Our commitment to the environment, Health, Safty, and Quality

MITSUI CHEMICALS, INC.

Message from the President

Mitsui Chemicals, Inc. is pursuing its business activities based on a strong commitment to contributing extensively to society by providing customers with high-quality products and services, through innovations and creations of materials, while keeping in harmony with the global environment.

We are actively engaged in various environment, safety and quality initiatives under our newly established "Basic Policy Regarding the Environment, Safety and Quality." We are doing so, in compliance with the spirit of Responsible Care, with the recognition that securing of environmental integrity and safety is the very foundation of corporate management.

What is required of us today does not simply consist of reducing environmental loading associated with production activities, or working on ways to assure safety. We must also develop products and technologies for serving the environment and assuring safety. Too, we must make sure of safety throughout the process of using and disposing of products.

It is my great pleasure to present to you in this brochure a summary of Mitsui Chemicals' activities and wish to request your kindest understanding for our commitment to Responsible Care through the initiatives we are taking. At the same time, we would highly appreciate hearing from you any comments or criticisms to the material, so that they may serve as a valuable reference for our future activities.

January 2000

Hiroyuki Nakanishi
President

Corporate Vision

Mitsui Chemicals' Corporate Vision

● **Corporate Mission**

to contribute extensively to society
by providing high-quality products and services to customers
through innovation and the creation of materials
keeping in harmony with the global environment

◆ Promoting Human Welfare ◆ Contributing to Shareholders ◆ Increasing Customer Satisfaction
◆ Contributing to Local Communities ◆ Promoting the Happiness and Self-Fulfillment of Employees

Focus Strategy

● **Target Corporate Domain**
A diversified chemical company with a strong competitive position in the global market

Global Strategy

Group Strategy

Innovation :
- **Corporate culture**
- **Product and operations**
- **Management systems and ways of doing business**

Basic Policy

Mitsui Chemicals recognizes that environmental conservation and securing safety are the fundamentals of corporate management as well as customers, and improves environmental conservation, safety and quality. We strictly observe relevant regulations and ordinances, and are committed to voluntary management in connection with Responsible Care activities.

1. Environment

1) Contribute to environmental protection by developing new products and technologies
2) Assess and reduce the environmental impact of products through their entire life cycle from product research and development to disposal
   - Reducing air and wastewater pollutants
   - Energy conservation (countering to global warming)
   - Reducing industrial waste
   - Voluntary management of harmful air pollutants

2. Health and Safety

1) Give priority to securing safety and aim for accident-and injury-free operations
2) Secure safety in handling chemical substances in order to prevent injury or harm to people connected with our activities, such as employees and others related to plants and distribution

3. Quality

Supply high-quality products and services which earn the trust and satisfaction of customers and which customers feel assured of safety in using for intended applications.

4. Promotion of Self-Management

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

October 1, 1997

What is About Responsible CareÅiRCÅj?

Responsible Care comprises activities and improvements undertaken by the chemical industry by which manufacturers and handlers of chemical substances - under the principle of own decision and individual responsibility - preserve the environment and the health of individuals in society, prevent damage to facilities, ensure the health and safety of employees, and protect the health of all persons involved with chemical substances, including customers, at all stages of a substance's life cycle, from initial research and development through production, distribution, use, final consumption, and disposal.

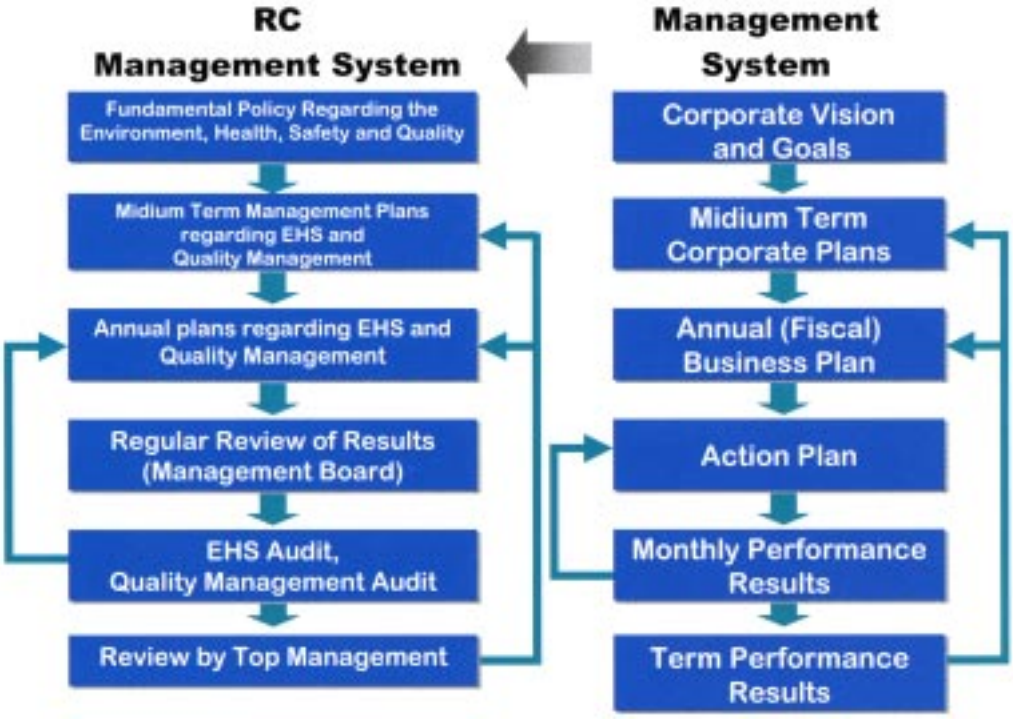
Responsible Care is a global initiative that has been adopted by the world's leading chemical companies.

Responsible care structure

- RC is a important and integral part of Mitsui Chemicals' management.
- We are promoting RC through the implementation of environmental, health, and safety (EHS), and quality management.

