

# The Mitsui Chemicals Group "CSR Report 2013"

## Contents

Top Page.....	1
Message from the President.....	2
UN Global Compact.....	4
Safety Initiatives.....	6
Restoration and Safety Initiatives.....	9
Fundamental Safety Committee.....	11
Initiatives at the Ichihara Works.....	13
Safety Day.....	15
Special Feature.....	16
Special Feature 1 : Tahara Solar-Wind™ Joint Project.....	17
Special Feature 2 : Chemical Management.....	20
Tackling Social and Environmental Issues through the Mitsui Chemicals Group's Business and Main Products ....	23
CSR Management.....	28
CSR in the Mitsui Chemicals Group.....	29
The aims of CSR.....	29
Framework for the creation of a "good and trustworthy company" ..	31
The Mitsui Chemicals Group's Core Values.....	33
Identifying Key CSR Challenges.....	34
Mitsui Chemicals' commitment to ISO 26000.....	35
Management Framework.....	37
Goals and Results.....	37
Corporate Governance.....	38
Risk Management Framework.....	40
Compliance Training.....	42
Responsible Care.....	43
Mitsui Chemicals' Responsible Care Policy.....	45
Responsible Care Policy.....	45
RC Promotion System.....	46
Goals and Results.....	46
RC initiatives.....	47
Environmental Safety, Occupational Health, and Quality Audits ....	49

Occupational Health and Safety .....	54
Goals and Results .....	54
Creating Safe and Secure Workplaces .....	55
Employee Health .....	57
Process Safety and Disaster Prevention .....	58
Goals and Results .....	58
Process safety and disaster prevention training .....	60
Safety Assessments .....	62
Process Safety and Disaster Prevention Drills .....	63
Investments in health, safety and disaster prevention .....	64
Environmental Protection .....	65
Goals and Results .....	65
Preventing Global Warming .....	66
Reducing Industrial Waste .....	68
Substances Subject to the PRTR Act .....	70
PRTR data for individual sites .....	71
Preserving air quality .....	72
Preserving water quality .....	74
Biodiversity .....	76
Environmental Accounting .....	78
INPUT ⇒ OUTPUT .....	81
INPUT ⇒ OUTPUT Data for Individual Sites .....	84
Environmental Impact Assessment .....	87
Handling Environmental Complaints .....	89
Chemical Management .....	90
Goals and Results .....	90
Ensuring the Safety of Chemicals and Products .....	91
Risk Assessments for Mitsui Chemicals Products .....	93
Quality .....	94
Goals and Results .....	94
Quality Improvement Initiatives .....	95
Logistics .....	97
Goals and Results .....	97
Transporting Products Safely .....	98
<b>Communication with Society .....</b>	<b>100</b>
Respect for Human Rights .....	102

Basic philosophy on human rights .....	102
Working with our Customers .....	103
Marketing “Meister” system .....	103
Working with our suppliers .....	104
Goals and Results .....	104
Purchasing Policy .....	105
CSR Procurement .....	107
Working with our Shareholders .....	110
Goals and Results .....	110
Disclosure of Information to Shareholders .....	111
Working with our Employees .....	113
Goals and Results .....	113
Promoting and utilizing human resources .....	114
Creating an Employee-Friendly Working Environment .....	117
Employee Health .....	120
Working with Industry and Academia .....	125
Goals and Results .....	125
Promoting Joint Research Projects .....	126
Working with Local Communities .....	127
Goals and Results .....	127
Dialog with Local Communities .....	128
Exchange with Local Communities .....	130
Public Recognition .....	133
Social contribution activities .....	135
Goals and Results .....	135
Nurturing Future Generations .....	136
Disaster Relief .....	142
Support for Employees' Social Contribution Activities .....	143
Support for Intellectual Property Education .....	145
Disaster Recovery Support .....	146
Report on disaster recovery support following the Great East Japan Earthquake .....	146
<b>Feedback from Inside and Outside the Company .....</b>	<b>148</b>
Comments regarding our CSR Report 2012 .....	149
Third-party Comments on CSR Report 2013 .....	151
<b>Performance Data .....</b>	<b>153</b>

<b>Guideline Cross-Reference Tables</b> .....	<b>155</b>
GRI Guidelines Cross-reference List .....	156
Mitsui Chemicals' Commitment to ISO 26000 .....	168
<b>Download CSR Reports</b> .....	<b>170</b>
Online version - Individual sections - .....	172
<b>About CSR Report 2013</b> .....	<b>173</b>
<b>CSR Report 2013 Survey</b> .....	<b>174</b>
<b>CSR Site Map</b> .....	<b>175</b>





Message from the President



Safety Initiatives



Special Feature




Social and Environmental Initiatives Through our Business and Products

日本語

**CSR Management**

- CSR in the Mitsui Chemicals Group
- Management Framework



**Responsible Care**

- Mitsui Chemicals' Responsible Care Policy
- RC Promotion System
- Occupational Health and Safety
- Process Safety and Disaster Prevention
- Environmental Protection
- Chemical Management
- Quality
- Logistics




**Communication with Society**

- Respect for Human Rights
- Working with our Customers
- Working with our suppliers
- Working with our Shareholders
- Working with our Employees
- Working with Industry and Academia
- Working with Local Communities
- Social contribution activities
- Disaster Recovery Support



**CSR Site Map**

For quick access to needed information



**Safety Summary Sheet**



**Corporate Governance**



## Browse (list view)

**CSR Site Map**

For quick access to needed information.

**Guideline Cross-Reference Tables**

This section features cross-reference tables for economic, social and environmental requirements set out under international Global Reporting Initiative (GRI) guidelines and ISO 26000.

**Performance Data**

Data relating to environmental impact, conservation and more

## Expanding and improving activities

**About CSR Report 2013**

The philosophy behind our CSR (social and environmental) communication activities and focus on online resources

**Feedback from Inside and Outside the Company**

This section outlines the results of stakeholder surveys regarding our fiscal 2013 CSR Report.

**Download Reports**

Our latest report and previous reports are available as PDF files and in Digital Book format.

[Back to Top](#)

## Message from the President



Fulfilling our social responsibilities  
to help create a sustainable society

*T. Tanaka*

Toshikazu Tanaka  
President & CEO Mitsui Chemicals, Inc.

### Implementing Fundamental Safety Measures and Promoting a Culture of Safety

We would like to sincerely apologize once again for the explosion and fire that broke out at the resorcinol production facility at our Iwakuni-Ohtake Works on April 22, 2012, and for the serious inconvenience it caused for all those involved. We have always been committed to ensuring “safety as a top priority” in everything we do at the Mitsui Chemicals Group. That makes it all the more regrettable when an accident such as this does occur.

We took the situation extremely seriously and set up a third-party Accident Investigation Committee as soon as the accident occurred. We have since implemented preventive measures to tackle the immediate and underlying causes identified by the committee. We have also established a Fundamental Safety Committee, including outside experts, carried out a comprehensive review of our organizational climate, culture and technical training practices in order to guarantee safety, and put together a set of fundamental safety measures.

We intend to effectively implement these measures and establish a safety framework to ensure that nothing like this ever happens again. I am determined to lead the way as we work as a team to restore public trust as quickly as possible.

### Three-Axis Management and Results for Fiscal 2013

At the Mitsui Chemicals Group, we have been setting ourselves targets along three key axes – economic, environmental and social – and working to achieve those targets via our system of three-axis management ever since fiscal 2008, in an effort to contribute to the sustainable development of society and our own operations.

From an economic standpoint, sales fell by 3.3% year on year, to ¥1,406.2 billion, with operating income down by 80.1%, to ¥4.3 billion. This was due to a serious deterioration in business conditions, because of factors such as the sharp appreciation of the yen and the continuing global downturn, as well as the tragic accident at our Iwakuni-Ohtake Works. We also posted an extraordinary loss due to restructuring, resulting in a net loss of ¥8.1 billion for the year.

