Catalyst for decomposition and detoxification of dioxins in exhaust gas	—	—	—	—
Starkle™	Furanicotinyl-series insecticide	Halogen-free agrochemical that exhibits a high insecticidal effect at low application rates with high penetration/translocation and residual activity	—	—	○	—
Hybrid rice variety Mitsuhikari		High disease resistance and good yield	○	—	○	—
Decomposing catalyst to detoxify exhaust gases		Exhaust gas treatment agent that detoxifies hazardous metal hydride gases, such as used silane gas, discharged in electronic device manufacturing processes	—	—	—	○
Polymer Business Development Division						
LACEA™	Polylactic acid	Plant-derived biodegradable plastic	○	—	○	—
Catalysis Science Laboratory						
FI catalyst		Pilot plant installed	○	—	○	—
Phosphazene catalyst		Percent recovery improved by 30 to 40% compared to conventional catalysts	○	—	○	—
Subsidiaries and affiliates						
EVAFLEX™ EVAFLEX™-EEA	Ethylene-vinyl acetate copolymer resin Ethylene-ethyl acrylate copolymer resin	Non-halogen flame-retardant thermoplastic ethylene resin	—	—	○	—
WARM business	—	Recycling business for waste acids and sludge from other companies	—	○	—	—
NOBOROCK	—	Fluorine-removing agent that clears the new water effluent control standards by a wide margin. Removed fluorine is recycled.	—	○	○	—
SOLAREVA™	Ethylene-vinyl acetate copolymer resin sheets	Highly durable sheets for solar battery sealing	○	—	—	—
High IC sheets	Electrically conductive polyethylene sheets	Lightweight foaming sheets (IC trays) for electroconductive vacuum molding that generate decreased amounts of frictional dust	○	—	—	—

™: Trademark of Mitsui Chemicals, *: Registered trademark of Du Pont

Development and Technologies of Environmentally Friendly Products

Mitsui Chemicals has been working to promote the development of products based on its environmental friendliness evaluation system, and has developed new technologies and products in a broad range of fields, including basic chemicals and functional materials.

Supplying isobutane for chlorofluorocarbon-free refrigerators

[Ozone layer protection and energy conservation] Isobutane is used as a refrigerant in place of chlorofluorocarbons, which deplete the ozone layer.

The National Consumer Affairs Center of Japan has published the results of a performance assessment of refrigerators incorporating isobutane, a product of our Osaka Works, as a refrigerant.

<Features>

1) Cooling performance: Equivalent
2) Environmental impact: Much better in refrigerant effect and better in electric power consumption.
3) Safety: Better
4) To consumers: Recommended for purchasing because of environmental friendliness
5) Manufacturers: Encouraged to proactively expand sales and find new applications to air conditioners.

The above results are available to the public in the "Environmental Friendliness and Safety of Chlorofluorocarbon-free Refrigerators" (July 5, 2002) by the National Consumer Affairs Center of Japan.

Concrete panels

[Environmental load reduction] Usable and recyclable as a substitute for South Sea wood for concrete panels

Currently, most concrete panels in use for construction and building works are made of wood. In Japan, about 100 million such panels (from 1.30 million tons of South Sea wood) are used annually. These panels are usable only two to five times and are burnt when they are no longer useful. On the other hand, polypropylene(PP) panels are durable, allowing 20 to 30 repeated uses, and recyclable.

At PP panel plants, PP in the form of bulk pellets is molded into concrete panels. Because of the intended use in construction work sites, the resin panels must be hard and tough and manufactured to accurate dimensions. This product is advantageous in that the same metal fittings as those for conventional wooden panels can be used, and that brighter work sites are ensured because the panels transmit light from outside.

Comment from director
Kouhei Ueno, New Products Development Group, Research & Development Division

The objective of developing PP material for concrete panels is to protect the global environment by reducing tropical deforestation. To this end, we must build three or four dedicated plants that are capable of producing one million tons of PP material annually. Wood remains the most commonly used material for concrete panels, with PP material accounting for less than 10% of the total. We expect the use of PP material to increase dramatically, provided that resins are well accepted by carpenters. Accordingly, we and processing manufacturers will work persistently to expand the sales of concrete panels of PP material.

Halogen*-free Insecticide

[Safety and environmental load reduction] Highly safe with minimal environmental load

In May 2002, we launched Starkle™, a epoch-making insecticide. Its active ingredient, dinotefuran, exhibits penetration and transduction, and is therefore effective against insects coming in contact with the plants to which Starkle has been applied, even without direct contact with the insects, as dinotefuran is absorbed from roots and leaves and go into the insects' bodies.

Additionally, Starkle™ contains no halogen-family elements such as chlorine, which are found in many insecticides, and is therefore highly safe with minimal impact on the ecosystems and the environment.

*Halogen-family elements: Generic designation for fluorine, chlorine, bromine and iodine.

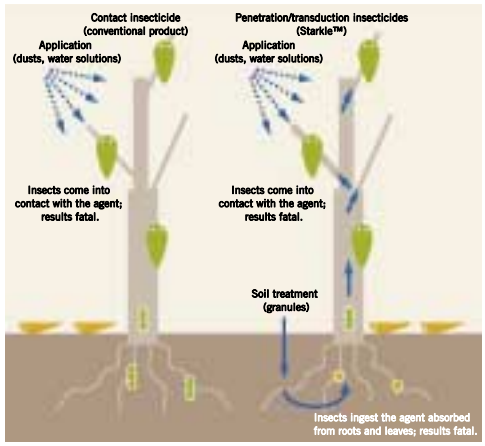
<Features of Starkle™>

• Broad insecticidal spectrum / • No phytotoxicity to crops / • Penetration and translocation / • Highly safe to mammals / • Highly safe to fish, shellfish and birds / • Minimally influences spiders and predatory mites, which are natural enemies to major insect pests / • Rapidly biodegradable in the environment

One year after its launch, domestic shipments surpassed our predictions ; we think this represents the market's expectations and appreciation for this highly safe insecticide.

Overseas, we have steadily been registering and launching this product in Asian countries. In the United States, the regulatory authorities decided to start its review for registration early in 2004 as "an organophosphate alternative" and "an agrochemical with reduced environmental load and reduced health risk"; we expect registration and sale in 2005.

Schematized mechanisms of actions of Starkle™ and conventional product



Holding Workshops on Environmental Businesses

To create a sustainable society, we think it necessary to continue providing unique products and technologies that can meet social needs. To this end, our products and technologies must be reconsidered from the viewpoint of the environment. Accordingly, we hold internal workshops on environmental business for the Business Groups and the Research and Development Division, with an emphasis on the product and process developmental phase.

Plant-derived Biodegradable Plastic LACEA™

[Environmental load reduction] Compostable due to its biodegradability
[Resource conservation] No consumption of fossil materials because of plant origin, thus having no impact on global warming.

Lactic acid, the raw material for the polylactic acid resin LACEA™, is produced by fermenting starch and glucose from corns and potatoes or sucrose from sugar beets and sugarcanes. Using plant-derived materials like polylactic acid, we could save the corresponding amounts of valuable fossil resources for our descendants.

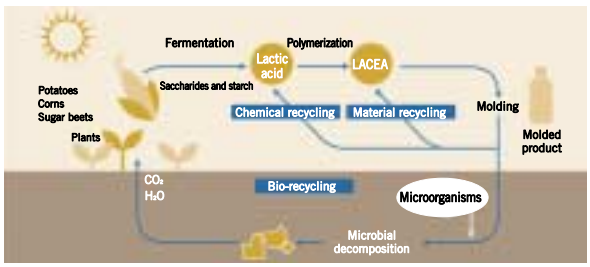
Additionally, incinerating polylactic acid does not increase the amount of atmospheric carbon dioxide, because the carbon combusted is derived from atmospheric carbon dioxide fixed by plants. A study was carried out to quantify the contribution of polylactic acid as such to environmental preservation; SRI, a US consulting company, presented a life cycle assessment report that 30% less fossil resources are consumed in polylactic acid production than in PP production.

LACEA™ is already certified for Japan's Green Plastics Certification and fulfills the requirements of Germany's Compostable Material Standards.

We are promoting the development of new applications of LACEA™ that make use of the unique features of polylactic acid, i.e., plant origin and biodegradability, in such fields as packaging containers, agricultural and civil engineering materials, compost bags, and cards.

Examples of LACEA™ products

Life cycle of LACEA™



A workshop session

Formalin-free Adhesive for Wooden Building Materials

[Environmental load reduction] Non-formaldehyde-series isocyanate binder

Mitsui Takeda Chemicals, Inc. has developed a new wooden board binder system based on a urethane resin adhesive, in place of conventional urea resin or melamine resin adhesives, as a binder (adhesive) for particle boards* and medium-density fibers, thus contributing to reductions in volatilized formalin from building materials.

Recently a building material grading system based on volatilized formalin from building materials was established to cope with the sick house syndrome issue. Also, Japan's Ministry of the Environment is promoting building material recycling; the use of building materials from building waste is increasing. Many such recycled wood chips contain formalin; there is an urgent demand for adhesion technology to reduce formalin contents in reused materials.

Urethane resins are formalin-free and reactive with the water in wood, offering equivalent or greater performance with less amounts of use compared to conventional adhesives. This adhesive is classified as highest grade 3 (volatilized formalin level not more than 0.3 mg/L) and is not subject to limitations in use in building materials.

* Particleboard: Boards prepared by compressive adhesion of wood chips

EPOKEY™ (Improved)

[Environmental load reduction] Toluene/xylene-free resin for coatings

EPOKEY™, a specially modified epoxy resin, has been developed as a coating material incorporating a highly safe organic solvent other than xylene, toluene or other substances controlled by the PRTR Law. This product has been developed to help our customers meet the PRTR requirements. The epoxy resin is used in what is called primer (undercoating material), an anticorrosive layer under a steel plate. It is common practice to use primers in inconspicuous locations. For example, coil springs on the hidden side of a vehicle are coated with a black coating, which incorporates a black waterproof pigment. EPOKEY™ is applied before the pigment. The EPOKEY™ resin is only slightly soluble in organic solvents, because it has been modified to confer this property. Another feature of EPOKEY™ is its protection from corrosion. When the organic solvent has volatilized, EPOKEY™ remains on the base in the form of a polymer and forms a coating film. This film offers protection of the substrate because it is insoluble in water and oil.

Comment from manager
Satoshi Yokogawa, Functional Polymeric Materials Business Group

I hope we will be able to supply solvent-free resins or aqueous resins, i.e, resins that contain no organic solvents, which have the capabilities demanded of coating films. At present, we are facing a major technical barrier in creating polymers of the current level of performance using those kinds of resin. However, it will be necessary to produce a resin retaining the current level of performance without using a solvent. I believe that this goal should be included in our environmental initiatives and would be one of our flagship products.

HI-ZEX™ for Thin-Wall Bottles

[Resource conservation] We have developed a new polyethylene material with a controlled molecular weight distribution for manufacturing small containers that have high strength and high rigidity. We have succeeded in producing bottles with significantly thinner walls.

Since the Law for Promotion of Sorted Collection and Recycling of Containers and Packaging went into force, we have been active in reducing the weights of plastic containers.

It is a precondition for wall thinning of shampoo bottles and other small plastic containers that the resulting products should be equivalent or superior to conventional products in terms of strength, rigidity and stress cracking resistance*. Because these three properties are mutually opposing, however, thinning has been considered difficult to achieve by traditional approaches.

HI-ZEX 6700B, a new material we have recently developed, enables wall thinning by about 5% using existing metal molds, and by even 10% using metal molds with modified shapes, by molecular weight distribution control.