Organization and Responsibility

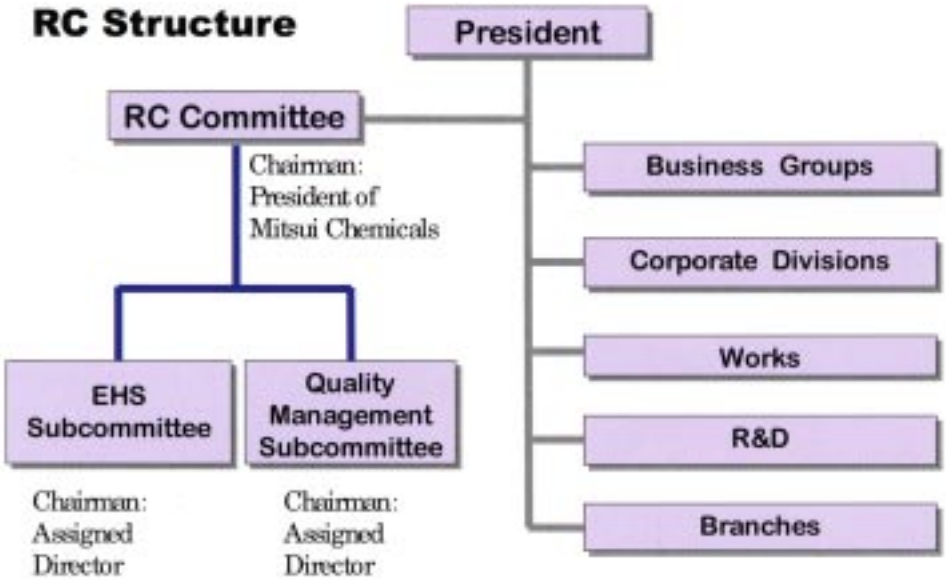
- The RC Committee has been established with the president as chairman, to evaluate results of RC activities and reports of RC audits from the preceding fiscal year and plan RC activities for the new fiscal year.
- The RC Committee comprises the Environment, Health and Safety Subcommittee and the Quality Management Subcommittee.
- A member of the Board of Directors is appointed as Chief RC Officer responsible for our RC initiatives.
- Heads of operational divisions, works, and branches are charged with promoting RC activities as RC leaders in their respective areas of control.



RC Audits

◆ **EHS Audits**
Chief RC Officer or a person appointed by Chief RC Officer carries out the audits at least once a year on works and laboratories by.

◆ **Quality Management Audits**
Chief RC Officer or a person appointed by Chief RC Officer carries out annual audits on business divisions and works.



Transparency in RC Activities

◆ Regarding EHS, we will promote compliance with ISO 14001, core environmental management system certification standards, and undergo inspection by outside auditors.
Further, we will publish regular reports on its activities.

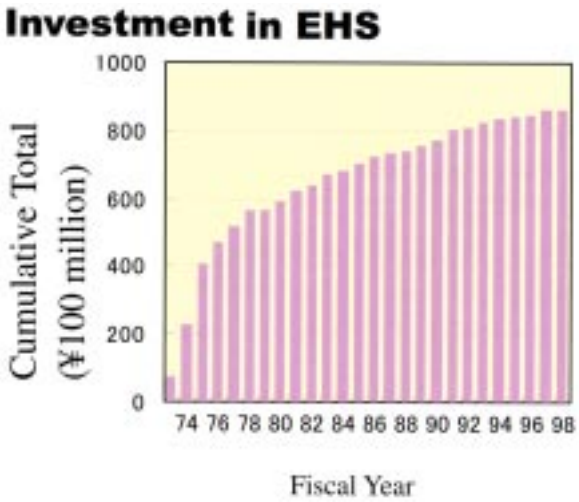
◆ Regarding quality, we will promote compliance with ISO 9000 series, core quality management system certification guidelines, and undergo inspection by outside auditors. Most of our works have already been certified as being compliant.

Investment in Support of RC Activities

◆ We have established an adequate budgets for supporting the execution of RC plans, as it is critical for the implementation of RC.

◆ We have invested in environmental measures, as well as measures to ensure the safety of facilities.

◆ Cumulative investment in EHS is shown in this report.



The Environment :

Voluntary Reduction of Chemical Substance Emissions

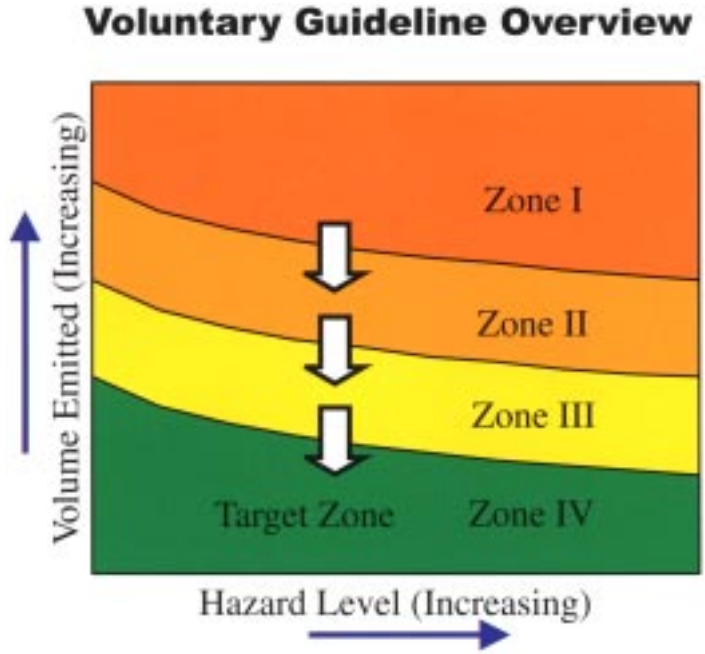
- The effect of chemical substances on persons and the environment are determined according to the degree of hazard and the level of exposure.
- Discharge into waters of Chemical Substances is being reduced by measures such as active sludge treatment.
- Mitsui Chemicals curbs emission of chemical substances into the atmosphere based on its our voluntary guidelines for such emissions.

Voluntary Guidelines

- Emissions of chemical substances into to the atmosphere are divided into four zones according to their hazard and emission levels, and are being reduced accordingly.

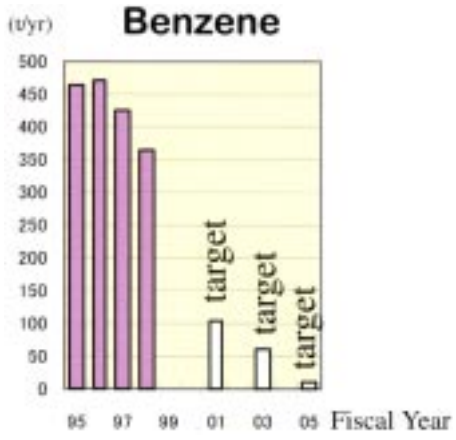
Red Zone	(I):	Swift reductions are necessary. Emissions to be reduced to Orange Zone (II) levels by fiscal 2001.
Orange Zone	(II):	To be reduced in the second phase of reductions. Emissions to be reduced to Yellow Zone (III) levels by fiscal 2003.
Yellow Zone	(III):	To be reduced in the third phase of reductions. Emissions to be reduced to
Green Zone	(IV):	levels by fiscal 2005.