We have nonetheless been taking steps to transform our business portfolio for some time now, and are starting to see a steady increase in income from our functional chemical and functional polymeric material operations. We have also acquired a South Korean company manufacturing and selling glasses lens monomers and have signed up to a mega-solar project, one of the largest of its kind in Japan. With other developments such as the acquisition of German dental material company Heraeus, we have laid solid foundations for growth in the future.

From a social perspective, we took the accident at our Iwakuni-Ohtake Works extremely seriously and have been working flat-out on initiatives to ensure that nothing like that happens again. We have also earmarked employee health as a key management priority, based on our philosophy that healthy employees make for a healthy company. In recognition of initiatives such as these, we have received a special award from the Development Bank of Japan (DBJ) under its DBJ Health Management Rating scheme.

In terms of environmental initiatives, we set out a new CSR-oriented environmental policy with an even greater emphasis on “visualizing” the social and environmental contribution made by Mitsui Chemicals Group products and technologies, as one of our top priorities for fiscal 2013. We intend to build on that and focus even more on promoting visualization in the future. On other fronts, we successfully met our mid-term target for reducing greenhouse gas emissions in fiscal 2013, and were also able to achieve our targets with regard to minimizing industrial waste.

### Progress with our Mid-Term Business Plan

Under our current Mid-Term Business Plan, which started in fiscal 2012 and concludes in fiscal 2014, we set out a “5-5-5 Strategy” (focusing on five world-leading businesses, five priority businesses and five development areas), with the aim of establishing Mitsui Chemicals as a chemical company with a global presence. We have been channeling management resources into three areas in particular. These are highly functional products, in sectors such as health care, high added value polymers, including elastomers and polypropylene compounds, and phenol chains. We are planning to speed up efforts to transform our business portfolio in the future, revolving around these three core lines of business.

## Recovery Support for the Great East Japan Earthquake

We would like to once again extend our sympathies to all those who have been affected by the Great East Japan Earthquake and are still having to deal with inconveniences on a day-to-day basis, more than two years later. We have continued to provide assistance for people in the affected area ever since the immediate aftermath of the earthquake, through a range of different activities.

For example, we have sent group employees out to local schools and children's centers to organize "Adventure Class in Wonder-Chemistry" laboratory classes for children, at the request of people in the affected areas. We continue with initiatives such as these today. We will keep on pooling our intelligence and working hard on unique employee-led initiatives in the future, so that we can assist with the recovery of the affected area and do our bit for the children of the future.

## Contributing to the Sustainable Development of Society

There are countless social issues that need to be addressed, from climate change to energy issues and shortages of resources and food. At the Mitsui Chemicals Group, we regard these as risks and opportunities, and have provided various materials and services to date with the aim of fulfilling our corporate social responsibility (CSR) to contribute to the sustainable development of society through our business activities. As we are now living in an aging society, we are particularly focusing on the health care sector. In an effort to take things to the next level, we radically restructured our research and development operations in April 2013. We also developed a set of Core Values in August 2012, to capture the spirit of everyone working for the Mitsui Chemicals Group and act as a unifying force so that we can all continue to work together as a team.

We have made it one of our priorities to tackle issues and risks facing society, and are committed to stepping up innovation throughout the Group, so that we can provide products, technologies and services that make a difference to society.



## We support the UN Global Compact.

We signed up to the UN Global Compact in January 2008 and are determined to do our bit as a responsible corporate citizen to tackle global issues. With ISO 26000 in place and demand for global initiatives greater than ever, we are committed to upholding the ten principles of the Global Compact and always take the greatest possible care to protect human rights and the environment.



 United Nations Global Compact 

### Cross-reference table for the ten principals of the UN Global Compact

The 10 principles of the UN Global Compact			Reference pages (booklet)	Reference pages (website)
Human Rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights; and	-	Purchasing Policy CSR Procurement Personnel Advancement and Utilization
	Principle 2	make sure that they are not complicit in human rights abuses.	-	Purchasing Policy CSR Procurement Personnel Advancement and Utilization
Labour	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	-	Labor Relations Based on Frank Dialog and Mutual Understanding
	Principle 4	the elimination of all forms of forced and compulsory labour;	-	CSR Procurement
	Principle 5	the effective abolition of child labour; and	-	CSR Procurement
	Principle 6	the elimination of discrimination in respect of employment and occupation.	-	Efforts to improve awareness and conduct as a "good and trustworthy company" Promoting and utilizing human resources
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges;	-	Preventing Global Warming
	Principle 8	undertake initiatives to promote greater environmental responsibility; and	P12-14	Message from the President Special Feature 1: Tahara Solar-Wind™ Joint Project Special Feature 2: Chemical Management Efforts to improve awareness and conduct as a "good and trustworthy company" Identifying Key CSR Challenges Responsible Care Policy Purchasing Policy Ensuring the Safety of Chemicals and Chemical Products Environmental Impact Assessment Environmental Accounting Preventing Global Warming Reducing Industrial Waste



				Substances Subject to the PRTR Act Preserving air quality
	Principle 9	encourage the development and diffusion of environmentally friendly technologies.	P12-14	The Mitsui Chemicals' Group's Business and Main Products Special Feature 1: Tahara Solar-Wind™ Joint Project Special Feature 2: Chemical Management Efforts to improve awareness and conduct as a “good and trustworthy company” Responsible Care Policy Promotion of Joint Research and Projects
Anti-Corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.	-	Efforts to improve awareness and conduct as a “good and trustworthy company” Risk Management System Compliance Training

# Safety Initiatives

Implementing Fundamental Safety Measures and Promoting a Culture of Safety  
Learning from the Accident at Our Iwakuni-Ohtake Works Resorcinol Production Facility



On April 22, 2012, an explosion occurred and a fire broke out at the resorcinol production facility at our Iwakuni-Ohtake Works.

As well as saying a prayer for the employee who tragically lost his life in the accident, and offering our heartfelt condolences to his family, we would like to sincerely apologize once again to all those who were injured, sustained damage to their homes or facilities, or were otherwise inconvenienced as a result of the accident, including local residents, the authorities and our customers.

We took the accident extremely seriously and have since implemented a series of fundamental safety measures to ensure that nothing like this ever happens again, anywhere within the Mitsui Chemicals Group. We are working as a team to restore public trust and reestablish ourselves as a safe chemical manufacturer.

## Aerial image of the Iwakuni-Ohtake Works



## Outline of the Accident

### How the accident happened

1. At 23:20 on April 21, the work's steam supply plant was shut down and instructions given to shut down all plants using steam. After the steam supply plant was shut down, all plants at the works were safely shut down in accordance with procedure.
2. The emergency shutdown switch was thrown on the resorcinol production facility in order to shut down the plant. The emergency shutdown system then began cooling the oxidation reactor using emergency cooling water and nitrogen agitation.
3. Approximately 70minutes after the emergency shutdown, the decision was made to switch to the plant's regular cooling water supply, in order to speed up the cooling process. The emergency shutdown switch was released, interrupting the supply of nitrogen for agitation.
4. Once nitrogen agitation had stopped, the upper part of the oxidation reactor was no longer being cooled, because there was no cooling coil in that part of the reactor. This caused the liquid inside the reactor (hydroperoxide) to decompose. The resulting decomposition heat gradually raised the temperature and increased the speed of decomposition.

5. This produced decomposition gas and increased the pressure inside the oxidation reactor. Once the pressure exceeded the reactor's pressure capacity, the oxidation reactor burst, causing an explosion.