*Stress cracking resistance: An index of strength reduction of plastics during immersion in chemicals.

TECHNOROT™: Shape-retaining Plastic Wire Material

[Safety and environmental load reduction] Applied to a broader range of purposes, including food packaging and medical masks

We have developed TECHNOROT™, a plastic wire material, as a substitute for metal wires in packaging for confections and other foods. When packaging contains metal wires, visual inspection is the only means for checking foods in packages for foreign matter; TECHNOROT™ allows use of metal detectors for the same purpose. This improves food safety. Other applications include medical masks. TECHNOROT™ is used in place of metal in the edge of the nose portion of the mask. After use, the mask may be burnt and disposed of, as is, as medical waste.

Medical mask

Wires for confectionery packaging

Comment from manager
Sato Issei, Functional Films Group, Functional Fabricated Products Division

TECHNOROT™ is a highly safe polyethylene material, producing no toxic gases when burnt. We think it is our mission to manufacture more sophisticated products by making use of its outstanding applicability, including medical devices, toys, food packages, and mizuhiki strings (red- (black)-and-white strings for ceremonial gifts).

Bottle-to-Bottle Recycling of PET Bottles

[Recycling] Recycling into food PET bottles

The volume of PET bottles collected has grown continuously with the increase in their use. This has led to high expectations for bottle-to-bottle recycling of this material. However, recycling into food containers faces critical questions, due to concern about safety against mixing with foreign matter and deterioration in mechanical strength of regenerated resin.

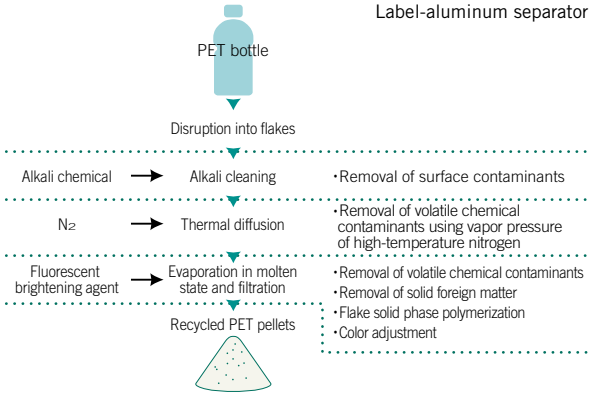
Mitsui Chemical Engineering Co., Ltd., developed a technology to completely remove contaminants by super-cleaning and another method to increase the molecular weight by flake solid phase polymerization. In this way, we succeeded in ensuring the required levels of safety and strength, thus opening the road to bottle-to-bottle recycling of PET bottles.

On March 11, 2003, Mitsui Chemical Engineering received the Chairman's Award from the Clean Japan Center (CJC) (Foundation) in the fiscal 2002 "Recycling Technology and System Commendation"* for "developing a technology and equipment for high-level recycling of PET bottles."

*"Recycling Technology and System Commendation": A program sponsored by CJC under entrustment from Japan's Ministry of Economy, Trade and Industry. Companies and corporations are honored for excellence in business activities or efforts that contribute to the reduction in waste generation (Reduce), reuse of used articles (Reuse), and efficient use of regenerated resources (Recycle). Instituted in 1975, this program has the longest history among the recycling-related commendation systems in Japan.

Label-aluminum separator

Outline flow of PET recycling



Developing Technology for Reuse of Recycled PET Resin 1

[Resource conservation] Pallets are molded from recycled PET resin.

PET bottles recovered in compliance with the Law for Promotion of Sorted Collection and Recycling of Containers and Packaging are recycled into PET resin flakes at recycling centers. At present, these flakes go into reuse for fibers, sheets and molded products. We have been working to develop new applications for recycled PET resin flakes and have succeeded in molding PET resin flakes into pallets.

It had been difficult to mold PET resin into large molded products like pellets because its resin properties interfere with workability during molding; the impact resistance of the molded products also was low. We have succeeded in overcoming these drawbacks by blending it with other resins into a polymer alloy*, thus enabling the use of recycled PET resin to account for as much as 70% of the 30 kilogram weight of each pallet.

These pallets are manufactured using an injection-compression molding machine of Tokai-juken Industrial Co., Ltd.

<Features>

- JIS-specified pallets.
- Can be molded directly from PET flakes using metal molds.
- Heaviest of molded products from recycled PET resin weighing up to 30 kilograms each; mass-consumption of PET resin is expected.

A test in actual use is ongoing in our own facilities. After completion of the test, these pallets will be used as a logistics material for transporting our products.

*Polymer alloy: Two or more kinds of polymers are blended to achieve better function or performance than with a single polymer alone.

Developing Technology for Reuse of Recycled PET Resin 2

[Resource conservation] We have developed and commercialized water conduits of recycled PET resin for drained paving.

We have been working to develop new applications for recycled PET resin flakes; these efforts have paid off in a new extruded polymer alloy resin. Our subsidiary, Mitsui Chemical Industrial Products, Ltd., has commercialized water conduits of recycled PET resin for drained paving (brand name: NETORON Pipe ED) based on its molding technology and began marketing it on a full scale in 2002.

<Features>

- Exhibits excellent heat resistance based on physical properties of PET resin.
- The specially designed reticular structure ensures flexibility and pressure resistance.
- Enables smooth heavy-duty civil engineering machine operation during pipe repair and easy recycling.

Developing Technology for Reuse of Recycled PET Resin 3

[Resource conservation] Recycled PET resin is processed into garbage bags.

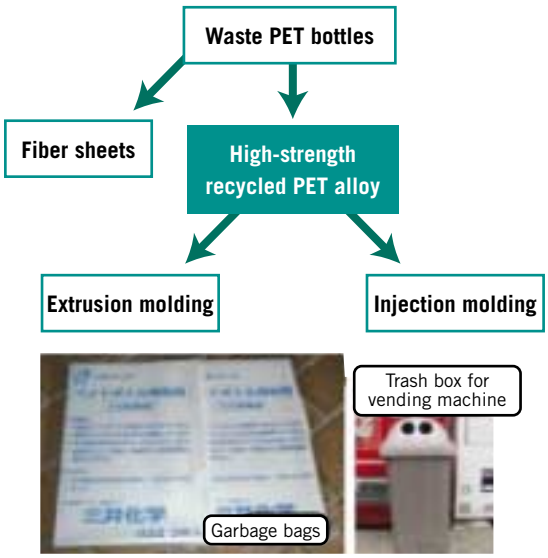
Because of its characteristic low melt tensile strength*1, PET resin is unsuitable for inflation molding*2 using conventional approaches. We have developed a new technology for inflation molding of recycled PET bottle flakes into films by applying our polymer alloy technology. This technology is applicable to various films, garbage bags, yarns, and flexible containers.

<Features>

- Generates lower calorific value upon combustion compared to conventional polyolefin.
- Leaves no residue such as calcium when burnt.
- PET flake content is 80%.
- Each bag of 45-liter capacity is equivalent to one PET bottle.
- Heat-sealable.
- Can be processed into translucent bags in the absence of inorganic additives because of the crystallization nature of PET resin.
- Generates no harmful substances such as gaseous hydrochloric acid.

*1 Inflation molding: A type of molding by which a molten resin is extruded into a tubular form and the tube is inflated by air blowing to obtain films. Also referred to as hollow molding or blow molding.

*2 Melt tensile strength: Tensile strength required to deform a molten resin under non-isothermal conditions.



High-strength recycled PET alloy

Comment from general manager
Masayoshi Yahagi, PET Resin Division

Although the percentage of PET bottles recovered after use exceeded 50% in fiscal 2002, this level remains lower than the recovery rates for bottles and cans. The number of PET bottles recovered is expected to continue increasing as consumers' environmental awareness rises. It is essential to continue developing PET bottle recycling and reuse technologies in order to create a recycling-oriented society.

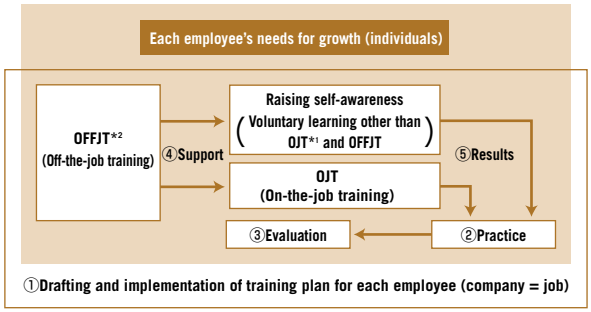
Communication with Employees

Mitsui Chemicals believes that its activities as a corporate citizen are facilitated by providing various programs for each employee.

Concept of Fostering Human Resources

For the sake of strengthening this company, we urge our employees to act independently to communicate their own ideas and thoughts to others and continue improving themselves through close dialogues. We believe in fostering human resources to provide the best environment for our employees.

Basic flow of our educational system



Implementing Company-wide Education and Training Programs

In addition to compulsory hierarchical educational courses designed to accommodate individual capabilities, we offer a variety of optional courses. A large number of subjects are offered to each individual through internal education, external education, and correspondence. They are allowed to freely choose among all the subjects and plan his or her own program to maximize their individual capabilities and realize their potential.

Fiscal 2002 Status of Implementation of Educational and Training Programs

	Hierarchical	Skill enhancement	Accommodation to globalization	Consolidated management enhancement
Medium-term plan		Risk management education Two sessions provided at head office (April 19 and 26) After a discussion was made with the Risk Management Committee Secretariat, the sessions took place to explain Mitsui Chemicals' organization etc. at the seminar for newly appointed managerial personnel*4.		
Human resources strategy	Course C training for newly recruited employees*3 (March 29 - April 18) Newly appointed managerial personnel training A program to fully inform the participants of the work base system introduced (sessions held on August 22 and 23; will be held in October for employees at the works)	Legal compliance education and basic education for employees at sales departments (August 1 and 2, February 21 and 22) Sessions held twice at head office (April 19 and 26) After a discussion with the Risk Management Committee Secretariat, the sessions were held to explain Mitsui Chemicals' organization etc. at the seminar for newly appointed managerial personnel. The introductory part of a seminar on accounting held on September 4.	Education to enhance English language skills • Overseas short-term language training 18 waiting employees appointed in the previous year were sent (program scheduled to completed by June of the coming year) Fiscal 2002 delegation will be postponed accordingly. • English conversation lectures • Language skill development education One-day presentation training session was held mainly for the business groups (4 times in total). Business writing training was also provided. • Employees were encouraged to take the TOEIC test.	Consolidated management seminars First term: Held 9 times in total (head office and works) Lecture on the consolidated accounting system was given by certified accountant, and an explanation was given on the organization, business result management, and system operation in the new company. Second term: Cafeteria-style education to allow participants to share information October : Legal affairs November : Mental health December : ESH activities January : The Commercial Law as Amended and drawing up agreements February : Legal compliance and sales basics March : Newly appointed full-time executives
ESH strategy		Quality management education Being provided by the Environment, Safety & Quality Division		
Others	Training for 2nd-year employees (January) Training for 5th-year employees (February) (Career competency seminars)			


A session for legal compliance education

<About the Training Programs>

*1 OJT : An abbreviation for on-the-job training, also known as in-the-workplace training, referring to a type of training in which employees are trained while on their competent duties to develop skills and capabilities necessary for performing the duties.

*2 OFFJT : An abbreviation for off-the-job training, also known as out-of-the-workplace training, referring to a type of training in which employees are trained outside the company to improve their skills and capabilities.