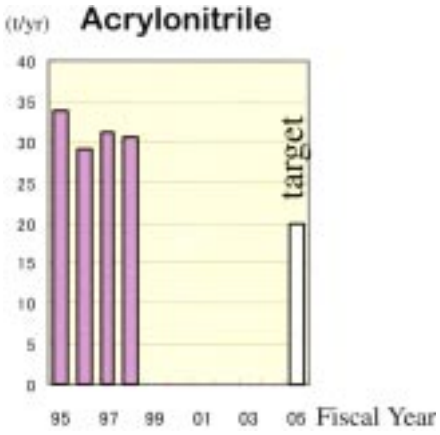
- Furthermore, reductions in emissions of benzene and other harmful air pollutants mandated in the Air Pollution Control Law are implemented in accordance with this framework. We are in complete compliance with the legal requirements.
- Details of the reduction of chemical substance emissions are on the facing page.
  Emissions volumes are as set forth by the Japan Chemical Industry Association in Pollutant Release and Transfer Register Guidelines.

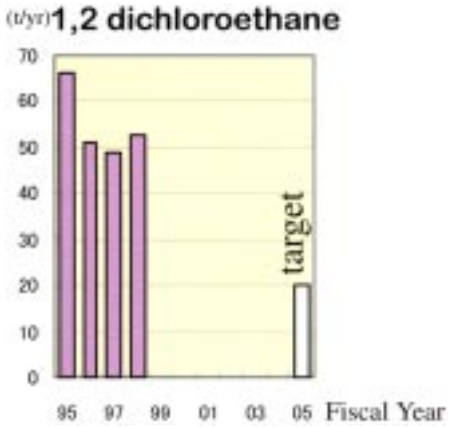


Examples of Reductions of Air Pollutant Emissions under Voluntary Guidelines

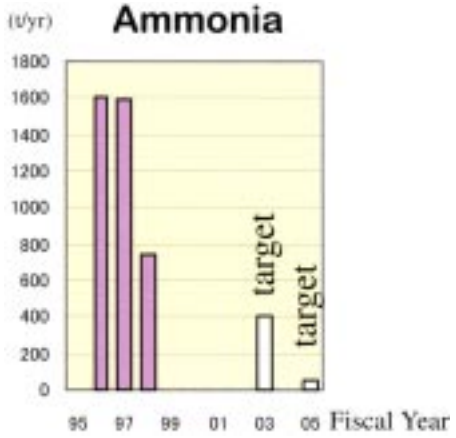
Harmful Air Pollutant Emissions

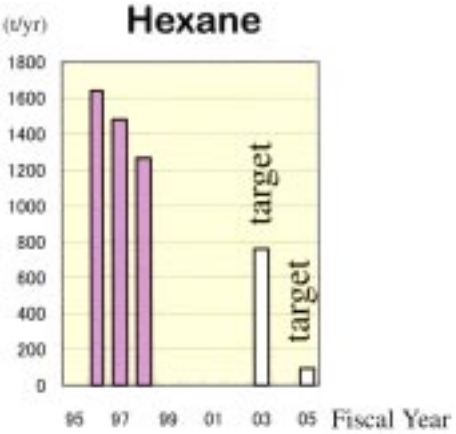


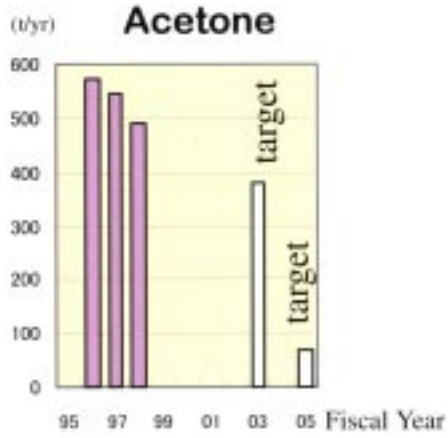




Examples of Reductions of Other Substance Emissions







Pollutant Release and Transfer Register (PRTR) Efforts

- The chemical industry voluntarily began PRTR activities in fiscal 1992.
- We participate in these activities, reports information on emissions into the environment to the Japan Chemical Industry Association, prioritizes chemical substances, and develop and implement reduction plans.
- Representative examples of our initiatives for reducing chemical substance emissions are on the facing page.

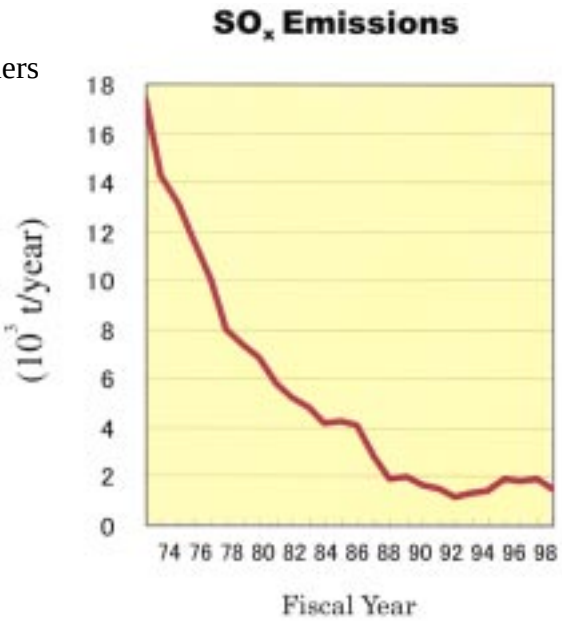
The Environment :

Bringing Back Clear Skies and Blue Sea---Respnse to Regulations

- Mitsui Chemicals has been implementing measures regarding the release of such pollutants as SOx, NOx, and COD for more than 20 years.
- As a result, emissions have decreased significantly through the 70s and 80s, as shown on the facing page.
- We will continue to keep these levels.
- We have adopted a telecommunication system at our chemical complexes to report measurements of SOx, NOx, etc. to local government offices.