\* Outline of the resorcinol production facility

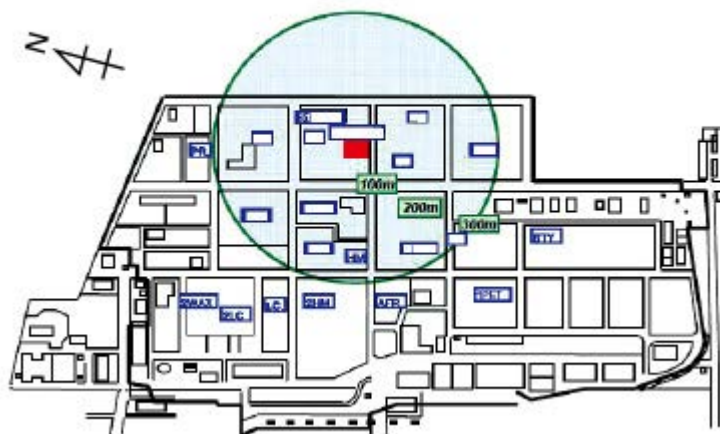
- Started operations in 1980, annual production capacity of 7,600 tons Resorcinol is used for purposes such as wood and tire adhesives

## Damage

(1) Casualties	1 dead, 25 injured	
(2) Physical damage	External	<ul style="list-style-type: none"> <li>• Damage to 999 buildings/homes</li> <li>• Partial damage to facilities owned by neighboring companies</li> </ul>
	Onsite	<ul style="list-style-type: none"> <li>• Severe damage to resorcinol production facility around the oxidation reactor</li> <li>• Damage to cymene plant and utilities piping rack, caused by the force of the explosion, flying debris and subsequent fire</li> <li>• Damage to 15 nearby plants, caused by the force of the explosion and flying debris</li> </ul>

### Extent of onsite damage

Plan of the Iwakuni-Ohtake Works

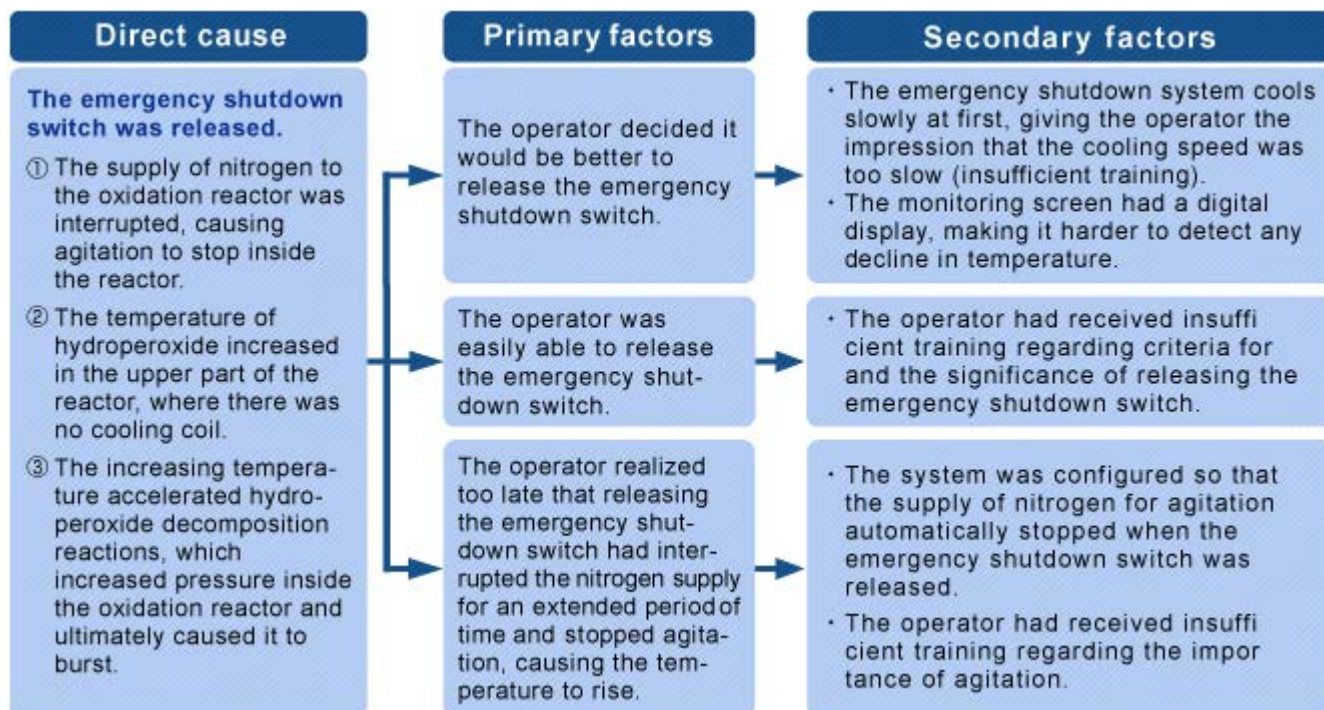


## Determining the Cause of the Accident and Preventive Measures

We put together an Iwakuni-Ohtake Works Resorcinol Production Facility Accident Investigation Committee, consisting of outside academic experts and specialists, as quickly as possible, to identify the causes of the accident and look into preventive measures to guard against similar accidents. The committee held a total of eight meetings, until the causes of the accident had been ascertained and our preventive measures approved.

→ Iwakuni-Ohtake Works Resorcinol Plant Accident Investigation Committee Report (1/23/2013)

## Causes of the Accident



## Preventive measures

### Inherent measures to prevent accidents

Equipment	<ul style="list-style-type: none"> <li>Increase cooling capacity</li> <li>Continue agitation</li> </ul>
Operational measures	<ul style="list-style-type: none"> <li>Tighten up conditions under which emergency shutdown switch can be released</li> <li>Review procedures for and provide training in reaction temperature management</li> </ul>

### Improving emergency operational management and technologies

Equipment	<ul style="list-style-type: none"> <li>Improve the automatic shutdown systems in the event of elevated temperatures inside the oxidation reactor</li> <li>Develop a monitoring screen to make it easier to detect irregularities inside the oxidation reactor, and install an alarm to alert the operator when agitation stops</li> </ul>
Operational measures	<ul style="list-style-type: none"> <li>Review training manuals and improve training in relation to emergency shutdown procedures</li> <li>Regularly review emergency shutdown procedures and equipment</li> </ul>



## Restoration and Safety Initiatives

With safety as our top priority, we have been working hard to restore operations at the Iwakuni-Ohtake Works, through measures such as ensuring that all equipment is sound and safe, restoring utility supplies, clearing away debris, removing damaged equipment and treating residual liquid inside the plant. This section outlines some of our initiatives.

### 1. General Piping Restoration Team

We put together a General Piping Restoration Team to carry out restoration work to repair damage caused to general piping throughout the works.

### 2. Logistics Group

The Logistics Group worked with partner companies to provide support for additional work that wouldn't normally be required, including transporting essential materials for restoration work, and collecting and removing rubble. It also focused on essential measures to enable us to maintain supplies of products to our customers while dealing with the accident, with the assistance of overseas affiliates in some cases.



Transporting materials and waste

### 3. Iwakuni Analysis Department, Mitsui Chemical Analysis and Consulting Service

As analysis buildings were damaged in the accident, we had to relocate to an off-site research facility. Mitsui Chemical Analysis and Consulting Service worked flat-out to restore our analysis capabilities, including basic infrastructure, and provided backup so that we could start shipping products and get the plant up and running again.

### 4. Iwakuni-Ohtake Office, MC Operation Support

Following the accident, roads inside the works were strewn with pipes, glass, slates, oil and other debris. MC Operation Support laid TAFNEL Oil Blotter (an oil adsorbent made by Mitsui Chemicals) over roads throughout the site to remove oil and other such substances, and worked flat-out to restore onsite roads. Cleaning was also required in numerous locations other than onsite roads. MC Operation Support took care of cleaning activities essential to the restoration process, including removing liquid debris from locations such as drainage channels.