*3 Training for newly recruited employees : The objective of this program is to provide newly recruited employees with an opportunity for the "paradigm shift" from "student=individual person" to "employee=producer and individual person" and to allow them to independently develop knowledge and skills necessary in common to all job categories. Additionally, a factory training program is available to newly recruited university graduate employees to provide an opportunity for feeling the actual job site as the place of "creation" or the starting point for manufacturers.

*4 Seminar for newly appointed managerial personnel : The objective of this seminar is to motivate and help newly appointed managerial personnel to realize their positions and roles and understand the principles of management planning systems. Policy management approaches are also taught.

• Challenge education : In addition to compulsory courses, this optional program provides support for the independent development of individual capabilities. A variety of optional courses, including language, law, quality management and technical expertise, are available. The students develop their individual capabilities under their own responsibility and control.

Sharing In-house Information

Mitsui Chemicals issues a monthly in-house magazine called "MCI Net" to allow its employees to share in-house information. For responsible care, in particular, awards, certifications and training sessions are highlighted, and comments and case reports on the risk management system are presented to raise their awareness of RC activities. Also available are columns for roundtable discussions and paper debates to show employees' opinions and create an interactive in-house magazine.

Furthermore, Mitsui Chemicals is operating an intranet database, accessible to all employees, on our company regulations, personnel transfers and chemical products.

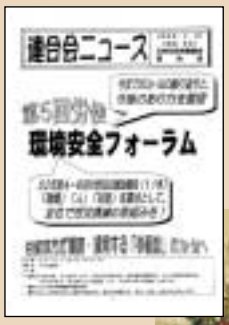
In-house magazine "MCI Net"

Cooperative Efforts with Labor Unions

Mitsui Chemicals and labor unions jointly hold a meeting of the EHS Forum for Labor and Management twice a year for active discussions on the environment and safety. For RC activities, in particular, labor and management exchange opinions about a wide variety of topics, from medium-term plans (including labor accident factor analysis* results and occupational health management results) to efforts for occupational health, health management, and mental health, and making unified efforts to achieve significant results based on shared recognition between the two parties.

An inauguration meeting for the Mitsui Chemicals Labor Union was held; the Mitsui Toatsu Chemicals Labor Union and the Mitsui Petrochemical Industries Labor Union had joined to form the new group.

* Labor accident factor analysis: Each labor accident is analyzed to determine whether its cause was human error, mis-management, the method, or the equipment.



A labor union newsletter

Labor union inauguration ceremony

Working with Contractors to Develop Safety

Our works hold meetings of the MCI Contractors Safety Collaboration Committee and the Disaster Prevention Council to enhance communication on safety with contractors.

A regular repair meeting in Osaka

Environmental Practice Education Started at the Omuta Works

At the Omuta Works, an environmental practice educational program focusing on wastewater treatment was started for eight manufacturing workplace chiefs selected every month. Program sessions include internal tours to environment-related facilities such as for wastewater treatment and incineration, and lectures on environmental initiatives and their importance. The objective of this program is to raise each participant's awareness of the environment and motivate them to reduce environmental load during operation of the plants at their own workplaces. The results of the questionnaire survey on the first eight participants suggested a good educational effect; this program is expected to have significant effects.

An environmental education session on wastewater treatment at the Omuta Works

Efforts for RC at Group Companies

Mitsui Chemicals is proactively supporting the responsible care activities at its group companies. In particular, a RC audit is conducted once or more every year not only for domestic group companies located in our works, but also for those located outside the works, and even for overseas group companies based in South-East Asia.

Domestic Group Companies Located outside Our Works

The Mitsui Chemicals Group has promoted certification by the international ISO9000 and ISO14001 standards. More than half the group companies have already drafted a plan for ISO14001 certification and are conducting RC activities in a cooperative manner.

Additionally, RC information exchange meetings are held twice every year to allow the group companies to share various pieces of RC information, including accidents and disasters, with Mitsui Chemicals.

Our group companies involved in resin processing and compounding suffer from a high incidence of accidents in which workers are caught in machines (likely to cause significant injuries), due to the nature of their business. These companies and similar workplaces of Mitsui Chemicals hold safety review meetings for processing workplaces to allow relevant employees to share information such as safety measure case reports.

Status of International Certification Processes at Domestic Group Companies

Name of company	ISO9000s	ISO14001
Santo Chemicals	●	
Tohoku Uloid Industry		
Hi-Sheet Industries, Ltd.	●	
Mitsui Chemical Industrial Products, Ltd.	●	Planned (FY 2004)
Printec Co., Ltd.	●	●
Mitsui Kagaku Platech Co., Ltd.	●	Planned (FY 2003)
Sunrex Industry Co., Ltd.	●	Planned (FY 2004)
Saxin Corporation	Planned (FY 2003)	Planned (FY 2005)
Sanchu Chemicals	●	
Yamamoto Chemicals, Inc.	●	●

● Certified No current plan

Results of fiscal 2002 RC audit for domestic group companies

Name of company	Major business	Date of audit	Key suggestions
Mitsui Kagaku Platech Co., Ltd.	Manufacturing, processing and marketing of synthetic resin products	04/04/2002 01/10/2003	Identify dangerous tasks, rank them by degree of risk, and implement specific measures systematically.
Printec Co., Ltd.	Manufacturing, processing and marketing of electronic information materials	04/10/2002 03/21/2003	Plan to prevent potential accidents in atypical works and foresee risks before starting work.
Sunrex Industry Co., Ltd.	Manufacturing and marketing of nonwoven fabrics and films made from synthetic resins	04/16/2002 02/25/2003	Take measures based on employees' frank opinions and warnings to prevent accidents in which workers are caught in machines.
Mitsui Chemical Industrial Products, Ltd.	Manufacturing and marketing of civil engineering materials, building materials and packaging materials made from synthetic resins	05/09/2002 03/04/2003	Take measures based on employees' frank opinions and warnings to prevent accidents in which workers are caught in machines.
Hi-Sheet Industries, Ltd.	Manufacturing and marketing of foamed sheets made from synthetic resins	08/06/2002 03/11/2003	Plan ahead to prevent safety activities, including potential accident case reporting, from becoming stereotyped.
Santo Chemicals	Manufacturing of agrochemicals	12/03/2002	Improve the directions for atypical works.

Results of fiscal 2002 safety review meetings for domestic group companies

Name of company	Major business	Date of review	Description
Tohcello Co., Ltd.	Manufacturing and marketing of synthetic resin films and cellophane	07/09/2002	Opinions exchanged on the main points of the safety management annual plan and elimination of major weak points of the company
Yamamoto Chemicals, Inc.	Manufacturing and marketing of heat-sensitive dyes, pressure-sensitive dyes, and near infrared absorbing	01/15/2003	Same as above
Honshu Chemical Industry, Ltd.	Manufacturing and marketing of various chemicals	01/16/2003	Same as above

ESH Audit Report for Printec Co., Ltd.

At Printec Co., Ltd., one of our group companies, an ESH audit was conducted to validate the system and performance of process safety and to facilitate the drafting and implementation of remedial measures concerning ESH activities.

Audit item	Description
1. Fiscal 2002 ESH management annual plan	• Fiscal 2001 status of labor accidents and cause analysis: Labor accidents due to human errors increased. • Fiscal 2002 annual plan: Place emphasis on actual job sites and employees, promote interactive audit, and enhance education to prevent PL-related accidents.
2. Explanation about objective of business group audit	• SQCD*: No QCD without safety • Business group slogan: "Safety First, Efficiency Second"
3. Explanation about Printec safety management activities	• Organization and basic policy • Fiscal 1997-2002 labor accidents • Environment-related claims received and actions taken • Fiscal 2001 annual plan and status of goal accomplishment • Discussions with job site leaders • Fiscal 2002 annual plan
4. Comments	• The audit was successful in that we were able to obtain frank opinions from employees at actual job sites. • You are encouraged to make efforts to prevent ESH activities from becoming stereotyped. For example, the goal could be changed every year. This will help bottom-up support of the activities . • A reward system may be introduced to encourage employees to report potential accident cases. • Now employees wear uniforms with half-length sleeves in summer. Uniforms with full-length sleeves may be necessary at workplaces where cuts are of concern. And others.

*SQCD: Safety,Quality,Cost,Day

Efforts at Overseas Subsidiaries and Affiliates

To fulfill its social responsibilities, the Mitsui Chemicals Group is promoting RC activities at overseas subsidiaries and affiliates. They observe Mitsui Chemicals' domestic efforts as a reference for their own RC management system and systematic business activities.

Mitsui Chemicals Group Companies in South-East Asia

Since fiscal 2001, we have been promoting and supporting RC activities at our group companies in South-East Asia, where our production activities will be based in the future. As the approach to RC differs widely among the South-Eastern countries, it is difficult to promote standardized RC activities in this area; some companies have already acquired all the international certifications (ISO9000, ISO14004 and OHSAS18001), while others have no current plan to do so. Siam Mitsui PTA Co., Ltd. in Thailand is ISO14001-certified.

We are supporting that company concerning specific approaches to promoting RC activities by providing necessary information, as well as conducting RC audit once or more per year. We will continue providing support in harmony with the nation's circumstances and the company's management status, in order to help it acquire other international certifications and improve its RC management level step by step systematically.

Siam Mitsui PTA Co., Ltd. acquires ISO14001 certification

Status of International Certifications at Mitsui Chemicals Group Companies in South-East Asia

Name of company	ISO9000s	ISO14001	OHSAS18001
MBS	●		▲ Management system certification acquired as required by the Singapore government
MPHS	06/30/2003		
MTK	Planned (FY 2003 second term)	Planned (FY 2004 first term)	Planned (FY 2004 first term)
ARUKI			
MEC	Planned (FY 2005)		
PNR	Planned (FY 2005)		
AMI	●		▲ System specified by BP available
SMPC	●	●	●
GSC		Planned (FY 2004)	Planned (FY 2004)
TMSC	●		
EPC	●		

● Certified No plan

Fiscal 2002 RC audit results for subsidiaries and affiliates in South-East Asia

Name of company	Major business	Date of audit	RC efforts etc.
MBS	Manufacturing and marketing of bisphenol A	06/05-07/2002	Occupational safety and health management system audited as required by the Singapore government.
		02/26/2003	Japanese-style RC activities were ongoing with high performance and system suitability.
MPHS	Manufacturing and marketing of phenol	06/11-12/2002	Occupational safety and health management system audited as required by the Singapore government.
PNR	Manufacturing and marketing of PET resin	02/19/2003	Effective RC activities were ongoing with support for safety information and educational materials from the leading company in the industrial complex.
MEC	Manufacturing and marketing of acrylamide	02/20/2003	Although the RC system was unsatisfactory, performance was good and awareness of RC was high.
AMI	Manufacturing and marketing of pure terephthalic acid	02/20/2003	Western-style RC activities were ongoing with efficient system of high performance.
ARUKI	Manufacturing and marketing of coating resins etc.	02/21/2003	Although awareness of safety had been rising, the system and performance were unsatisfactory.
MHM	Manufacturing and marketing of nonwoven fabrics	02/22/2003	The company just went into operation. A system with high performance was to be established.
SMPC	Manufacturing and marketing of pure terephthalic acid	02/24/2003	With commitment to RC, aggressive activities were ongoing. Internationally certified system available.
GSC	Manufacturing and marketing of polypropylene compounds	02/24/2003	Thai-style RC management was ongoing. Commitment to RC scheduled in near future.
TMSC	Manufacturing and marketing of coating resins etc.	02/25/2003	Basic RC activities were taking root. Necessary to infiltrate this effort into end employees.
EPC	Manufacturing and marketing of polystyrene	02/25/2003	Japanese-style RC activities, including subgroup activities, were ongoing with high performance.
MPHS	Manufacturing and marketing of phenol	02/26/2003	Japanese-style RC activities were ongoing with high performance and system suitability.
MELS	Manufacturing and marketing of elastomers	02/27/2003	Although the company just went into operation, a plan future RC activities was drafted.
MTK	Manufacturing and marketing of coating resins etc.	02/27/2003	A plan for acquiring international certifications for environmental management systems was finalized and RC activities were started.