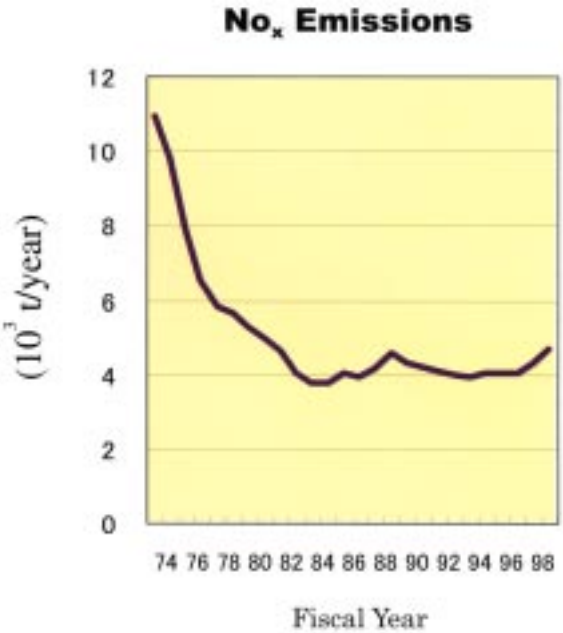
SOx Counter Measures

- Switchover to fuels with low sulfur content
- Installation of desulfurization equipment for large boilers



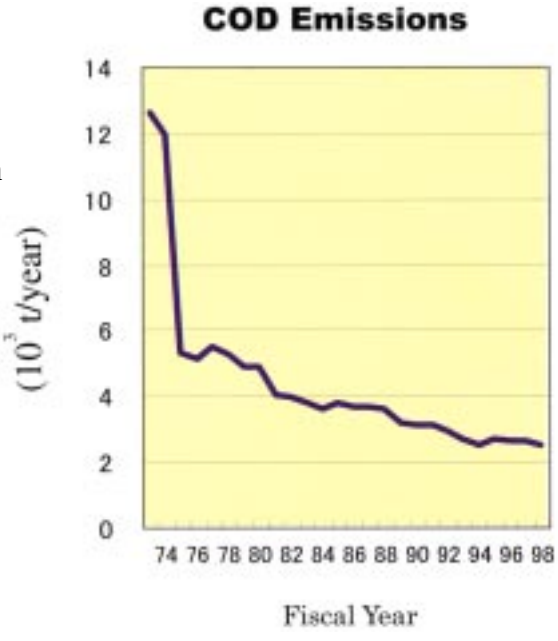
NOx Counter Measures

- Installation of denitrification equipment
- Improvements in combustion technology (two-stage combustion process, low-NO_x burners)



COD Counter Measures

- Curbing of pollutant emission at the sources
- Decomposition by bio-oxidation at activated sludge facilities
- Decomposition of pollutants by wet oxidation
- Incineration of pollutants at liquid effluent incineration facilities



Accident Review

- Early in the morning of September 24, 1999, phenol leaked from a pipe joint at a storage tank at Ichihara Works. A portion of the spill flowed into the sea.
- We will continue with its best efforts to further strengthen our accident prevention measures.

The Environment :

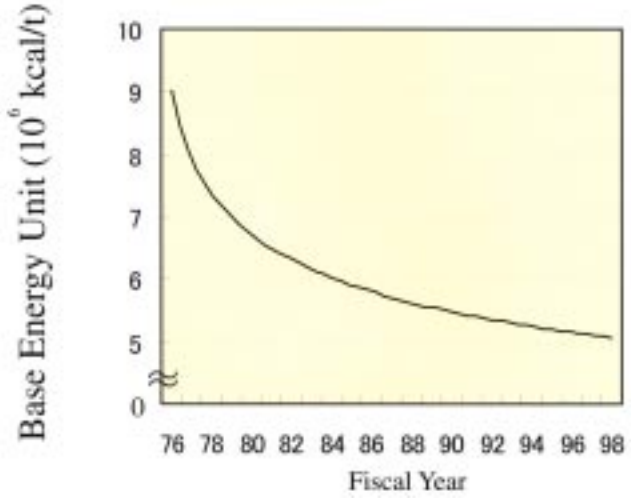
Responce to Global Warming Issues

- Mitsui Chemicals has made implementation of energy-conservation measures as a critical component of its production technology improvements.
- Energy consumption is set according to energy consumed per item produced (basic energy unit) and the production volume. We are working to reduce such basic energy units.
- Since 1990, basic energy units have been reduced an average of 1% per year.
- We annually report data regarding basic energy units to the Ministry of International Trade and Industry.

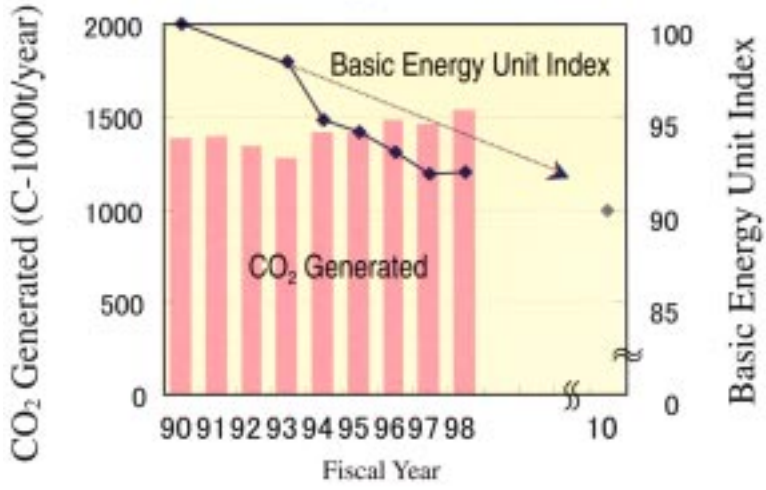
Energy Conservation Targets

- Using basic energy units as calculated in 1990 as a basis, we aim to reduce basic energy units by 10% by 2010.

Sample of Energy Conservation (Ethylene plant)



CO_2 Generated (Including Electricity Purchased) and Basic Energy Unit Index



Majour Measures at Works

Ichihara Works

Cogeneration system has been in use for 10 years.
Gas phase polypropylene and polyethylene polymerization processes have been introduced.
Ichihara Works : One of Japan's leading, highly competitive petrochemical works.
We produce ethylene as feed-stock for high-density polyethylene, low-density polyethylene, propylene, phenol, Ethylene Propylene Diene Terpolymer (EPDM), other chemical compounds, derivatives and so on.

Osaka Works

Ethylene is supplied by our subsidiary Osaka Petrochemical Industries, Ltd.
Cogeneration system was introduced for a naphtha cracking furnace.
Osaka Works : An industrial complex of approximately 60 affiliated chemical plants producing - in addition to ethylene and ethylene derivatives and other chemical products, ammonia, urea, electric/electronic parts, and gas.