## Fundamental Safety Committee

We implement a range of safety activities throughout the Mitsui Chemicals Group, based on our management policy of making safety our top priority in everything we do. Despite our best efforts however, a serious accident still occurred and caused considerable inconvenience to a great many people.

We took this accident extremely seriously and in May 2012 set up the Fundamental Safety Committee, a companywide team chaired by the President and including outside experts. Since then, the committee has carried out an extensive review of safety issues throughout the Mitsui Chemicals Group and looked into fundamental safety initiatives. Based on the committee's findings, in January 2013 we set out and implemented a number of fundamental safety initiatives for the future.

[To Become a Safe Chemical Manufacturer : Our Future Efforts in Fundamental Safety \(1/23/2013\)](#) (PDF : 109KB)

For further details regarding the Fundamental Safety Committee, please see the interview with Hideki Matsuo (Executive Officer and Center Executive, Production & Technology Center), who oversaw the Practical Review Team right from the start. For more information on initiatives at the Ichihara Works, please see the interview with Masaki Nagayama, the then Director of the Ichihara Works Safety & Environmental Department.

[Fundamental Safety Committee](#) [Initiatives at the Ichihara Works](#)

### Organizational Structure of the Fundamental Safety Committee

### Fundamental Safety Committee

**Chair** : President  
**Deputy Chair** : Managing Executive Officer responsible  
**Members** : Senior Managing Executive Officers, Managing Executive Officers, Works General Managers, outside experts  
**Role** : Discussing the contents of reports submitted by the Practical Review Team, and giving instructions and feedback to the Practical Review Team

Reports

Confirmation/instructions

### Practical Review Team

**Team Leader**  
Production & Technology  
Center Deputy Executive

**Secretariat :**  
Corporate Planning Division /  
Production & Technology Center

Outside consultants

In conjunction with outside consultants, the secretariat conducts interviews with members of staff at all levels at each works, in order to identify key themes.

Subcommittees are then established for each theme.

**Members** : Selected from a wide range of areas (with additional input from outside experts where applicable)

**Role** : Narrowing down areas of exploring measures, monitoring current situation, identifying, coordinating and prioritizing problems, discussing measures

# Fundamental Safety Committee

Creating a corporate culture with a stronger emphasis on safety,  
based on three broad issues and 11 specific measures



Hideki Matsuo  
Executive Officer  
Center Executive, Production & Technology Center  
Mitsui Chemicals, Inc.

The Iwakuni-Ohtake Works Resorcinol Accident Investigation Committee, a group of outside experts, completed its report on January 23, 2013. Entitled “Efforts in Fundamental Safety: You are responsible for your own safety. What should you do to stay safe?” (“Fundamental Safety”), we went right ahead and published the report that same day.

Fundamental Safety focused on three broad issues and 11 specific issues, identified as a result of a companywide investigation and subsequent discussions.

The three issues were (1) “line manager focus and proper management of worksite,” (2) “improve technical skills and ensure skills are passed down,” and (3) “ensure safety is the top priority, cultivate professionalism, and give workers a sense of accomplishment.”

Within those three issues, the report then identified 11 specific measures, including “reduce work load to allow line managers to focus sufficient attention on managing worksites,” “train engineers to understand onsite work,” “review technical assessment systems and structure to prevent problems,” “cultivate and strengthen professionalism,” and “implement measures to give workers a sense of accomplishment in safety performance and operations.”

The report was compiled by the Fundamental Safety Committee, chaired by President Toshikazu Tanaka. According to Hideki Matsuo, Executive Officer and Center Executive of Mitsui Chemicals' Production & Technology Center, (then Production & Technology Center Deputy Executive), who headed up the committee's Practical Review Team, “the subtitle to Fundamental Safety – ‘You are responsible for your own safety. What should you do to stay safe?’ – really captures the essence of our activities.”

“As well as physically improving working environments and equipment in order to ensure safety, we need individual employees to think independently and autonomously about risks and hazards, and to come up with improvements for themselves. We need to create a culture in which people are more proactive about ensuring safety, rather than just waiting for instructions.”

That applies to employees at Head Office and other branches too, as well as the company's works. When going up or down emergency staircases for instance, we should all make a conscious effort to use the handrail.

“If we can establish safety initiatives and efforts to improve safety standards as part of our corporate culture, it will help us to create a team in which each and every employee has a strong sense of professionalism. Those are the two essential elements we need to ensure safety.”

## Examining safety measures from a new perspective

Following the accident, we immediately put together an Accident Investigation Committee consisting of outside experts, and worked with the committee to ensure that the causes of the accident were investigated fairly and objectively. In May 2012, we set up a Fundamental Safety Committee and began a comprehensive review of all of our safety systems, including group companies.

The committee highlighted four key points, namely “ability to think,” “professionalism,” “technical skills” and “responsibility, authority and roles.” Interviews were then conducted based on these key points with around 350 employees at five different works, in an effort to identify problem areas. To encourage employees to speak their mind, outside consultants were brought in to actually conduct the interviews. At the same time, three working groups were set up to discuss matters in more depth, one to “review and study line operations,” one to “study technical skills and passing down of such skills” and one to “study motivation.”

In November 2009, an accident occurred involving nitrogen trifluoride filling facilities at Shimonoseki Mitsui Chemicals, one of our affiliates. The accident affected a great many people, including local residents, and prompted us to step up safety initiatives as a result. If anything, employees at our Iwakuni Works were more determined in their safety initiatives than anywhere else.

“Even so, that didn't stop another accident occurring at Iwakuni. We realized that we needed to examine safety measures from an entirely new perspective if we wanted to prevent any further accidents from happening. That's why we decided to bring in outside consultants to conduct interviews and identify problem areas.”

While this was going on, President Tanaka toured round all of the company's sites, including overseas facilities, and joined in discussion sessions with around 3,400 employees during the period from August to September. Having explained, “safety is for your own benefit, for the benefit of your family, and for the benefit of your colleagues,” the President called



on all employees to “think for yourself about how to ensure safety, based on our stated aim of putting safety first in everything we do.”

According to Matsuo, “the working groups focused more closely on fundamental issues, and continued to discuss coordinated measures involving both Head Office and the company's works.”

To enable line managers to focus management activities on their respective worksites for instance, requests will no longer be given directly from individual divisions at Head Office to specific worksites within each works, as previously. This represents a bold departure in terms of operating methods. We will also be dividing sections within each works, so that they are suitably scaled to ensure proper management, even it costs more. This will enable section managers to get down onto their worksites, establish a clear picture with their own eyes and communicate effectively with their employees.

In terms of improving and passing down technical skills, we will be focusing human resource development measures mainly on engineers. We will be rotating personnel in order to give engineers a better understanding of onsite work and to enable section managers to manage their sections properly. As part of measures aimed at ensuring safety is our top priority, cultivating professionalism and giving workers a sense of accomplishment, we intend to create organizations in which safety and environmental departments have more authority and responsibility when it comes to monitoring and providing instructions on safety. As well as introducing an incentive scheme, we are also taking steps to create more attractive positions for line managers so that employees would aim to be promoted to line managers and to strengthen teamwork. We are determined that measures such as these will produce real results in terms of safety, by ensuring that all employees uphold the principles and initiatives set out by their works.

#### **“Safety depends on every aspect of manufacturing.”**



We have earmarked “efforts in fundamental safety” as one of our companywide objectives for fiscal 2014 and have also taken budgetary measures. As well as continuing to explore worksite-specific initiatives via the Fundamental Safety Committee, we are also planning to bring in outside experts and related organizations to conduct assessments. In response, one of the members of the Accident Investigation Committee commented, “including the company's culture and operating systems like that is genuinely fundamental.”