Tree Planting Project in Thailand, an Energetic Country

To find new customers in growing need of chemical products in Asian countries, we are working under the bright sun with our local staffs from group companies in coastal industrial areas.

As such, the Mab Ta Put Works of SMPC in Thailand is implementing a tree planting project to create the world's most beautiful PTA manufacturing site in which many visitors and employees feel greater interest when seeing the series of silver towers standing in harmony with brilliantly colored tropical flowers.

(By President Yonemori of SMPC)


SIAM MITSUI PTA CO.,LTD

Communication with Society

As a member of the regional community, Mitsui Chemicals wants to contribute to the development of regions around its works. To this end, we are endeavoring to disclose a wide range of information to maintain good communication with all stakeholders.

Issuing Public Relations Magazines

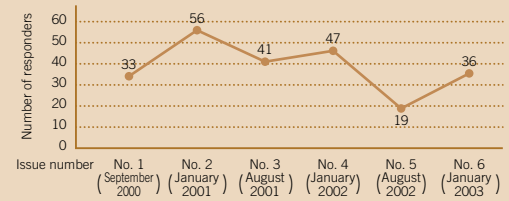
In order to encourage local people to understand the activities at our works and promote communication with local communities, public relations magazines are issued twice a year at each works.

Public relations magazines at each work

Comments from readers of Osaka Works' PR Magazine "Takashinohama"

Below are comments from readers of Osaka Works' PR Magazine Takashinohama, which they gave on postcards in response to quizzes in the magazine.

Total number of postcards recovered



Major comments

- Although it is always spooky to see the flames coming up out of the smokestacks, I realize now that you are manufacturing a wide range of products.
- I have been puzzled by the numerical figures of ISO14001, 9002 and 18001. The description is very informative and I have finally found out what they are.
- How do you prepare for the reportedly coming Great Nankai Earthquake? I'm concerned about security against such disasters.

Environmental Volunteer Activities

At our works, we conduct voluntary activities on a regular basis, including cleaning-up activities sponsored by local governments and those undertaken by voluntary employees, in order to preserve the global environment and to raise the public awareness of environmental preservation.

Osaka Bay Clean-up Campaign

Within the framework of the Environmental Month programs, we conducted the Osaka Bay Clean-up Campaign. A total of 120 employees, including those from subsidiaries and affiliates, joined the event to clean-up the pier yard in the coastal area near the Osaka Works.

Cleaning up near the pier

Regional communication activities at our works

Works	Organized tours	Publishing PR magazines	Volunteer activities
Ichihara	Number of tours: 10 Number of participants: 274 in total Plant tours for elementary school students, plant tours sponsored by Japan's Ministry of the Environment, and plant tours for members of the Japanese Federation of Chemical Workers' Unions, and for the Chinese Young Executives' Business Mission	Chigusa, issued 4 times a year	Cleaning up industrial roads Number of events: 10/year Number of participants: 133
Mobara Center			Cleaning up public roads and flowerbeds around the site Lunch hours on second Tuesday every month Number of events: 60
Nagoya	Number of tours: 9 Number of participants: 256 Members of women's associations and university students	Tangodori, issued twice a year	Cleaning up walks and public roads around the site Number of events: 2 Number of participants: 130
Osaka	Number of tours: 6 Number of participants: 493 Elementary school students	Takashinohama, issued twice a year	Cleaning up inside and outside the site Number of events: 4/year Number of participants: 536
Yamaguchi SM Plant			
Iwakuni-Ohtake	Number of tours: 49 Number of participants: 252	Ozegawa, issued twice a year	Cleaning up around the site Number of events: 2 Number of participants: 211
Omuta	Number of tours: 17 Number of participants: 286 Junior high school students, high school students, and general public	Tokayama, issued twice a year	Cleaning up around the site Number of events: 1/month
Sodegaura Center	Number of tours: 1 Number of participants: 21		Cleaning up beach areas Number of events: 4 Number of participants: 241

Members of women's association on plant tour to Nagoya Works

Plant Tours

We hold periodic plant tours to promote communication with local communities. We invite a broad range of people, from local residents and members of women's associations to elementary school to university students.

Iwakuni-Ohtake Works Accept Trainees of Japan International Cooperation Agency (JICA)

As part of our project for international cooperation in environmental activities, we provided a training program for nine JICA trainees of JICA at various plants in the Iwakuni-Ohtake Works. They had come from South American, African and Asian countries and are expected to take leadership in their own countries.

Nine trainees of JICA

Cooperation for the JRCC Regional Explanatory Meetings

To help the local community to understand responsible care, the Japan Responsible Care Council (JRCC) holds regional explanatory meetings throughout Japan in regions where petrochemical complexes are located.

Mitsui Chemicals, as a JRCC member, is cooperating for the council to promote the public understanding and awareness of RC by arranging meeting venues and providing lecturers.

Regional explanatory meeting in the Aichi region

Responding to Complaints

In addition to regular discussions, our works are striving to respond quickly to complaints made from time to time, and to act in an accountable way.

Examples of complaints and responses

Works	Description of complaint	Response
Iwakuni-Ohtake	Inquiry about acetic acid odor	Although the survey revealed no abnormalities, a supplementary scrubber will be installed at the exhaust portion of the product silo in the PTA*1 Section, where acetic acid is used.
Omuta	Complaint of noise from steam safety valve during startup operation after completion of RR*2	Safety valve setting was changed at the time of RR.

*1 PTA: Pure terephthalic acid *2 RR: Regular repair

Lending facilities for events sponsored by our works and regional activities	Participation in regional councils etc.	Providing lecturers for external training sessions
• Sponsoring traveling tours, summer festival, bonodori dancing, Sodegaura Industrial Festival, boys' baseball games, soccer games • Lending playground for movie location		A total of 15 lecturers provided for seminars on high-pressure gas, chemical equipment, and category I pressure containers, and Chiba University's "Organic Industrial Chemistry" course
• Mobara City Tanabata Festival • No-littering campaign	Mobara City Environmental Preservation Council	
• Softball games (held once a year) • Lending playground for various councils	Chairpersons and major executives of public associations in the six school areas around the works	
• Girls' kick-baseball games • Boys' soft baseball games	Periodical general meetings jointly held by governmental authorities and private companies in compliance with the Petroleum Disaster Prevention Law	Instructors for security seminars for people handling high-pressure gas Instructors for security seminars for people handling hazardous substances
• Cleaning up water way in the community area • Regional softball games, athletic meets, citizens' softball games	Disaster Prevention Council for Ube-Onoda Special Disaster Prevention Area	
• Sponsoring Mitsui Chemicals Autumn Festival • Lending a playground for athletic games and practice for boys' sport groups and junior high schools	Ohtake City Environmental Communication Council	Instructors for seminars for people wanting to be qualified for handling category I pressure containers Instructors for seminars on gas welding skills Instructors for security seminars for people handling high-pressure gas
• Sponsoring Works Festival • Lending playground for boys' soccer games and ground golf practices	Member of Omuta City Environmental Council	Qualified people responsible for security in high-pressure gas manufacture Qualified high-pressure gas transfer monitors

Mobara-odori dancing in Mobara City Tanabata Festival

Boys' soft baseball game at playground in Osaka Works

Recognition for Environmental Preservation and RC Activities

The Mitsui Chemicals Group has received various awards both at home and abroad for our exhaustive RC activities, contributions to environmental preservation, and excellence in technologies.

Receives the Japan Industrial Journal Award

Mitsui Chemicals' Catalysis Science Laboratory received the Japan Industrial Journal Advanced Technology Award from the Japan Industrial Journal newspaper. This award was established in 1986 to honor researchers and others who have posted outstanding research achievements. In 2002, company researchers were included in the scope of recipients. The Non-metallic Molecular Catalyst Team of the Catalysis Laboratory received the award for their study titled "Non-metallic Molecular Catalyst (Phosphazene Catalyst) — Its Function and Potential."

This catalyst is used to efficiently synthesize polyol, a raw material for polyurethane, and has the potential for application to other reactions. This accomplishment was praised by the selection committee.

Our representative is the 5th from the left in the back row. (Photo courtesy of the Japan Industrial Journal)

US Affiliate Receives the Responsible Care Excellence Award

Anderson Development Company (ADC), Michigan, USA, was recognized by the American Chemical Council (ACC) for three remarkable achievements in responsible care activities:

- The number of serious accidents or leaks was reduced by more than 25% across the past five years for the company as a whole.
- The NF3 factory had no accidents or dangerous leaks in 2001.
- The Gary Factory, Indiana had no lost time injuries in 2001.

These awards were bestowed for the ADC's activities in the "Employee Health & Safety" code, one of the seven codes of responsible care specified by ACC.

ADC Recipients

Receives the Silver Award

Mitsui Bisphenol Singapore Pet Ltd. (MBS) and Mitsui Phenol Singapore Pet Ltd. (MPHS) in Singapore received the Annual Safety Performance Award (Silver Award) from Singapore's Ministry of Labor for their performance and safety activities in fiscal 2002. At the commendation ceremony on July 24, shields were presented by the Labor Minister. This was the second time for MBS and the first time for MPHS.

Receives award from Singapore's Ministry of Labor

List of External Awards in Fiscal 2002

Date	Recipient	Award	Achievement	Sponsor
May 2002	Iwakuni-Ohtake Works	First Award Class: Certificate of Accident-Free Hours	5.30 million consecutive hours without an accident	Labor Standards Bureau, Ministry of Health, Labor and Welfare
July 2002	ADC, USA	Responsible Care Excellence Award	There have been no lost time injuries since the plant went into operation	American Chemical Council
July 2002	Yamaguchi SM Plant	Excellence Award, The Yamaguchi Prefectural Labor Bureau Director's Award	Proactive efforts for raising awareness of hazards among all employees, and 9 consecutive years without an accident or dangerous leak since the plant went into operation	Labor Standards Bureau, Yamaguchi Prefecture
July 2002	Ichihara Works	Excellence Award, The Chiba Prefectural Labor Bureau Director's Award	Outstanding achievements in various activities for occupational safety and health, serving as a good example for local business sites	Chiba Prefecture
July 2002	MCEC*1 and Iwakuni-Ohtake Works	Fourth Award Class: Certificate of Accident-Free Hours	3 million consecutive hours without a labor accident (4th award class as specified by Japan's Ministry of Health, Labor and Welfare) among employees of the company and employees of contractors	Ministry of Health, Labor and Welfare
July 2002	Sodegaura Center	The Japan Industrial Journal Advanced Technology Award	The fact that the catalyst is used to efficiently synthesize polyol, a raw material for polyurethane, and has the potential for application to other reactions	Nihonkogyo Shimbun Company
July 2002	MBS*2, MPHS*3	Annual Safety Performance Awards	Operation without an accident or dangerous leak and conduct of safety activities	Singapore's Ministry of Labor
September 2002	Miike Dyes Works, Ltd.	Award for Efforts	Achievements from various ESH activities	Labor Bureau, Fukuoka Prefecture
November 2002	Sodegaura Center	Zero-Accident Award	Sodegaura site integration work completed without an accident or dangerous leak	Labor Standards Bureau, Ministry of Health, Labor and Welfare
November 2002	Sumitomo Mitsui Polyolefin Co., Ltd.	Technical Excellence Award	Elimination of coating process by micro-dispersing aluminum particles in bumper material which confer metallic appearance to bumpers	Toyota Motor Corporation
December 2002	Hokkaido Mitsui Chemicals, Inc.	TPM Excellence Category I Award	Achievements from unified efforts for TPM activities by 7 companies in the same industrial area	Japan Institute of Plant Maintenance
March 2003	System Division, Osaka Works	SCEJ Technical Excellence Award	Significance in chemical engineering of the fact that virtual plant simulation technology on computers was expanded to the plant level.	Society of Chemical Engineers, Japan