Iwakuni-Ohtake Works

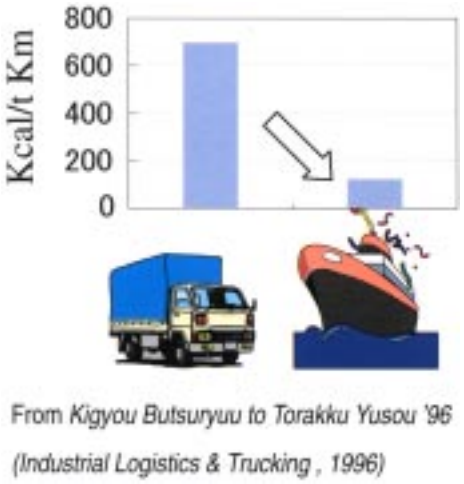
Production plants for purified terepthalic acid and polyethylene-terephtalate (PET) resins use world-class energy conservation technologies.
Iwakuni-Ohtake Works : Produces purified terepthalic acid (a raw material for polyester fiber and film and PET resins), special polyolefins, gas pipes, and other specialty products.

Omuta Works

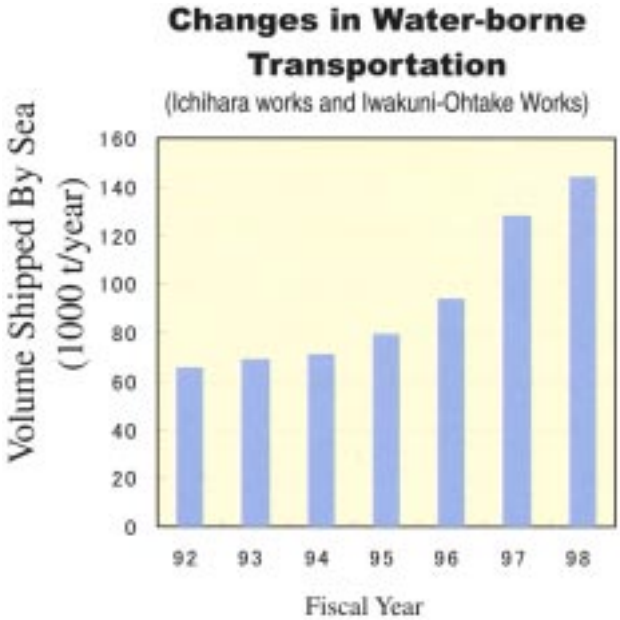
Developed a process for reclaiming chlorine from waste hydrochloric acid. The new process allows considerable energy savings when compared with chlorine production by electrolysis.
Omuta Works : Omuta Works has been in operation for approximately 80 years.
It is the production site for such specialty products as base materials for urethane products, dyestuffs, pharmaceuticals intermediates, monomers for optical plastic lenses, and various amino acids and polyimide resins.

Energy Conservation during Distribution

- With the cooperation of major customers, we are reducing energy consumption by replacing tracking with water-borne transportation.
- The distribution of polymer products by sea has doubled in the past five years.



From *Kigyou Butsuryuu to Torakku Yusou '96*
(Industrial Logistics & Trucking , 1996)

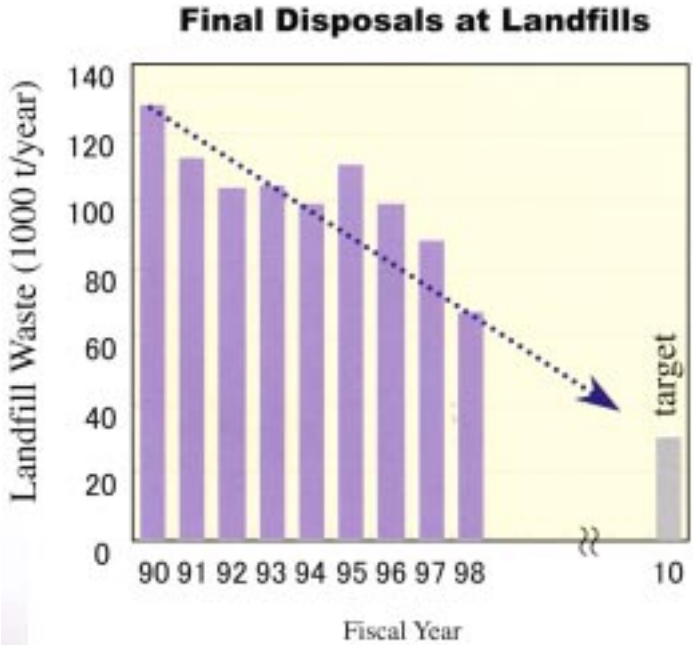


The Environment :
Recycling and Reducing Waste Products

◆ In order to reduce the volume of industrial waste products, Mitsui Chemicals is striving to curb the generation of wastes from production process and by recycling by-products.

Waste Product Reduction Targets

◆ Using the amount of waste products disposed of in landfills in 1990 as a basis, we aim to have reduced by 76% the volume of disposal by landfills by 2010.



Efforts to Curb the Release of Waste Products

◆ Organic Sludge (Example)
- Excess Sludge of waste water treatment plant is completely decomposed with ozone at Ichihara Works.

◆ Inorganic Sludge (Example)
- The Omuta Works has improved the manufacturing processes, reducing the usage of sulfuric acid. This has led to a reduction in the amount of inorganic sludge that is produced as a result of the neutralization treatment of sulfuric acid with slacked lime.

◆ Off-spec Resins
- Off-specs are products which deviate slightly from their specifications. Rather than disposing of off-specs, we use them in lower-grade applications.

Ozone Treatment Equipment at Ichikawa Works

Recycling Efforts

Reusing By-Products as Raw Materials

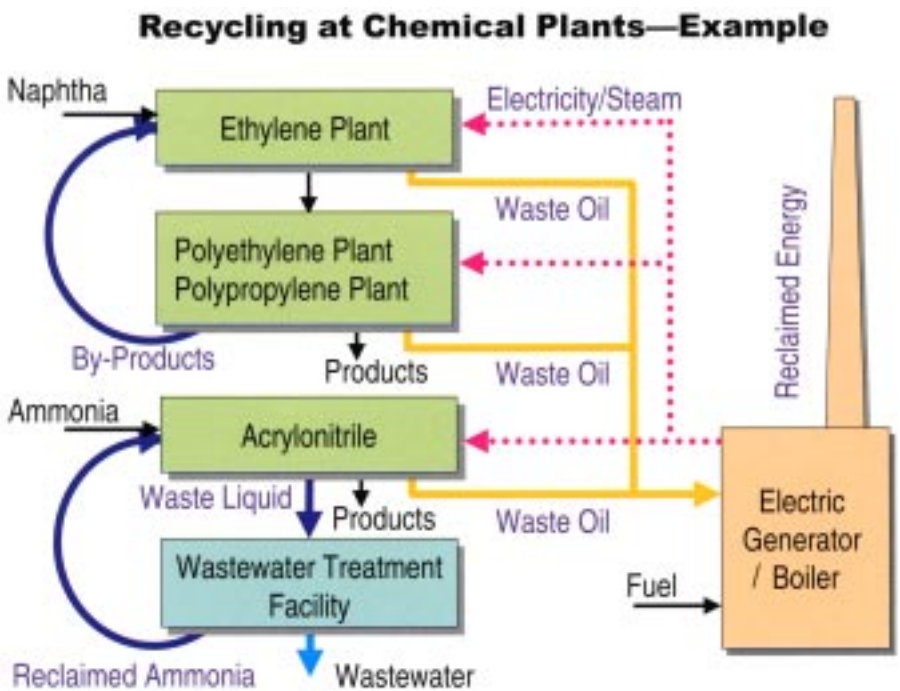
- By-products generated at polyethylene and polypropylene plants are returned to ethylene plants for reuse as raw materials.