One point that Matsuo was particularly keen to stress is that “safety depends on every aspect of manufacturing.” Ensuring safety will not only improve the quality of manufacturing at Mitsui Chemicals, but it will also strengthen our business.

Maintaining safe works and a safe company is crucial in order to earn public trust and improve people's opinions of what we do. “Safety initiatives have nothing to do with looking back over our shoulders. We are looking ahead and are focused on ensuring that all of our employees to learn valuable lessons from this accident. We are determined to put our heads together and create an environment in which all of our employees can actively ensure safety.”

## Initiatives at the Ichihara Works

Devising policies based on a deeper, stronger sense of reality  
and an understanding of the true meaning of safety



Masaki Nagayama  
Director, Safety & Environmental Department  
Ichihara Works  
Mitsui Chemicals, Inc.

The Ichihara Works acts as a “mother plant” for the Mitsui Chemicals Group. It has therefore started to develop new safety measures, in line with the company’s “efforts in fundamental safety,” to serve as an example to the rest of the group. Masaki Nagayama is Director of the Safety & Environmental Department, which is in charge of safety measures at the Ichihara Works. On the subject of Fundamental Safety, he commented, “I believe that ‘people’ are key. Although some of the specific measures aren’t new as such, we nonetheless need to fundamentally reassess how we go about the relevant activities.”

By way of a concrete example, Nagayama is quick to highlight the works’ approach to training. It already made extensive use of photos and illustration diagrams in its manuals and procedures, to make them easier to understand at a glance. It has always passed down technical skills meanwhile through on-the-job training (OJT), supplemented by videos of experienced workers carrying out procedures and frequent training for young employees at Mitsui Chemicals’ Technical Training Center, located at our Mobara Branch Factory in Chiba prefecture.

“Fundamental Safety strongly recommends practical and safety training at the Technical Training Center, in order to improve and pass down technical skills. It was left to us however to come up with measures to translate that into concrete results. It’s obviously important to provide more learning opportunities, but we need to explore measures that provide a more in-depth understanding too. I’d say that’s what the word ‘fundamental’ means.”

Nagayama emphasizes the importance of “know-why,” as well as know-how, as part of employees’ day-to-day efforts to ensure safety. Having spent many years tackling safety issues, this has become something of a guiding principle or personal motto for Nagayama. It also ties in perfectly with the mantra set out in Fundamental Safety; “you are responsible for your own safety.”

“We need to get people into the habit of thinking about the ‘know-why’. That’s one of the prerequisites for specific training in areas such as operating machinery. If you immediately question things as soon as you sense that something is out of the ordinary, you will help to prevent accidents. If you ignore things like that, you end up falling behind and spending all your time dealing with problems after the fact.”

### The dilemma of being an outstanding plant

#### Promoting a working understanding of all processes

One of the measures set out in Fundamental Safety to improve technical skills is to “conduct risk assessment when constructing, reinforcing and modifying equipment, and review technical assessment systems and structure to prevent problems.” In reality however, that poses a considerable challenge when it comes to actual worksites. There is a dilemma that any facility faces once its industrial technology reaches maturity.

“Some of our more experienced employees were involved in setting up the works. Due to the standard of equipment back then, they had lots of opportunities to work hands-on with machinery, following malfunctions for instance. They learnt things by physically doing them. As our equipment is far better quality these days, there are fewer opportunities to start up or shut down plants. Some of our younger employees probably think of a plant as something that never stops running. Needless to say, there are fewer opportunities to physically learn things too.”

Compounded by varying safety perceptions, between employees at different position levels or of different ages, Nagayama feels that this dilemma makes safety training harder.

“As a chemical company, we handle high-pressure gases and plenty of other hazardous materials. I’m sure that young employees on the shop floor are paying closer attention to risks and safety than other people their age. At the same time however, we all tend to carry out highly specialized operations, meaning that we know little or nothing about what goes on in other departments. Personally, I think that we need a working knowledge and understanding of all processes if we are genuinely going to make safety our top priority. It’s going to be difficult if things remain as they are now. That’s why we need new concepts and ideas. Fundamental Safety proposes measures based on a clear understanding of issues such as that.”

Nagayama isn’t prepared to sit back and do nothing. He is constantly working hard to share information on hazards, get hands-on with machinery and learn more about processes in general. KY (*kiken yochi* (hazard prediction)) advisors play a central role for instance, by sharing information on any potential hazards, even if there have been no “near misses” as yet. They check the industrial accident database every day and take steps to eliminate worksite hazards whenever there is any

new information.

Things didn't go according to plan following the emergency shutdown (ESD) initiated after the accident at the Iwakuni-Ohtake Works. Building on lessons learnt from that experience, training based on unexpected phenomena following an ESD was conducted across all of its production facilities.

In addition, a system was introduced whereby production and technical divisions work together to manage plants. Under the new system, technical members of staff responsible for equipment management train operating staff on key points to look out for when on patrol.

"It's a case of eliminating the constraints between managing and operating staff, and getting them to share their expertise with one another. That will help to improve technical skills and cultivate professionalism, enabling us to make safety our top priority."

### Teaching employees the basic importance of "visualizing" safety activities



According to Nagayama, the basic elements of safety activities have always been the same, including improving KY standards, capitalizing on "near misses," implementing the 5Ss\*, and actively coming up with ideas for improvements. As mentioned earlier however, hazards start to seem less real as the quality of equipment continues to improve. In many cases, employees feel like safety initiatives are "what they are forced to do." As a result, employees are less aware of the basics, and the importance of integrating safety activities into all operations, and tend to engage in activities on a more sporadic basis.

Nagayama is now focusing on the importance of "visualizing safety activities." This refers to the process of carefully analyzing worksite operations and visualizing key points in terms of safety, so that specific measures can be devised and introduced at each worksite. The aim of visualization activities such as these, and hands-on experience, is to get employees to appreciate the importance of basic activities and integrating them into all operations. That is why "managers need to adopt the same perspective as worksite operators and partner companies."

He has just one final point to add. "It is our mission to ensure safety and give people peace of mind, not just for ourselves but for others too, including members of the local communities and the authorities. That's why we need to tell people about our efforts. In the future, we intend to look into activities such as showing the community what our worksites are doing to ensure safety."

\*5Ss: *seiri* (tidiness), *seiton* (orderliness), *seiso* (sweeping), *seiketsu* (cleanliness), and *shitsuke* (discipline)

## Safety Day

Having designated April 22, the date of the accident, as “Safety Day”, we implemented a number of companywide safety-related initiatives on April 22, 2013, one year on from the accident.

On the day itself, we got together just over 500 employees at the Iwakuni-Ohtake Works to listen to a speech delivered by the President. As well as reflecting on the accident once again, he underlined the need to effectively implement preventive measures and restore public trust in our safety record. We also erected a Safety Monument, to symbolize the thoughts and feelings of all employees working at the Iwakuni-Ohtake Works regarding the accident. The entire workforce pledged to make safety the top priority in everything they do, and to make sure that there are no more tragic accidents in the future.

We have also set up a Safety Training Room at the Iwakuni-Ohtake Works, including a display featuring photos of the accidents and fragments of the exploded oxidation reactor. This will be used as part of training for new recruits and plant operators.

We are committed to working together throughout the Mitsui Chemicals Group, to ensure that nothing like this ever happens again.



Monument symbolizing employees' commitment to safety



The President giving a speech about safety



Employees demonstrating their commitment to safety initiatives

The power of “chemistry” continues to play an increasingly important role in the creation of a sustainable society. In this year's report we take a closer look at some of our wide-ranging initiatives, concentrating on two ambitious projects.