*1 Mitsui Chemicals Engineering Co., Ltd. *2 MITSUI BISPHENOL SINGAPORE PTE LTD *3 MITSUI PHENOL SINGAPORE PTE LTD

History of Responsible Care

2000s

Initiatives of the Mitsui Chemicals Group

2003 Apr. 6th Assembly of the Responsible Care Committee
Mar. First International Symposium on Catalysis Science
OHSAS18001 certification (Ichihara Works, Mobara Center)
ISO14001 certification acquired (Yamaguchi SM Plant)
2002 Oct. "The Responsible Care Report 2002" published
Framework for environment-related business operations established
Aug. Qualified as business site that handles high-pressure gas (Iwakuni-Ohtake Works)
Apr. Risk management rules formulated
ISO14001 certification (Iwakuni-Ohtake Works)
5th Assembly of the Responsible Care Committee
Mar. ISO14001 certification (Omuta, Osaka, Shimonoseki, Mitsui Chemicals)
2001 Dec. Ofuna Center (Laboratories) closed and destroyed (soil decontamination)
Oct. "The Responsible Care Report 2001" published
Jun. Concept of eco-efficiency introduced
Environmental accounting system introduced
Apr. 4th Assembly of the Responsible Care Committee
Mar. ISO14001 certification (Ichihara Works)
2000 Oct. The company-wide mental health promotion project formulated
Apr. ISO9002 certification (Yamaguchi SM Plant)
3rd Assembly of the Responsible Care Committee
Jan. "The Responsible Care Report 2000" published

Trends in Japan

2003 Law Concerning the Examination and Regulation of Manufacture etc. of Chemical Substances amended

2002 Soil Pollution Prevention Law enacted
Kyoto Protocol ratified
Enforcement Ordinance for the Waste Disposal and Public Cleansing Law amended

2001 Law Concerning Special Measures against PCB enacted

2000 Law Regarding the Promotion of the Use of Recycled Resources amended
Green Purchasing Law enacted
Basic Law for Establishing the Recycling-based Society

World trends

2003 3rd World Water Forum held (Japan)

2002 The Johannesburg Summit held

2002 Report of the OECD Environmental Performance Review on Japan published
The Guidelines for Waste Plastics (Basel Convention WG) adopted

2001 COP7 (Marrakesh Conference) held
International Freshwater Conference held (Germany)

2000 2nd World Water Forum held (Netherlands)
COP6 (Hague Conference) held

1990s

Initiatives of the Mitsui Chemicals Group

1999 Oct. Voluntary guidelines for reduction of environmental load of atmospheric emissions (to 2005)
Jun. Environmental preservation agreement with Ube City (Yamaguchi SM Plant)
Apr. 2nd Assembly of the Responsible Care Committee
1998 Apr. 1st Assembly of the Responsible Care Committee
Mar. ISO9002 certification (Omuta Works)
Sludge decomposition process using ozone introduced (zero emissions)
1997 Oct. Company rules concerning responsible care prepared (environmental conservation, occupational safety and health, product safety, quality management)
Corporate Mission and the Basic Policy for Responsible Care formulated
Mitsui Chemicals founded

Mitsui Petrochemical Industries, Ltd.

1997 Jul. Qualified for handling high-pressure gas (Iwakuni-Ohtake Works)

1996 Mar. Meeting of the Safety and Environment Division held

1995 Mar. Commitment to responsible care declared

1993 Dec. ISO9001 certification (Ichihara Works)
Oct. ISO9001 certification (Iwakuni-Ohtake Works)
Apr. Voluntary Plan on the Environment formulated and published
Mar. The Safety Division Council renamed the Safety Division Council; projects for energy conservation, reductions in the use of specified chlorofluorocarbons and waste volume, waste reduction efforts based on the "3R" concept, and office paper waste reduction campaign initiated

1992 Dec. Global Environment Division established
Jul. PRTR activities started as a member of the Japan Chemical Industry Association

1991 Jun. The Plastic Disposal Promotion Office established
The Safety Division (works) renamed the Safety and Environment Division

Mitsui Toatsu Chemicals, Inc.

1997 Nov. Cogeneration system introduced
Aug. Responsible Care 1996 prepared and published
Apr. Voluntary program for air pollutant control initiated

1996 Dec. ISO9001 certification (Nagoya Works)
Sep. Responsible Care 1995 prepared and published
Mar. Assembly of the Responsible Care Committee
Environmental preservation agreement with Onoda City (Yamaguchi Works)

Feb. Energy conserved by rationalizing duties
1995 Mar. Commitment to responsible care declared
Feb. The Responsible Care Committee established
1994 Jan. ISO9002 certification (Osaka)

1993 Apr. Voluntary Plan on the Environment formulated
Energy conservation and waste reduction plan formulated

1992 Jul. PRTR activities started as a member of the Japan Chemical Industry Association

Trends in Japan

1999 PRTR Law enacted
Law Concerning Special Measures against Dioxins enacted

1998 Law for Promoting Measures against Global Warming enacted

1997 Keidanren's Voluntary Action Plan on the Environment formulated

1996 Measures against Hazardous Air Pollutants

1995 The Law for Promotion of Sorted Collection and Recycling of Containers and Packaging enacted

1993 The Environment Agency announced the "Action Guidelines for Environmentally Friendly Companies"
Environment Basic Law enacted
Energy Conservation and Recycling Law enacted

1992 The Ministry of International Trade and Industry requested a Voluntary Plan on the Environment

1991 Keidanren's Global Environment Charter formulated
Law for Promotion of Utilization of Recycled Resources enacted

1990 JCIA Basic Policy on the Environment and Safety (Basic Policy on Responsible Care) formulated

World trends

1999 COP5 (Bonn Congress) held

1998 COP4 (Buenos Aires Congress) held

1997 COP3 (Kyoto Congress) held
Kyoto Protocol adopted

1st World Water Forum held (Morocco)

1996 COP2 (Geneva Congress) held

1996 International Standards ISO14001 issued

1996 "Our Stolen Future"
by John Peterson Myers published

1995 COP1 (Berlin Congress), the 1st Assembly of the United Nations Framework Convention on Climate Change

1994 UNEP Ethical Code formulated

1992 The United Nations Framework Convention on Climate Change adopted

1992 The United Nations Conference on Environment and Development (UNCED) held
The Rio de Janeiro Declaration on the Environment and Development
The Agenda 21 adopted

1990 The International Council of Chemical Associations (ICCA) founded and international activities for responsible care initiated

1980s

Initiatives of the Mitsui Chemicals Group

1988 Mar. Qualified for handling high-pressure gas (Ichihara Works)

1987 Oct. New Technology Research and Development Center founded
Jul. Pollution prevention agreement with Sodegaura Town, Chiba Prefecture concluded (Sodegaura Center)

1989 Dec. Pollution prevention agreement with Mobara City (Mobara Center)

1988 Mar. Qualified for handling high-pressure gas (Osaka Works)

1980 Mar. Pollution prevention agreement with Shimonoseki City (Shimonoseki)

Jan. Energy conserved by conversion of raw materials and fuels

Trends in Japan

1989 Global environmental issues mentioned to in the Environmental White Paper

1988 Ozone Layer Protection Law enacted

1986 The approval system for business sites that handle high-pressure gas went into effect

1981 Regulations on total emissions of NOx went into effect

World trends

1987 Montreal Protocol adopted

1985 Ozone Layer Protection Treaty adopted

1984 The Canadian Chemical Producers' Association proposed the concept of responsible care

1970s

Initiatives of the Mitsui Chemicals Group

1978 Feb. Greening agreement with Ichihara City, Chiba Prefecture concluded (Ichihara Works)

1976 Oct. The Safety Measures Division renamed the Safety Division Council

1975 Jan. Local PR magazine Ozegawa first published (Iwakuni Works)

1973 Nov. Pollution prevention agreement with Ohtake City, Hiroshima Prefecture concluded (Ohtake Works)

1971 Nov. Safety and Environment Division established in the Head Office

Apr. Pollution prevention agreement with Ichihara City, Chiba Prefecture concluded (Chiba Works)

1976 Equipment for exhaust gas desulfurization and denitrification installed

1975 May Manufacturing of caustic soda by the mercury process discontinued (Omuta Works)
Wastewater treatment facility enhanced

Jan. Pollution prevention agreement with Takaishi City (Osaka Works)

1974 Dec. The diaphragm process introduced to replace the mercury-NaCl electrolytic process for caustic soda manufacturing (Nagoya Works)
Environment and Safety Division established (Head Office and Works)

1973 Aug. Caustic soda manufacturing facility closed (Osaka Works)

1972 Jun. Pollution prevention agreement with Sunagawa City (Hokkaido)

1971 Nov. Pollution prevention agreement with Yokohama City (Ofuna)

Apr. Pollution prevention agreement with Omuta City (Omuta Works)

Mar. Pollution prevention agreement with Nagoya City (Nagoya Works)

Trends in Japan

1979 Regulations on total generation of COD put into force

1975 Law for the Prevention of Disasters at Oil Complexes etc. enacted

1974 Regulations on total emissions of SOx went into effect

1973 Chemical Substances Quake Disaster Control Law enacted
Pollution-related Health Damage Compensation Law enacted
Law Concerning Provisional Measures for Conservation of the Environment of the Seto Inland Sea enacted
The diaphragm process introduced to replace the mercury-NaCl electrolytic process for caustic soda manufacturing
Environmental standards concerning NOx and other air pollutants established

1972 Law on Industrial Safety and Hygiene enacted
The Environmental Pollution White Paper published

1971 Central Council for Environmental Pollution Control established
The Environment Agency established

1970 Offensive Odor Control Law enacted
14 bills passed at the "Pollution Session" of the National Diet
Water Pollution Control Law enacted
Waste Disposal Law enacted

World trends

1972 The United Nations Environment Program (UNEP) established

1972 The Declaration on the Human Environment adopted at an assembly of the United Nations Conference on the Human Environment (Stockholm)

1972 "Limits to Growth" published by the Club of Rome

1960s

Initiatives of the Mitsui Chemicals Group

1967 Mar. Chiba Works went into operation

1969 Aug. Qualified as 1st grade business site that handles high-pressure gas (Mobara Center)
Jan. Safety management rules formulated
1968 Oct. Mitsui Toatsu Chemicals, Inc. founded