Reusing Materials Reclaimed in Waste Treatment

- Ammonia is recovered from ammonium sulfate discharged from acrylonitrile plants, then reused as a raw material for acrylonitrile production.

Recovering Energy

- Waste oil is burned as fuel, effectively reclaiming energy.



The Environment :

Recycling Used Prodects and Developing Products with Lower Enviironmental Impact

- Mitsui Chemicals is devoting development of products with lower environmental impact.
- Their Improving the properties of polymers allows the reuse of products, and creating thinner walled bottles and thinner-gauze films helps reduce the amount of waste products generated.
- We are working to establish recycling technologies for used plastics.

Developing Products with Lower Environmental Impact

- We have developed biodegradable plastics (LACEA™) using lastic acid from plants.

Biodegradable Polymer LACEA™

◆A high-performance low-density polyethylene using metallocene catalysts (Evolue™) allows production of thinner-gauze products with superior strength, thereby contributing to resources conservation.

Evolue

◆Synthetic pulp made of plastics (SWP®) is used as an asbestos-substitute roof tile.

Asbestos-substitute Roof Tiles

Recycling

◆PET Bottles

- In addition to cooperating in the development of recycling technologies as a member of the Japan PET Bottle Association, we are cooperating to develop uses for fibers, sheets, bottles, bonding tape, molded products, and other recycled products.

◆Polyurethane

- Used polyurethane is ground up and mixed with a polyurethane glue in the production of water permeable tennis courts and similar surfaces.
- Used polyurethane is ground up and mixed with a polyurethane blending agent for use in materials for athletic fields, flooring, and paving.

◆PP Bumpers

- We, in partnership with automakers, are developing technologies to recycle used plastic car bumpers in the production of new bumpers.

◆Other Plastics

- We participate in the development of new recycling technologies for plastics as a member of the Plastic Waste Management Institute Japan.

Safety of Chemical Products

- Chemical substances are an indispensable part of people's lives. However, when handled improperly they also have the potential to damage people's health and the environment
- The majority of Mitsui Chemicals' products are raw materials that are processed by its customers and made into end user products.
- In order to promote safe use of our products by our customers, we prepare Material Safety Data Sheets (MSDS) and provide information regarding the safe handling of our products.
- As a manufacturer of raw materials, we confirm the applications of our products in their final forms and conduct safety evaluations.

Product Safety Evaluations

- Safety review committees at our works determine the safe handling of a chemical substance with regard to people and the environment prior to our actual handling of that substance.
- To ensure safe use of products by our customers, we evaluate and verify product safety through meetings.

Main Assessment Functions of the Product Safety Committee

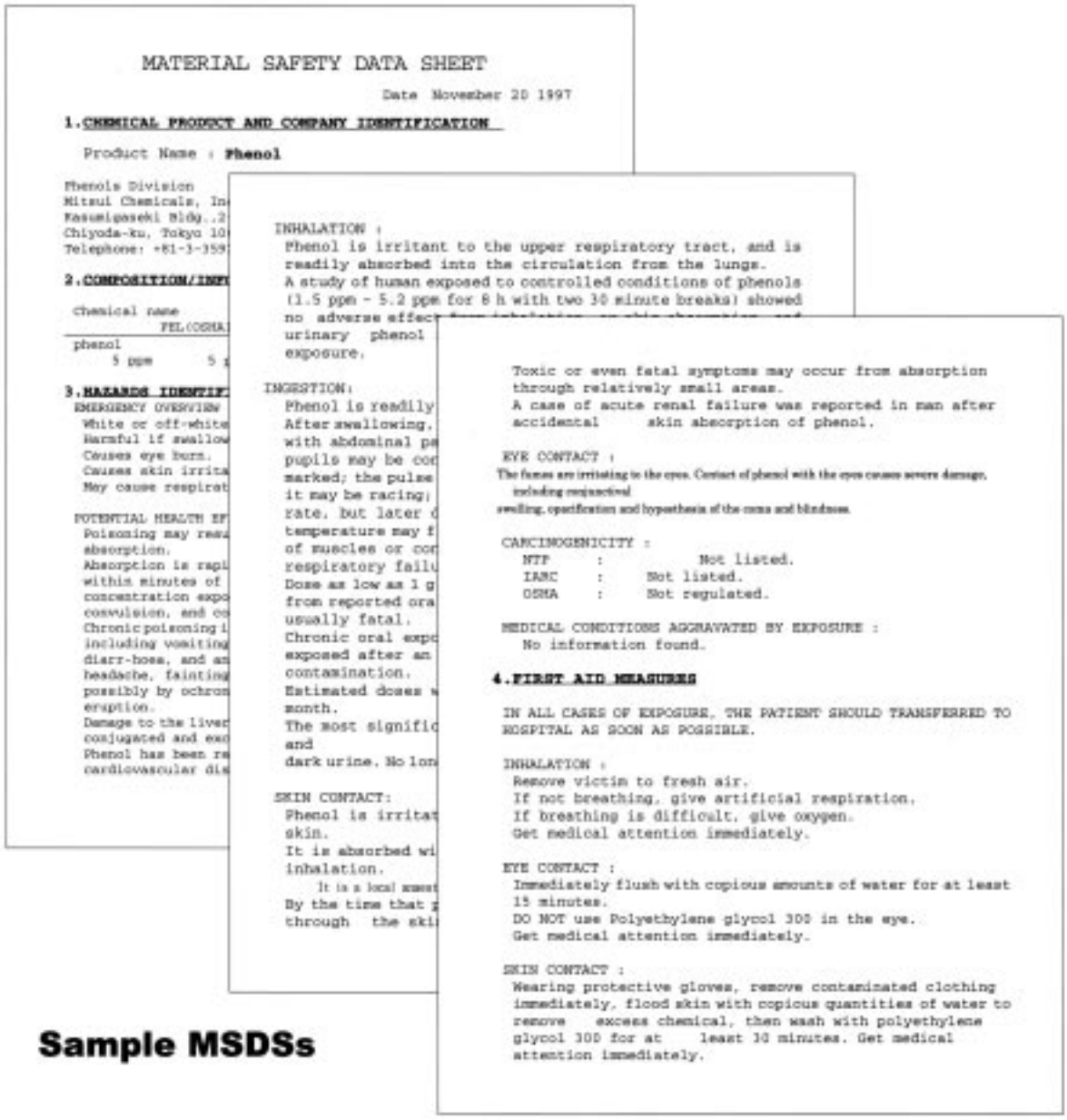
- Verification of intended use
- Ensuring that use involves no danger
- Measures devised in response to similar accidents
- Presence of important notices for customers regarding handling and use