Special Feature 1 profiles one of the country's largest scale solar and wind power projects, focused firmly on the future of renewable energy. Special Feature 2 meanwhile outlines our efforts to assess the environmental impact of our products, based on a unique environmental index, and to “visualize” their contribution to society and the environment.

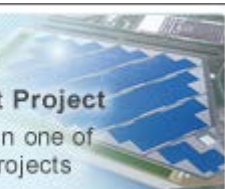
We are committed to creating a sustainable society through initiatives such as these, throughout the Mitsui Chemicals Group, and will continue to fulfill our social responsibilities.



### Special Feature 1:

#### Tahara Solar-Wind™ Joint Project

Conducting operating tests on one of the country's largest scale projects



### Special Feature 2:

#### Chemical Management

“Visualizing” products' contribution to society and the environment

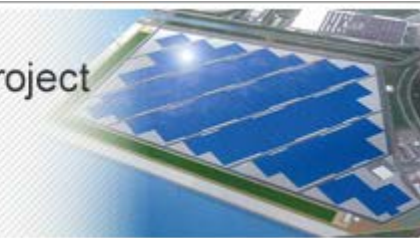




## Special Feature 1: Tahara Solar-Wind™ Joint Project

Pooling expertise for the future of renewable energy

First steps towards testing one of the largest facilities in Japan



日本語

In conjunction with Mitsui & Co. and five other companies, Mitsui Chemicals is working on a combined solar and wind power project capable of generating 56MW in Tahara, Aichi prefecture. Although operations aren't scheduled to commence until October 2014, we are also looking into organizing an environmental education program at the facility, in partnership with the local authorities.

### Making the most of natural conditions, with some of the longest hours of daylight and average wind speeds in the country

Almost all of the Atsumi Peninsula falls within the city limits of Tahara in Aichi prefecture. Bordering Mikawa Bay, industrial land along the peninsula is home to numerous plants operated by major auto manufacturers and their affiliates. We had actually acquired an adjacent area of industrial land ourselves, but it had remained unused due to changes in our business plans.

The area in question is 800,000m<sup>2</sup>, roughly 17 times the size of Tokyo Dome or 15 times the size of Nagoya Dome. We are now using that land to install a 50MW solar power facility (panel output from 215,000 panels) and a 6MW wind power facility. The entire output of both facilities will then be sold on to Chubu Electric Power.

Tahara is one of the top locations in the country in terms of hours of daylight and average wind speeds. With around 2,200 hours of daylight every year and average annual wind speeds of approximately 6-7m/s (Midorigahama, Tahara), it boasts some of the best figures in Japan.

This means that the planned solar power facility will have an estimated annual operating rate of 12%, which is enough power to meet the needs of 90% of households in Tahara (around 19,000 households). The wind power facility meanwhile is expected to have an annual operating rate of 30%.

"This is the first time in Japan that solar and wind power facilities generating power on a mega scale have been combined like this", explains Executive Officer and General Manager of the Environment & Energy Business Division Shin Fukuda, who is overseeing the project on behalf of Mitsui Chemicals.

"Tahara City has also welcomed the development of the power industry in the area, as it ties in with its own 'Eco Garden City' project."



Solar panels installed on the vast 800,000m<sup>2</sup> site

### A joint project between seven companies, funded through syndicated loans

The solar and wind power project in Tahara is about more than just utilizing unused land. Another advantage is that it will serve as comprehensive testing facility for technology and operations relating to solar and wind power.

We already market a number of related products within the Mitsui Chemicals Group, including SOLAR EVA™ solar cell encapsulant sheets, solar cell adhesives, and LUCANT™ lubricant additives, which are also suited for use with wind power. We are also working to develop a number of other materials with applications in the field of renewable energy.

Each of the companies participating in the joint project – Mitsui & Co., Ltd., Toagosei Co., Ltd., C-TECH Corporation, Toshiba Corporation, Toray Industries, Inc., and Mitsui Engineering and Shipbuilding Co., Ltd. – has its own proven track record and expertise, in areas such as planning and operating solar power facilities, developing materials, commercializing solar panels and installing facilities.

The project is going to cost a total of ¥18 billion. In addition to investment from each of the participating companies, the project is being funded by syndicated loans, chiefly from the Development Bank of Japan. It has also received subsidies from Aichi Prefectural



**Shin Fukuda**  
Executive Officer  
General Manager,  
Environment & Energy

Government, under its “Subsidy Program to Support R&D for the Creation of New Aichi”, and from Tahara City, as part of a corporate relocation incentive scheme.

Business Division  
Doctor of Engineering

From funding all the way through to technical development and operations, this project has always been about pooling a wide range of expertise within the field of solar power. Tests at the facilities are scheduled to get underway in June 2014, with operations due to go fully online in October that year. The facilities are designed to be operational for a period of 20 years from that point onwards.

“Having such a long operating period means that we can be assured of turning the project into a profitable business, but it will also enable us to share the various problems we encounter along the way, and their solutions, between the participating companies. That will enhance levels of expertise across the board and hopefully enable us to keep on harnessing natural energy” (Fukuda).

### Plans to develop an environmental education program at the local level

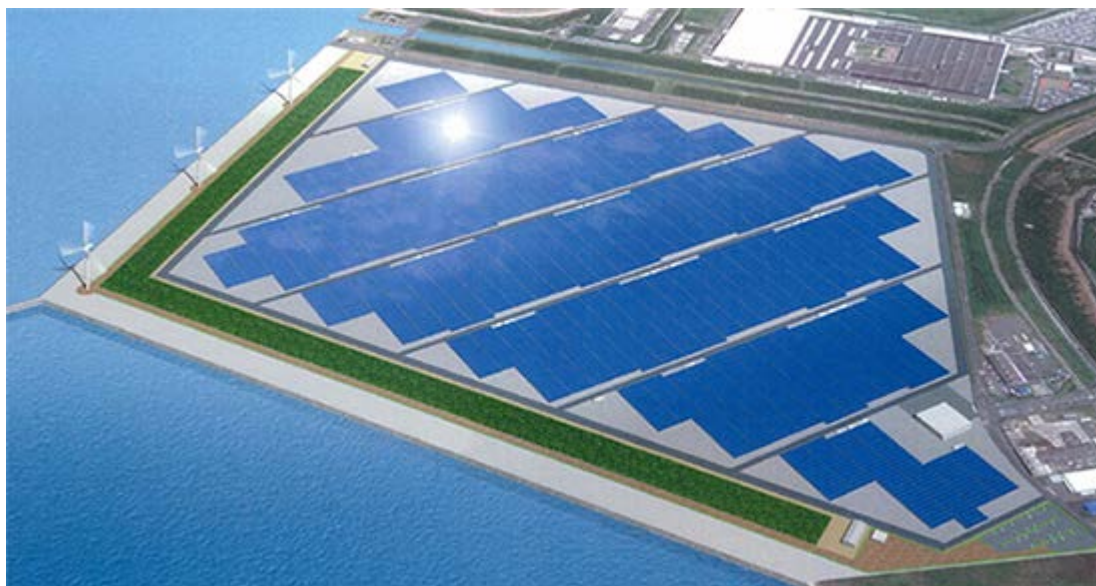
Rising 250m above sea level with sweeping views over Mikawa Bay and the Pacific, Mount Zao is located roughly four kilometers from the south side of the solar and wind power facilities. The summit is currently used by local people as a picnic area. As well as rest facilities, there is also a lookout platform, to the side of which is a 300kW wind power facility. It is intended to symbolize “low environmental impact urban development harnessing natural resources”.

In the near future, Mount Zao will have views over solar and wind power facilities with a total output of 180MW, looking out over other solar power projects as well as our own.