Toyo Koatsu Kogyo | Mitsui Chemical Industry

1965 Feb. Osaka Petrochemical Industries, Ltd. founded

Trends in Japan

1968 Air Pollution Control Law enacted
Noise control regulations

1967 Basic Law for Environmental Pollution Control enacted

1962 Japan's first smoke emission regulations enacted

World trends

1962 Rachel Carson's "Silent Spring" published

1950s

Initiatives of the Mitsui Chemicals Group

1958 Apr. The Iwakuni Works went into operation
1955 Jul. Mitsui Petrochemical Industries, Ltd. founded

Trends in Japan

1951 High-Pressure Gas Control Law enacted
1950 The Poisonous and Deleterious Substances Control Law enacted

Data Sheets

Site Reports

Ichihara Works

Location : 3, Chigusa-kaigan, Ichihara, Chiba 299-0108

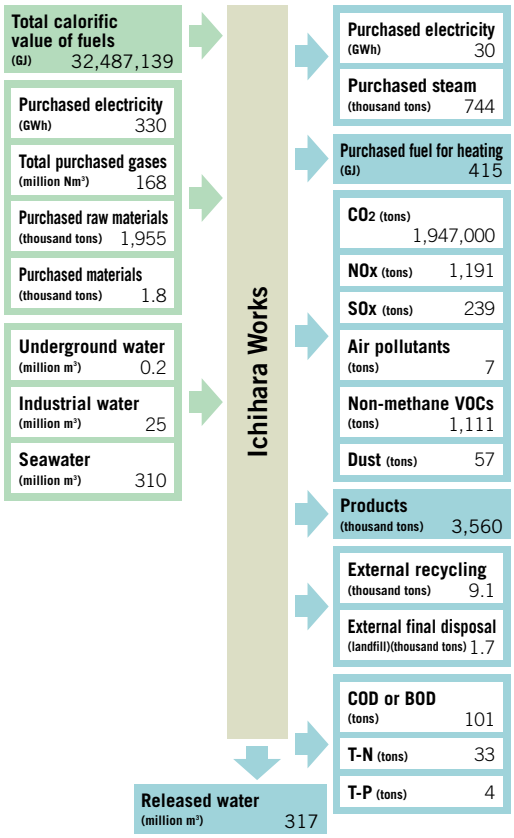
Area : 1,390,000m²

Major products

- Petrochemicals:
  Olefin, aromatic hydrocarbons, polyethylene, and TBA
- Basic chemicals:
  Phenol, BPA, acetone, epoxy resin, ethylene oxide, ethylene glycol, and aniline
- Functional polymeric materials:
  Elastomers
- Functional chemicals and engineered materials:
  Synthetic pulp

We seek to create a "friendly works" that can continue to evolve in harmony with local communities, by improving our activities concerning the environment, process safety and product quality, in accordance with the spirit of responsible care.

Isamu Takeuchi, General Manager



Mobara Center

Location : 1900, Togo, Mobara, Chiba 297-8666

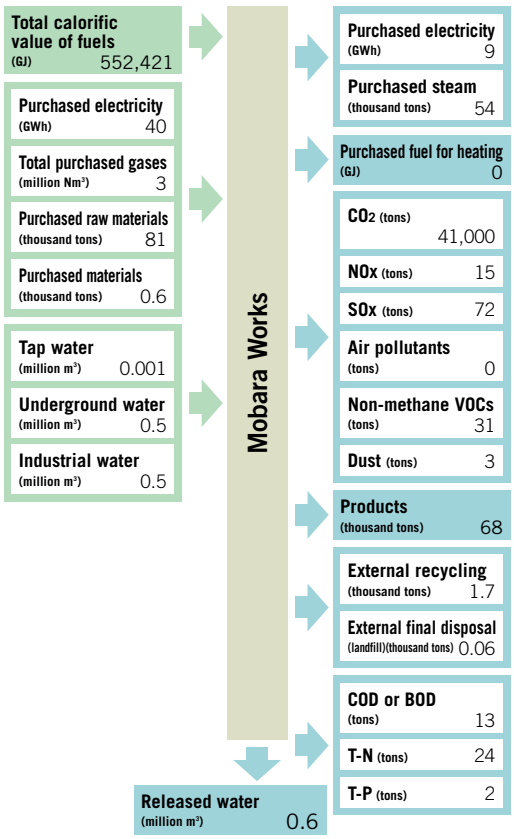
Area : 550,000m²

Major products

- Basic chemicals:
  Methacrylamide, acrylamide, surfactants, and flocculants
- Functional polymeric materials:
  Unsaturated polyester resin, functional adhesives, coating resins, and paper processing resin
- Functional chemicals and engineered materials:
  Toner binders

The Mobara Center is located at the center of the Boso Peninsula. It produces paint, printing toner ingredients and other chemicals. To keep the natural environment green, we are striving to reduce the environmental load of atmospheric emissions using natural gas as a fuel. We are also working to reduce industrial waste.

Masanari Iguchi, General Manager



Nagoya Works

Location : 2-1, Tangodori, Minami-ku, Nagoya 457-8522

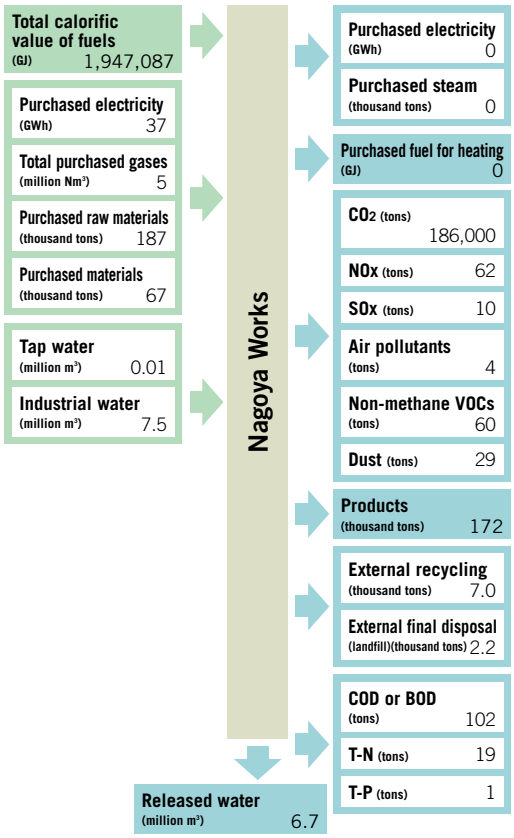
Area : 380,000m²

Major products

- Basic chemicals:
  Bisphenol A and nonylphenol
- Functional polymeric materials:
  Polyacrylonitrile resin, special phenolic resin, urethane resin, and polyimide products
- Functional chemicals and engineered materials:
  Surgical suture material (PGA), breathable films, surface-protective tapes, flexible printed circuit materials, and sputtering products

Located in an urban area, the Nagoya Works is producing functional chemicals and other products. We are operating our works with the highest priority on securing environmental integrity and safety.

Shinzo Takarada, General Manager



Osaka Works

Location : 1-6 Takasago, Takaishi, Osaka 592-8501

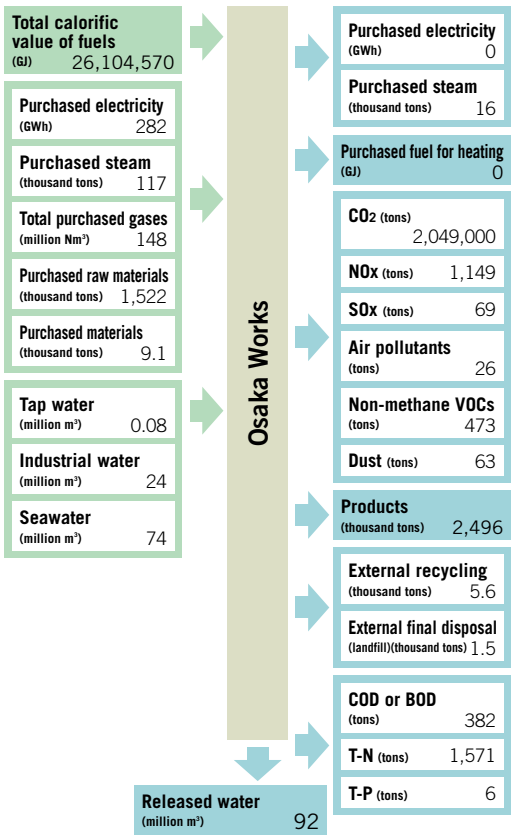
Area : 1,550,000m²

Major products

- Petrochemicals:
  Olefin, aromatic hydrocarbons, and TBA
- Basic chemicals:
  Ammonia, urea, phenol, formalin, melamine, acrylonitrile, ethanolamine, acrylamide, IPA, ethylene oxide, and ethylene glycol
- Functional polymeric materials:
  Adhesives, coating resins, and unsaturated polyester resin
- Functional chemicals and engineered materials:
  Silane gas

At the Osaka Works, we are striving to create a factory with public confidence by environmental preservation and safety, complete quality management, and harmony with local society.

Yoshio Sugita, General Manager



Yamaguchi SM Plant

Location : 13-3, Aza-Nishioki, Oaza-Nishiokinoyama, Ube, Yamaguchi 759-0205

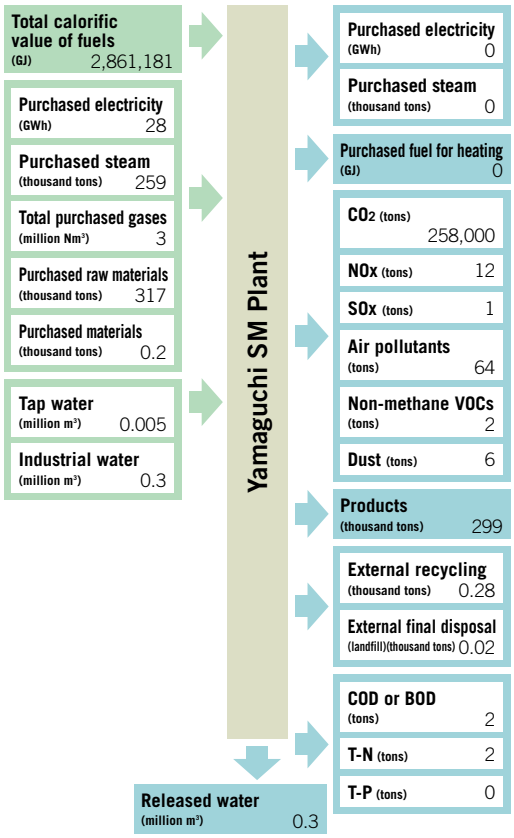
Area : 298,000m²

Major products

Styrene monomer

Since current methods of producing the styrene monomer consume a great deal of energy, we are developing other less energy- and resource-intensive methods amenable to safe and steady operations.

Masayuki Akutsu, General Manager



Iwakuni-Ohtake Works

Location : 6-1-2 Waki, Waki-cho, Kuga-gun, Yamaguchi 740-0061

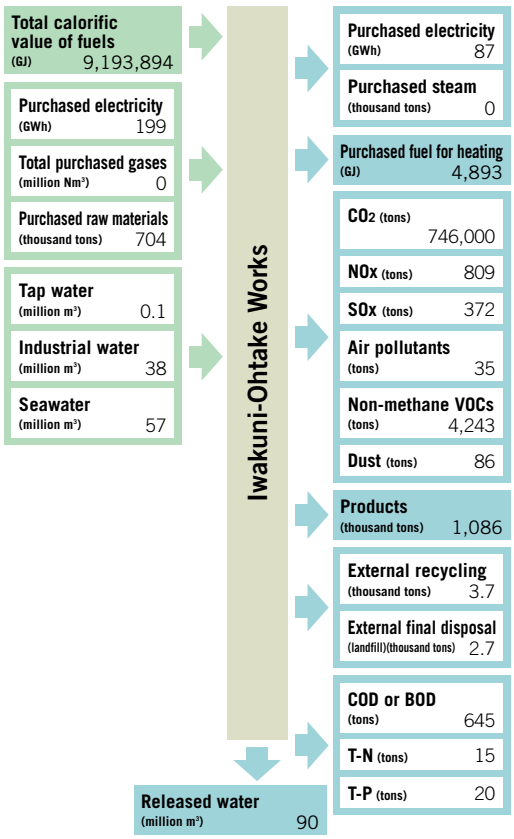
Area : 1,000,000m²

Major products

- Basic chemicals:
  Purified terephthalic acid, hydroquinone, resorcinol, meta/para-cresol, PET resin, and MIBX
- Functional polymeric materials:
  Wax, petroleum resin, Lucant, TPX, Million, Apel, and Arlen
- Functional chemicals and engineered materials:
  Gas pipes, pellicle, and olefin polymerization catalyst

We are examining all of our assumptions about what is really necessary for environmental safety. Our goal is to operate our works while we continually improve our teamwork and find ways to turn risks into opportunities.