● Measures regarding Endocrine Disruptors

Five Japanese manufacturers including Mitsui Chemicals have formed the Bisphenol-A Safety Committee to conduct research into the safety of bisphenol-A(BPA).
Furthermore, this group has formed a global BPA industry group with similar chemical industry research groups in Europe and the United States.
The group is developing a new scientific hypothesis regarding the endocrine disruptors issue and is conducting research into the safety of BPA in people and the ecology.
The results were reported at Kyoto International Symposium on Environmental Endocrine Disruptors '98.

Safe Handling of Products

◆ We provide MSDSs to our customers for appropriate handling of our products.



MATERIAL SAFETY DATA SHEET

Date November 20 1997

1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : **Phenol**

Phenols Division
Mitsui Chemicals, In
Kasumigaseki Bldg..2
Chiyoda-ku, Tokyo 10
Telephone: +81-3-359

2.COMPOSITION/INF

Chemical name
FEL(OSHA

phenol
5 ppm 5

3.HAZARDS IDENTIF

EMERGENCY OVERVIEW
White or off-white
Harmful if swallow
Causes eye burn.
Causes skin irrita
May cause respirat

POTENTIAL HEALTH EF
Poisoning may resu
absorption.
Absorption is rapi
within minutes of
concentration expo
convulsion, and co
Chronic poisoning i
including vomiting
diarrhoea, and an
headache, fainting
possibly by ochron
erspion.
Damage to the liver
conjugated and exc
Phenol has been re
cardiovascular dis

INHALATION :
Phenol is irritant to the upper respiratory tract, and is readily absorbed into the circulation from the lungs.
A study of human exposed to controlled conditions of phenols (1.5 ppm - 5.2 ppm for 8 h with two 30 minute breaks) showed no adverse effect
urinary phenol
exposure.

INGESTION:
Phenol is readily
After swallowing,
with abdominal pa
pupils may be con
marked; the pulse
it may be racing;
rate, but later c
temperature may f
of muscles or con
respiratory failu
Dose as low as 1 g
from reported ora
usually fatal.
Chronic oral expo
exposed after an
contamination.
Estimated doses w
month.
The most signific
and
dark urine. No lon

SKIN CONTACT:
Phenol is irritat
skin.
It is absorbed wi
inhalation.
It is a local anest
By the time that p
through the ski

Toxic or even fatal symptoms may occur from absorption through relatively small areas.
A case of acute renal failure was reported in man after accidental skin absorption of phenol.

EYE CONTACT :
The fumes are irritating to the eyes. Contact of phenol with the eyes causes severe damage, including conjunctival swelling, opacification and hypothesia of the cornea and blindness.

CARCINOGENICITY :
NTP : Not listed.
IARC : Not listed.
OSHA : Not regulated.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE :
No information found.

4.FIRST AID MEASURES

IN ALL CASES OF EXPOSURE, THE PATIENT SHOULD TRANSFERRED TO HOSPITAL AS SOON AS POSSIBLE.

INHALATION :
Remove victim to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical attention immediately.

EYE CONTACT :
Immediately flush with copious amounts of water for at least 15 minutes.
DO NOT use Polyethylene glycol 300 in the eye.
Get medical attention immediately.

SKIN CONTACT :
Wearing protective gloves, remove contaminated clothing immediately, flood skin with copious quantities of water to remove excess chemical, then wash with polyethylene glycol 300 for at least 30 minutes. Get medical attention immediately.

Sample MSDSs

◆ We encourage the posting of warning/indication labels on containers, issuring warnings regarding the handling of the contents.

◆ We have prepared Yellow Cards - which list emergency response measures, reports, contact information, and other details for each product - for use in the unlikely event of an accident during distribution. Yellow Cards are posted on trucks and other distribution vehicles.

Safety : Safety in Production Activities

- Mitsui Chemicals' corporate mission gives highest priority to safety, and we work toward accident- and injury-free operations.
- With the president at the fore with his New Year's Address and Safety Week Message, the critical importance of environmental preservation is impressed upon all employees.
- EHS audits each Works more than once, making on-site inspections and raising the level of safety awareness in the field.
- An extensive set up for local disaster prevention has been established. Heavy Duty Foam Truck, Water Tower Truck, Foam Liquid Carrier Truck and other necessary equipment are always standing by. Additionally, disaster prevention drills are also conducted in cooperation with neighboring industrial sites.

Prior Assessment of Facilities and Process Safety

- When new facilities are built, additions are made to existing facilities, facilities are revamped, and when changes to processes are made, a technology inspection committee evaluates the safety of materials handled at the facilities, the safety of the facilities themselves, and the safety of the processes. The committee then verifies the overall safety of facilities and processes.

Main Assessment Items of the Technology Evaluation Committee

- Hazard and countermeasures handled.
- Hazard and countermeasures for new chemical substances.
- Hazard for processes and facilities.
- Facilities-related measures for reducing hazard
- Process control-and systems-related measures for reducing hazard

Safety Education and Training

- Technical training for young plant operators
- Training using simulators
- On-the-job training
- Fire prevention and fire-fighting drills assuming emergency situations (Firefighters from local communities also participate in drills.)
  Emergency communication drills (carried out at least once a year at all sites)

Plant Simulation Drills

Fire-Fighting Drills

Examples of Safety Activities

- Directors at works visit various worksites for safety lectures, raising the general awareness regarding safety issues.
- We stress adequate potential hazards, as well as preparation for any situation that may arise.
- We learn from past incidents to avoid future repetition.
- To enhance safety, We also provide safety instructions to Sub contractors.