Tahara City is keen to get other power-related companies on board too, as well as Mitsui Chemicals. “There is increasing momentum behind plans to develop and run an environmental education program”, explains Fukuda. “I assume that such a program would include the views from Mount Zao, observation of the surrounding natural environment and guided tours to solar power facilities.”

As well as developing materials for the solar power industry, here at Mitsui Chemicals we are also running a project aimed at extracting gas from untapped urban resources. The process of developing these and other environmental technologies could potentially be extended to a whole host of other technologies that have previously relied on fossil fuels. “If we lead the way in terms of technical innovation, we can hopefully do our bit to ensure energy security for the entire country, not least through solar power”, says Fukuda.

### Artist's impression of the completed facility



Facility Data	
Project name :	Tahara Solar-Wind™ Joint Project
Generating capacity :	Solar : 50MW (modular output, power conditioner output : 35MW) Wind : 6MW
Combined output for solar and wind power :	Approx. 67,500MWh/year (Enough to power approximately 19,000 households, roughly 90% of all households in Tahara)



Reduction in CO2 emissions :	Approx. 32,000t/year (Equivalent to the volume of CO2 absorbed by approximately 2.3 million cedar trees)
Location :	Midorigahama, Tahara, Aichi prefecture (Land owned by Mitsui Chemicals : Approx 800,000m <sup>2</sup> )
Construction :	Start : November 2012 Operational : October 2014 (scheduled)

## Special Feature 2 : Chemical Management

Visualizing products' contribution to society and the environment




日本語

In an effort to achieve our corporate mission, we have adopted a system of three-axis management, focusing on economic, social and environmental considerations. We implement a range of initiatives aimed at helping to create a sustainable society.


### Reinforcing the foundations of chemical management

As a chemical manufacturer, it is absolutely fundamental that we ensure the safety of all Mitsui Chemicals products if we want to remain in business. We have positioned comprehensive chemical management as one of our top priorities under our current Mid-Term Business Plan, which has been in place since fiscal 2011. We have also set out a Chemical Management Strategy and are constantly working to reinforce the foundations of chemical management.

The term “chemical management” covers every aspect of risk management, including gathering information, evaluating risks, assessing environmental impact and minimizing risks. That applies throughout a product's life cycle, from development, manufacturing, shipping, usage and processing through to the end user, disposal and treatment. The first step is to establish a practical, integrated information management system. We also take every opportunity to engage in communication, through activities such as providing customers with assessment results along with safety data sheets (SDS)<sup>\*1</sup>, publishing data via our website (<http://www.mitsuichem.com/ps/> ) and providing the government with information on hazardous materials.

We believe that disclosing a wide range of information through communication with stakeholders is a crucial means of managing the risks associated with chemicals throughout their life cycle.

### Establishing “m-SI” as a new environmental impact index unique to the Mitsui Chemicals Group

We are also working to “visualize” the contribution that our products make to society and the environment throughout their life cycle. When we manufacture a product, and that product is used, it contributes to the environment. To actually visualize that contribution, we have established the “mitsui Sustainability Index”, or m-SI for short. We use m-SI as a measure, to enable us to assess environmental impact in 11 different categories, including reduction in greenhouse gas emissions and prevention of environmental contamination. For instance, we assessed the contribution that our NOx (nitrogen oxide) reducing agent AdBlue<sup>TM</sup><sup>\*2</sup> makes to society and the environment based on m-SI, and also carried out a quantitative life cycle assessment (LCA)<sup>\*3</sup>. As a result, we found that AdBlue<sup>TM</sup> helps to reduce NOx by 36,000 tons annually based on domestic sales, and shared that information with our customers (<http://mitsui-adblue.jp/environmental/lca.html> )

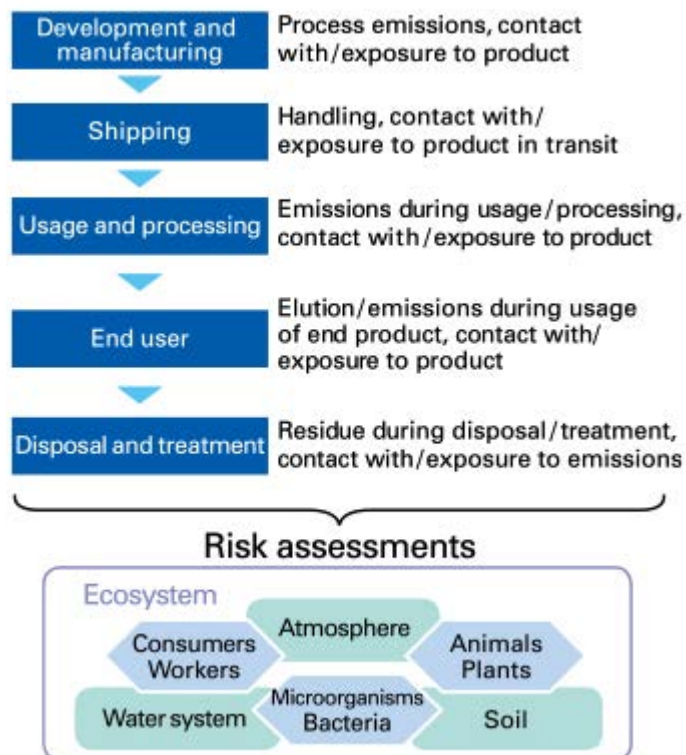
We intend to assess more products in the future, and supply new products that make an even greater contribution to society and the environment, so that we, as a chemical manufacturer, can continue to make a difference to society and the environment through our products.

\*1 Safety data sheets (SDS) are issued by companies when shipping a chemical or other such substance to another company. They contain information such as the name of the substance, the name of the supplier, hazard and toxicity levels, and details of safety measures and emergency procedures.

\*2 AdBlue<sup>TM</sup> is a registered trademark of the German Association of the Automotive Industry (VDA).

\*3 Life cycle assessment (LCA) is a method of quantitatively assessing the environmental impact of a product at every stage of its life cycle, from development to manufacturing, shipping, usage and disposal.

## ■ Risks throughout a product's life cycle



### Staff comments

#### “Visualizing” products' contribution

As one of the foundations of chemical management here at Mitsui Chemicals, we introduced a fully functional integrated information management system in April 2013. Members of the companywide project team had to overcome countless hurdles, but we nonetheless managed to launch the system according to plan. By the time our products reach the consumer, they have often been changed or processed into something else by our customers. We therefore disclose a range of information on the environmental impact of our products throughout their life cycle as part of our stakeholder risk communication activities. In an effort to “visualize” the contribution that our products and technologies make to society and the environment meanwhile, we have introduced the m-SI index and commissioned a third party review, in the interests of fairness. We are nonetheless determined to keep on supplying products that make a greater contribution to society and the environment.



**Kaori Matsue**

General Manager, Chemicals  
Safety Department  
Safety & Environment  
Division

### Stakeholder message

#### Helping to visualize social and environmental contributions

As we try to create a sustainable society, there is growing demand for companies to make an active contribution too, as key members of society. If that contribution relies on effective and innovative ways of reducing environmental impact, then it is essential that companies have verification methods that are transparent and highly repeatable. Mitsui Chemicals has been working to develop its own unique verification system called m-SI, designed to comprehensively evaluate product capabilities. The company deserves a great deal of credit for taking the bold step of applying this method to a wide range of products in combination with life cycle assessments (LCA), another evaluation method that quantitatively assesses products over their entire life cycle. While environmental footprint trials are getting underway in Europe, companies in Japan are actively developing methods of evaluating environmental impact on a global scale. More and more advanced environmental evaluation methods look set to be developed in the future as well, at an increasingly fast pace. I hope that Mitsui Chemicals will continue to keep an eye on trends such as these, flexibly reassess evaluation methods and translate its findings into quick decisions, as it continues to



**Norihiro Itsubo**

Professor, Faculty of  
Environmental Studies, Tokyo  
City University  
Doctor of Engineering

lead the way forward for industries in this sector.