Kenji Yoshimura, General Manager



Omuta Works

Location : 30, Asamuta-cho, Omuta, Fukuoka 836-8610

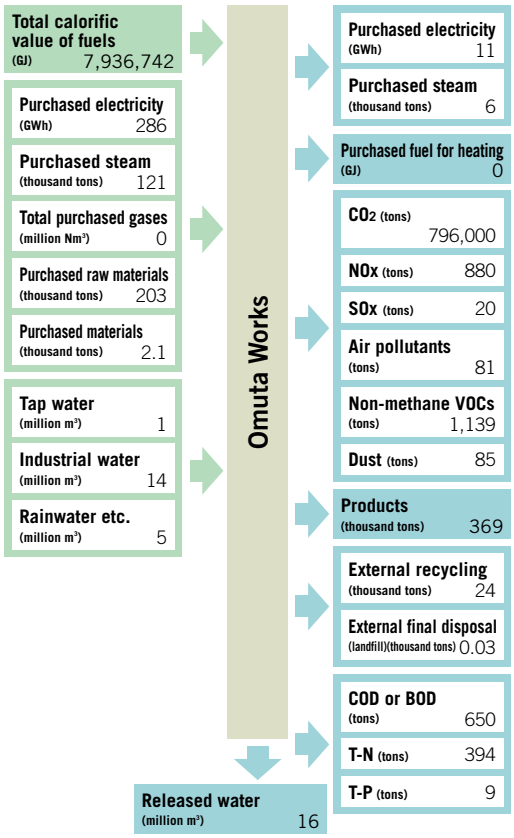
Area : 2,260,000m²

Major products

- Basic chemicals:
  Caustic soda and hydrochloric acid
- Functional polymeric materials:
  TDI, MDI, NDI
- Functional chemicals and engineered materials:
  Monomers for spectacle lenses, amino acids, surfactants, pressure- or heat-sensitive paper materials, resin additives, dyes/pigments, functional colorants, taurine, Trebon (insecticide), Starkle (insecticide), Nebijin (fungicide), chloropicrin (fungicide), and Aniverse (acaricide)

It is our works' role to be a sound corporate citizen through our RC activities. In addition to environmental activities, including environmental load reduction and waste reduction, we will make efforts to maintain positive social communications with local residents.

Ryoichi Konishi, General Manager



Sodegaura Center (Laboratories)

Location : 580-32, Nagaura, Sodegaura. Chiba 299-0265

R&D areas

- Polyolefin Laboratory : Polyethylene, polypropylene, and their blends and processed products
- Functional Polymeric Materials Laboratory : Functional polymeric materials and their blends and processed products
- Functional Materials Laboratory : Electronic circuit materials, semiconductor materials, display materials, data recording materials, and sanitation materials
- Functional Chemicals and Engineered Materials Laboratory : New agrochemical innovations, plant breeding, health care materials, and fine chemicals
- Catalysis Science Laboratory : Compound formula design to catalyst development, and catalytic reaction basic process development
- Materials Science Laboratory : Invention of new high-performance products, from molecules to complexes
- Process Technology Laboratory : Industrialized technology in chemistry

We emphasize environmental preservation and process safety in our research programs and motivate all our personnel toward these goals. As advocated in our corporate philosophy, we are also working to develop environmentally friendly technologies and products.

Akihiro Yamaguchi, Center Executive, R&D Division

PRTR Data (only substances with an annual usage of 1 ton or more are listed)

Ichihara Works (tons/year, mg-TEQ/year for dioxins)

Name of substance	Released into air	Released into water	Released on land	Transfer amount
Zinc compounds (water-soluble)	0.000	0.473	0.000	0.659
Aniline	0.314	0.000	0.000	0.000
Antimony and its compounds	0.000	0.000	0.000	30.500
4, 4'-Isopropylidene diphenol (also called bisphenol A)	0.001	0.003	0.000	0.000
Ethylbenzene	0.674	0.000	0.000	0.000
Ethylene oxide	1.335	0.000	0.000	0.000
Ethylene glycol	0.045	0.000	0.000	0.000
Epichlorohydrin	2.693	0.000	0.000	0.000
Xylene	4.660	0.005	0.000	0.000
Vanadium pentaoxide	0.000	0.000	0.000	0.456
Tetrachloroethylene	0.100	0.003	0.000	0.000
Toluene	11.885	0.001	0.000	0.000
Phenol	0.382	0.024	0.000	0.000
Hydrogen fluoride and its water-soluble salts	0.000	9.452	0.000	0.000
Benzene	5.831	0.004	0.000	0.000
Boron and its compounds	0.000	3.544	0.000	0.000
α-Methylstyrene	0.055	0.000	0.000	0.000
Dioxins	0.7	0.5	0.0	0.0

Mobara Center (tons/year)

Name of substance	Released into air	Released into water	Released on land	Transfer amount
Acrylic acid	0.001	0.000	0.000	0.126
Ethyl acrylate	0.007	0.000	0.000	0.313
Methyl acrylate	0.000	0.000	0.000	0.018
Acrylonitrile	0.157	0.000	0.000	0.000
Ethylene glycol	0.000	0.000	0.000	0.312
Epichlorohydrin	0.002	0.000	0.000	0.225
ε-Caprolactam	0.000	0.000	0.000	0.021
Xylene	0.048	0.000	0.000	16.138
Styrene	0.345	0.000	0.000	6.863
Terephthalic acid	0.000	0.000	0.000	1.668
Toluene	0.044	0.000	0.000	3.397
Formaldehyde	0.000	0.000	0.000	26.553
Phthalic anhydride	0.001	0.000	0.000	7.310
Maleic anhydride	0.001	0.000	0.000	7.207
Methacrylic acid	0.500	0.000	0.000	0.234
Methyl methacrylate	6.710	0.000	0.000	3.554
Methacrylonitrile	19.445	0.000	0.000	0.000
Methyl-1,3-phenylene-diisocyanate	0.000	0.000	0.000	0.091

Osaka Works (tons/year, mg-TEQ/year for dioxins)

Name of substance	Released into air	Released into water	Released on land	Transfer amount
Zinc compounds (water-soluble)	0.000	3.455	0.000	0.160
Acrylamide	0.033	0.069	0.000	1.000
Acrylic acid	0.059	0.000	0.000	1.528
Ethyl acrylate	0.024	0.000	0.000	0.000
Acrylonitrile	8.974	0.001	0.000	7.702
Acetaldehyde	0.002	0.000	0.000	0.000
2-Aminoethanol	0.105	0.416	0.000	0.000
Isoprene	0.064	0.000	0.000	0.000
4, 4'-Isopropylidene diphenol (also called bisphenol A)	0.195	0.014	0.000	0.400
Ethylbenzene	2.524	0.000	0.000	14.716
Ethylene oxide	1.759	0.000	0.000	0.000
Ethylene glycol	0.047	0.073	0.000	0.000
1,2-Epoxypropane (also called propylene oxide)	0.000	0.000	0.000	2.501
Xylene	0.369	0.000	0.000	23.274
Glyoxal	0.872	0.000	0.000	0.000
Chloroethylene (also called vinyl chloride)	10.121	0.001	0.000	0.000
Chloroform	0.500	0.000	0.000	0.227
Vanadium pentaoxide	0.000	0.682	0.000	0.000
Vinyl acetate	0.008	0.000	0.000	0.000
1,4-Dioxane	0.039	0.033	0.000	0.000
Dicyclohexylamine	0.000	0.008	0.000	0.000
1,2-Dichloroethane	0.027	0.000	0.000	0.000
O-Dichlorobenzene	0.000	0.000	0.000	0.146
N,N-Dimethylformamide	0.022	0.000	0.000	4.508
Styrene	6.878	0.002	0.000	104.254
Terephthalic acid	0.000	0.000	0.000	80.136
Water-soluble copper salts (except complex salts)	0.000	0.079	0.000	7.381
Toluene	10.160	0.017	0.000	13.614
Nonylphenol	0.000	0.001	0.000	0.000
Arsenic and its inorganic compounds	0.000	0.002	0.000	0.044
Hydrazine	0.000	0.123	0.000	0.000
Hydroquinone	0.000	0.001	0.000	0.000
Phenol	2.513	0.235	0.000	0.961
1,3-Butadiene	0.067	0.000	0.000	0.000
Di-n-butyl phthalate	0.000	0.000	0.000	0.016
Benzene	8.301	0.127	0.000	0.000
Formaldehyde	0.139	0.025	0.000	4.664
Manganese and its compounds	0.000	0.000	0.000	0.348
Phthalic anhydride	0.006	0.000	0.000	0.000
Maleic anhydride	0.002	0.000	0.000	0.000
Methacrylic acid	0.161	0.000	0.000	0.000
Methyl methacrylate	3.379	0.000	0.000	29.506
α-Methylstyrene	1.806	0.006	0.000	0.000
Molybdenum and its compounds	0.000	0.263	0.000	7.664
Dioxins	0.0	0.2	0.0	12.8

Yamaguchi SM Plant (tons/year, mg-TEQ/year for dioxins)

Name of substance	Released into air	Released into water	Released on land	Transfer amount
Ethylbenzene	0.111	0.000	0.000	0.000
Xylene	0.001	0.000	0.000	0.000
2,4-Dinitrophenol	0.000	0.000	0.000	0.032
Styrene	0.019	0.000	0.000	0.000
Toluene	0.023	0.000	0.000	0.000
Benzene	64.236	0.000	0.000	0.000
α-Methylstyrene	0.001	0.000	0.000	0.000
Dioxins	1.6	0.0	0.0	0.0

The benzene emissions from the Iwakuni-Ohtake Works were traced to unplanned production. We are taking measures beyond the chemical industry's program for voluntary management of air pollutants.

The chloroethylene (also called vinyl chloride) emissions from the Omuta Works were traced to unplanned production. We are taking measures beyond the chemical industry's program for voluntary management of air pollutants.