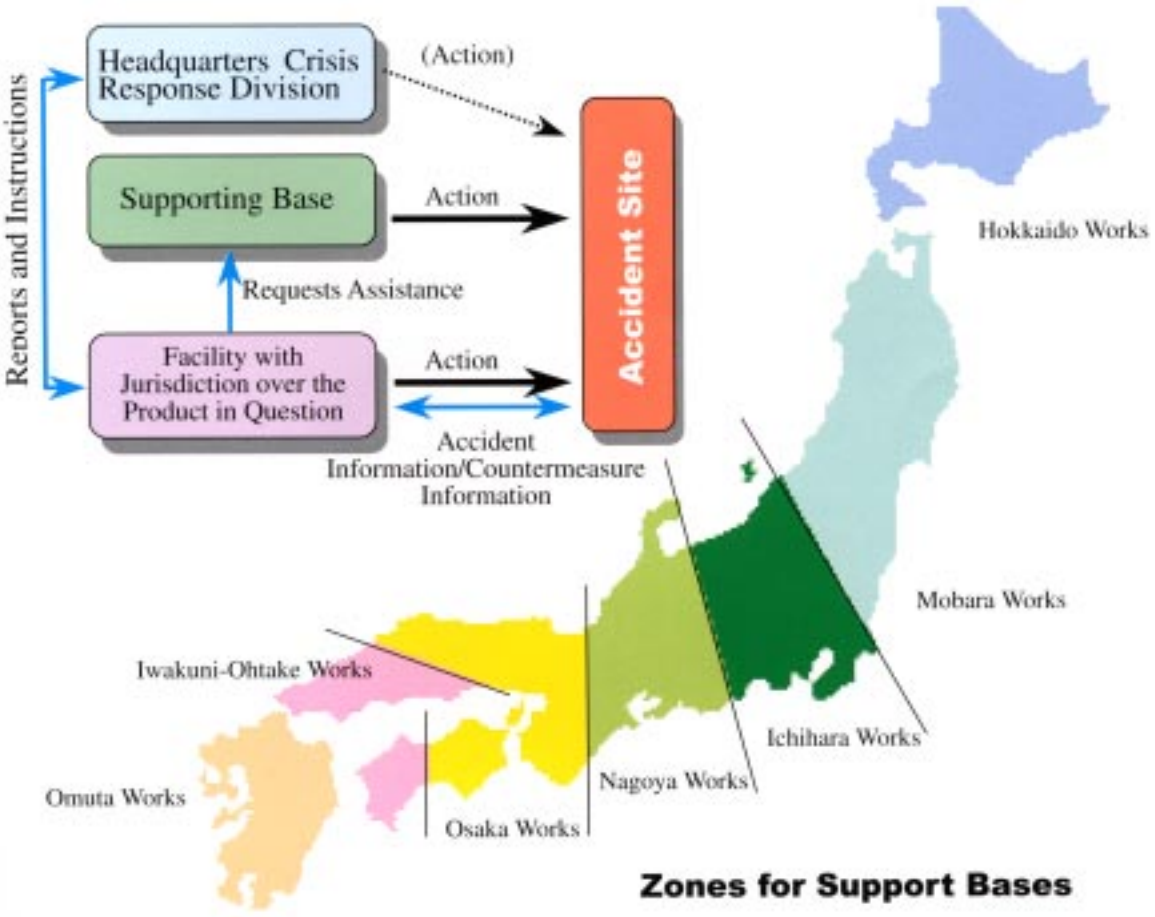
The Employee Accident Frequency Rate

Safety : Safety during Distribution

- Regulations have been set regarding safety during distribution. Yellow Cards and MSDSs have been prepared and are well understood by those involved with distribution.
- Mitsui Chemicals continues to operate systems to minimize the effects of accidents and other mishaps that may occur during product distribution.

Emergency Response

- An emergency response network has been established in the event of an accident or similar mishap during product distribution.
- The network is divided into seven zones. In the event of an accident, employees at works in the zone where the accident occurred take action.
- Furthermore, fire-fighting equipment and other emergency equipment is permanently on call at affiliated firms and distribution centers in each region and can be called upon by employees coordinating safety efforts to ensure a swift response to any emergency situation.



Yellow Cards

- Information regarding the properties of chemical substances in transit, safety reports, emergency response measures, and emergency contact information are included on Yellow Cards.
- In preparation for the event of an accident during the transport of chemical substances, the cards are carried on transport vehicles to help drivers, police, and firefighters on the scene respond appropriately to the situation.

Health

- Mitsui Chemicals holds the philosophy that the health of its employees is directly linked with the soundness of the Company; therefore, We promote occupational health management through stressing the importance of
  - • support for employees in their individual health maintenance activities,
  - • the prevention of occupational hazards and diseases, and
  - • the establishment of an appropriate working environment.
- Industrial physicians, health management staff, public health nurses and other professionals are stationed at all facilities. Industrial health activities are developed through close cooperation among staff.

Hygiene and Health Enhancement

- We are building an agreeable workplace through the comprehensive improvement of working conditions and practices, the working environment, and the establishment of smoke-free areas.
- We support better health by sponsoring health checkups and health-care supervision, promoting mental health, developing health improvement activities, and organizing recreational events.
- Implementing Industrial Hygiene and Health Education.

Health checkups

Dialogue with the Piblic

- Corporate Vision calls for contributions to local communities, and as an active member of the local community Mitsui Chemicals is working to enhance the welfare of regions in which it operates.
- We hope to use this report to further develop communication with the public.

Communication with the Local Community

- Publication of *Chigusa* by the Ichihara Works and *Ozegawa* by the Iwakuni-Ohtake Works, p mublic relations magazines for the local community.
- Participation in local RC explanatory meetings.
  - For a broader understanding of RC, the Japan Responsible Care Council holds local explanatory meetings at petrochemical complexes throughout Japan.
  - We take the lead role in meetings reporting on RC activities in the Chiba, Osaka, and Yamaguchi regions.
- Other activities :
  - Arranging tours of facilities for students, residents' associations, and other organizations.
  - Sending speakers to participate in lectures by local organizations.
  - Introducing a system for monitoring the local environment.

Public Relations Magagine

Volunteers

- Employees at all facilities participate in beautification efforts and other activities, such as neighborhood clean-up campaigns sponsored by local residents' associations.

Beautification Efforts around Company Works

A Neighborhood Clean-Up Campaign

International Operations

- Mitsui Chemicals aggressively responds to EHS issues in its overseas operations.

EHS Management at Overseas Facilities

- The preservation of EHS is fundamental to the business of our affiliates engaged in production activities overseas.

Transfer of Technology

- We observe local regulations and actively seeks to transfer to host countries both existing domestic technology and newly developed technology that may prove useful in preserving EHS.

International Trade in Chemical Products

- To ensure that exports of our products do not run counter to international regulations, We have established an in-house procedure to screen and approve exports and to confirm whether no items for export have been designated international controlled substances.
- For a product found to be classified as an international controlled substance, We comply with the Foreign Exchange and Foreign Trade Control Law.