Nagoya Works (tons/year)

Name of substance	Released into air	Released into water	Released on land	Transfer amount
Ethyl acrylate	0.004	0.021	0.000	0.004
Methyl acrylate	0.009	0.383	0.000	0.096
Acrylonitrile	1.062	3.024	0.000	0.288
4, 4'-Isopropylidenediphenol (also called bisphenol A)	0.246	0.009	0.000	0.000
Ethylene oxide	1.236	1.168	0.000	0.000
1,2-Epoxypropane (also called propylene oxide)	31.773	0.786	0.000	0.000
1,4-Dioxane	0.125	0.000	0.000	0.000
Dichloromethane (also called methylene chloride)	1.602	0.310	0.000	32.927
Styrene	0.009	0.000	0.000	0.000
Toluene	1.656	0.000	0.000	43.022
Nonylphenol	0.001	0.003	0.000	0.000
Phenol	1.421	0.000	0.000	0.000
1,3-Butadiene	0.127	0.000	0.000	0.000
Bis(2-ethylhexyl) phthalate	0.005	0.000	0.000	0.324
Benzaldehyde	0.021	0.000	0.000	0.000
Benzene	0.000	0.000	0.000	7.520
Formaldehyde	0.043	0.000	0.000	0.000
n-Butyl methacrylate	0.002	0.000	0.000	0.000

Iwakuni-Ohtake Works (tons/year, mg-TEQ/year for dioxins)

Name of substance	Released into air	Released into water	Released on land	Transfer amount
Zinc compounds (water-soluble)	0.000	0.133	0.000	0.000
Acetaldehyde	1.635	0.000	0.000	0.000
Aniline	0.048	0.000	0.000	0.000
Ethylene glycol	3.906	0.000	0.000	0.000
1,2-Epoxypropane (also called propylene oxide)	10.820	0.000	0.000	0.000
Xylene	307.709	0.000	0.000	0.000
Cresol	0.151	0.064	0.000	0.000
Chlorodifluoromethane (also called HCFC-22)	0.020	0.670	0.000	0.000
1,4-Dioxane	0.000	0.000	0.000	0.000
Cyclohexylamine	0.082	0.184	0.000	0.000
Dichloromethane (also called methylene chloride)	0.102	0.000	0.000	0.000
Trichlorofluoromethane (also called CFC-11)	0.199	0.000	0.000	0.000
Toluene	85.089	0.226	0.000	0.000
Phenol	0.012	0.251	0.000	0.000
Hydrogen fluoride and its water-soluble salts	0.000	0.042	0.000	0.000
Bromomethane (also called methyl bromide)	108.694	0.000	0.000	0.000
Hexamethylenediamine	0.027	0.000	0.000	0.000
Benzene	32.422	0.000	0.000	0.000
Formaldehyde	0.844	0.000	0.000	0.000
α-Methylstyrene	0.025	0.000	0.000	0.000
Dioxins	3.3	0.1	0.0	342.3

Omuta Works (tons/year, mg-TEQ/year for dioxins)

Name of substance	Released into air	Released into water	Released on land	Transfer amount
Zinc compounds (water-soluble)	0.000	0.876	0.000	2.070
Acetonitrile	0.020	0.000	0.000	0.000
Acrylonitrile	4.404	1.003	0.000	3.335
Aniline	0.768	0.000	0.000	179.594
2-Aminoethanol	0.059	0.000	0.000	0.000
m-Aminophenol	0.000	0.000	0.000	0.574
Ethylbenzene	9.106	0.000	0.000	13.450
Ethylene glycol	0.032	0.000	0.000	26.629
Epichlorohydrin	0.706	0.000	0.000	0.003
Xylene	40.981	0.000	0.000	201.133
Cresol	0.000	0.000	0.000	15.083
Chromium and trivalent chromium compounds	0.000	0.292	0.000	53.337
Hexavalent chromium compounds	0.000	0.007	0.000	0.099
Chloroethylene (also called vinyl chloride)	29.345	0.000	0.000	0.479
Chlorodifluoromethane (also called HCFC-22)	0.799	0.000	0.000	0.000
Chlorobenzene	15.416	0.000	0.000	2.600
Chloroform	0.620	0.000	0.000	5.130
Salicylic aldehyde	0.000	0.092	0.000	0.000
Inorganic cyanide compounds (except complex salts and cyanates)	0.000	1.015	0.000	0.000
Carbon tetrachloride	6.821	0.000	0.000	130.345
Cyclohexylamine	0.000	0.000	0.000	9.824
1, 2-Dichloroethane	7.869	0.000	0.000	0.044
O-Dichlorobenzene	33.004	0.000	0.000	41.195
Dichloromethane (also called methylene chloride)	9.140	0.000	0.000	6.136
Dinitrotoluene	0.000	0.283	0.000	3.973
2, 4-Dinitrophenol	0.000	0.000	0.000	55.401
N,N-Dimethylformamide	0.460	20.019	0.000	103.990
Styrene	2.303	0.000	0.000	0.000
Thiourea	0.000	0.000	0.000	1.414
Thiophenol	0.046	0.000	0.000	0.000
Water-soluble copper salts (except complex salts)	0.000	0.710	0.000	2.642
1, 3, 5-Trimethylbenzene	0.430	0.000	0.000	0.000
O-Toluidine	3.913	0.000	0.000	352.364
Toluene	529.775	1.228	0.000	173.893
2, 4-Toluenediamine	0.000	0.000	0.000	157.745
Lead and its compound	0.000	0.000	0.000	0.464
Nickel compounds	0.000	0.000	0.000	0.046
Nitrilotriacetic acid	0.000	0.000	0.000	6.912
Nitrobenzene	3.597	0.000	0.000	36.719
Carbon disulfide	0.001	0.000	0.000	0.005
Nonylphenol	0.000	0.000	0.000	0.244
Barium and its water-soluble compounds	0.000	0.000	0.000	22.094
Picric acid	0.013	0.000	0.000	10.494
Arsenic and its inorganic compounds	0.000	0.021	0.000	0.000
Hydrazine	0.000	0.146	0.000	2.212
Pyridine	0.027	0.000	0.000	1.439
Phenol	5.930	1.374	0.000	0.000
Di-n-butyl phthalate	0.084	0.000	0.000	0.000
Hydrogen fluoride and its water-soluble salts	0.000	14.880	0.000	0.000
Benzene	29.492	0.000	0.000	1.960
Boron and its compounds	0.000	35.939	0.000	0.000
Formaldehyde	3.912	15.444	0.000	3.102
Manganese and its compounds	0.000	13.619	0.000	0.000
Phthalic anhydride	0.000	0.000	0.000	26.514
3-Methylpyridine	0.000	0.000	0.000	17.248
Methyl 1,3-phenylene-diisocyanate	1.048	0.000	0.000	0.000
4,4-Methylenedianiline	0.000	0.000	0.000	3.840
Mercaptoacetic acid	0.000	0.000	0.000	0.001
Molybdenum and its compounds	0.000	0.000	0.000	0.001
Dioxins	0.0	0.0	0.0	0.0

For discharges into the soil, landfills are excluded.

Corporate Profile

Company Name

Mitsui Chemicals, Inc.

Head Office

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Tokyo 105-7117 Japan
Tel: +81-3-6253-2100 (Corporate Communications Division)
Fax: +81-3-6253-4245
www.mitsui-chem.co.jp/e/index.htm

Business Groups

Petrochemicals
Petrochemical feedstock, polyethylene, and polypropylene

Basic chemicals
Fiber intermediates, PET resin, phenols, and industrial chemicals

Functional chemicals and engineered materials
Functional fabricated products, electronics and information materials, agrochemicals, and fine chemicals

Functional Polymeric materials
Elastomers, performance polymers, specialty resins, and urethane

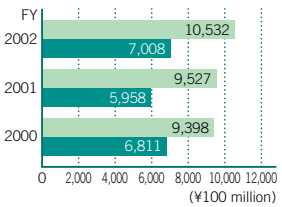
Paid-in Capital

¥103,226 million

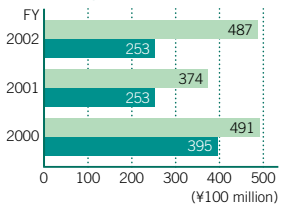
Employees (As of March 31, 2003)

12,660 (Consolidated)
4,916 (Non-consolidated)

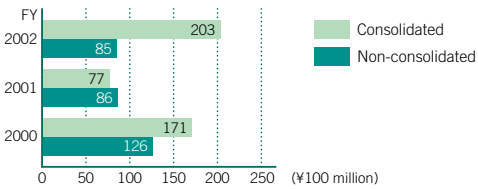
Net sales



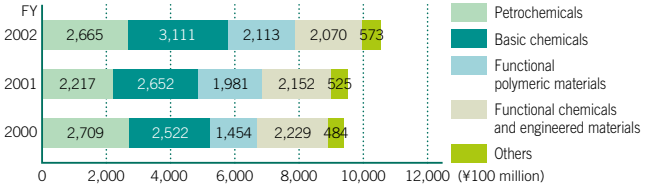
Ordinary income



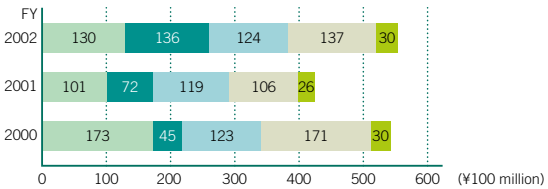
Net income



Segment information of net sales



Segment information of operating income



Domestic Manufacturing Sites

Ichihara Works (and Mobara Center), Nagoya Works, Osaka Works (and Yamaguchi SM Plant), Iwakuni-Ohtake Works, and Omuta Works

R&D Center

Sodegaura Center

Domestic Sales Offices

Head Office and three branches (Nagoya, Osaka, and Fukuoka)

Overseas Office

Beijing Office

Number of Shares

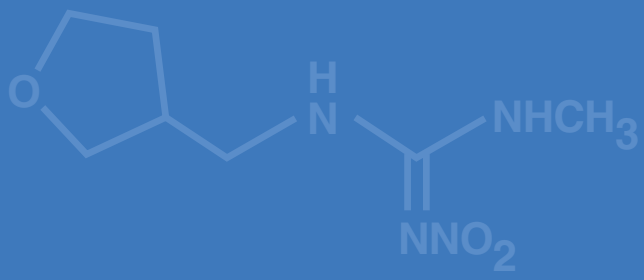
Total number of shares issued: 789,156,353

Major Group Companies

● 79 Consolidated subsidiaries, including:
Mitsui Takeda Chemicals, Inc.; Osaka Petrochemical Industries, Ltd.; Shimonoseki Mitsui Chemicals, Inc.; Tohcello Co., Ltd.; Hokkaido Mitsui Chemicals, Inc.; Miike Dyes Works, Ltd.; Mitsui Kagaku Platech Co., Ltd.; Mitsui Chemicals Engineering Co., Ltd.; Mitsui Chemical Analysis and Consulting Service Inc.
Mitsui Chemicals America, Inc.; Mitsui Phenol Singapore Pte. Ltd.; Mitsui Elastomers Singapore Pte. Ltd.; Mitsui Bisphenol Singapore Pte. Ltd.; Mitsui Chemicals Europe holding B.V.; Siam Mitsui PTA Co., Ltd.

● 97 companies in which the Group holds equity
Toyo Engineering Corporation; Du Pont-Mitsui Polychemicals Co., Ltd.; Du Pont-Mitsui Fluorochemicals Co., Ltd.; Yamamoto Chemicals, Inc.; Japan Polystyrene Inc.; Honshu Chemical Industry, Ltd.

Domestic Sites



MITSUI CHEMICALS, INC.

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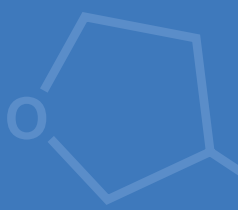
URL: www.mitsui-chem.co.jp/e/index.htm



About the structural formula on the front cover (Starkle™)

The structural formula on the front cover is of dinotefuran, which is the active ingredient of Starkle™, a new insecticide developed by Mitsui Chemicals.

Starkle™ works very well against a variety of harmful insects. With minimal impact on the ecological system and the environment, this halogen-free insecticide is very safe.

(See page 33 for related information)

FSC
30% Minimum
SA-coc-1210
At least 30% of the fibre used in the manufacturing process of this product comes from well-managed forest independently certified according to the rules of the Forest Stewardship Council.
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