# Tackling Social and Environmental Issues through the Mitsui Chemicals Group's Business and Main Products

**The Mitsui Chemicals Group provides a whole host of useful materials and products to improve people's everyday lives**

The chemical industry is all about dreaming up new ways to improve and enrich people's lives. The Mitsui Chemicals Group provides innovative technologies and materials that are designed to benefit society as a whole across a wide range of business categories, from automotive, electronic and IT materials to lifestyle, environment, energy and packaging materials. This section introduces some of the flagship products in each of the Mitsui Chemicals Group's four main business categories.

## The Mitsui Chemicals' Group's Business Categories and Main Products (FY2014)

- Industrial and lifestyle materials
- Comfort and functional materials
- New energy and environmental material
- Health and high quality materials

### Industrial and lifestyle materials for a more convenient and stable life (Clothing, food, housing materials, etc.)

Our global supply network provides  
wide-ranging support for social  
infrastructure and people's everyday lives.

#### Basic Chemicals

##### Raw materials for polyester fibers

- Purified terephthalic acid (PTA)

##### Polycarbonate resins

- Phenols



PTA is the raw material used to make polyester fibers, which in turn are used in various types of clothing.

#### Packaging Materials

##### Drinks bottles, packaging for food products, detergents, cosmetics and pharmaceuticals

- Mitsui PET™
- Polyethylene (Evolue™), etc.
- Polypropylene (Prime Polypro™)



Mitsui PET™ is used in a wide range of containers, including drinks bottles and food packaging. Thanks to their outstanding rigidity and strength, Evolue™ films are used for purposes such as drinks bottles and functional packaging for everyday items.



Prime Polypro™ is used for a wide range of purposes, including single-serving jelly pots and sealable films.

# Comfort and functional materials

for a safe and full life  
(High-grade materials, electronic  
and IT materials, automotive materials, etc.)

( We provide growth industries with  
highly functional products and help to  
enrich people's lives. )

## Semiconductor process materials

### Wafer back-grinding protective tape

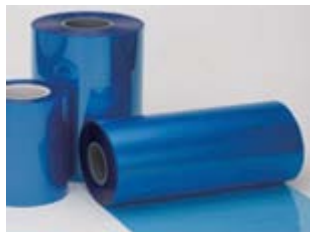
- ICROS™ TAPE

### Dust-proof photomask covers

- Mitsui Pellicle™

### Etching/cleaning gas

- Nitrogen trifluoride



ICROS™ TAPE is designed to protect the surface of wafers from backgrinding during wafer processing as part of the semiconductor manufacturing process.

## Disposable diapers and everyday items

### Nonwoven fabric

- SYNTEX™

### Breathable film

- ESPOIR™

### Shape-holding materials

- TEKNOROTE™



ESPOIR™ nonwoven films are used to make disposable diapers, thanks to their outstanding breathability.



TEKNOROTE™ is used in items such as facemasks. It is a user-friendly material that enables masks to be freely adjusted whilst in use.

## Everyday and household films

### Preserving film for fresh food

- Spash™

### Fast biodegradable film

- Palseal™ CB



In addition to preserving fresh food to keep it fresh, Spash™ can also be used to prevent fruit, vegetables and flowers from wilting or losing their color.



Palseal™ CB garbage bags are made from a combination of biodegradable resins so that they biodegrade quickly inside garbage disposal units. As Palseal™ CB bags can be put straight into the garbage disposal, they make the disposal process more hygienic and convenient.

## Antibacterial films and sheets

### Hygienic films and sheets with copper alloy coated surfaces

- COPPERSTOPPER™



Designed to harness the antibacterial properties of copper, COPPERSTOPPER™ contains integrated copper alloy and is expected to prove particularly useful in areas such as



sanitation. Applying COPPERSTOPPER™ to a product gives it antibacterial properties and enables it to be used for a wide range of purposes, from preventing the spread of infection within hospitals to reducing odors in laundry bags.

### Useful everyday coating materials

#### Hydrophilic coatings

- NOSTRA™



NOSTRA™ is a highly hydrophilic UV (ultraviolet) curable coating. Applying NOSTRA™ to a base material such as plastic or glass makes the material highly resistant to staining, fogging, abrasion and static, and enables it to dry quickly. This makes it harder for dirt to adhere to materials such as bathtubs, flooring and wall coverings. It also makes it easier to remove dirt, which can help products to save water and conserve energy.

▲ [Back to Top](#)

## New energy and environmental materials

for a more environmentally friendly life  
(Solar power, biomass, etc.)

We do our bit to help solve key issues facing mankind, by providing environmental solutions in new growth markets for instance.

### Solar power components

#### Solar cells

- SOLAR EVA™
- Monosilane



High durability SOLAR EVA™ plastic sheets are used to encapsulate the entire base of each solar cell, in order to protect the cell.

### Materials for eco-friendly vehicles

#### Lithium ion battery components

- MiReT™ (electrolytes)
- CHEMIPEARL™ (electrode binder)



## Biomass chemicals

### Biopolyurethane materials

● ECONICOL™



ECONICOL™ is a polyurethane (biopolyol) made from plant-based materials and is used in a wide range of products, such as furniture, bedding and car seat cushions.

## Lightweight automotive materials

### Adhesive polyolefins

● ADMER™

### Olefin copolymers

● TAFMER™

### Thermoplastic elastomer

● MILASTOMER™



In combination with barrier resins, ADMER™ polyolefins help to prevent leaks from fuel tanks and reduce the weight of tanks themselves.



TAFMER™ improves the shock resistance of automotive plastics so that they can be used in place of metals to help make vehicles lighter.



MILASTOMER™ is used for interior automotive materials (door rims, interior panels, etc.) in order to help make vehicles lighter.

▲ [Back to Top](#)

## Health and high quality materials

for a comfortable, high quality life  
(Healthcare, catalysts, agrochemicals, etc.)

We create high quality products in order to contribute to areas such as healthcare, elderly care, agriculture and catalysis science in new and different ways.

## Lens materials

### High refractive index optical lenses

● MR™ Series



The MR™ Series consists of raw materials for high quality optical plastic lenses, combining a high refractive index with superior shock

resistance. MR™ materials enable optical lenses to be light yet strong.

## Dental materials

### Resin cements for dental adhesives

- Super-Bond™



Super-Bond™ resin cements are used in dental adhesives. Thanks to their outstanding adhesive performance and biocompatibility, they have been highly acclaimed by dentists and are widely used by patients all over the world.

## Agrochemicals

### Environmentally friendly crop protection

- FRUITSAVER™ (fungicide)
- ANIKI™ emulsion pesticide

### Great-tasting, late-flowering, high-yield hybrid rice

- Mitsuhihari 2003 and 2005



FRUITSAVER™ is an agricultural fungicide made from the active ingredient penthiopyrad. It is effective at preventing major diseases in fruit trees, including pears, apples and grapes, and even works against diseases that are resistant to conventional products.



Mitsuhihari 2003 and 2005 are late-flowering, high-yield strains of rice that taste great.

## CSR Management

CSR is not something that exists independently, outside our day-to-day corporate activities. We believe that CSR is the very essence of corporate management. That is why we introduced “three-axis management” here at the Mitsui Chemicals Group, focusing on the economy, society and the environment. This section outlines our approach to CSR and CSR management framework, both of which are underpinned by three-axis management.

### ► CSR in the Mitsui Chemicals Group

Ever since establishing a dedicated department to promote CSR in 2005, we have carried out CSR activities with the aim of establishing the Mitsui Chemicals Group as a “good and trustworthy company” that lives up to people's expectations and repays their trust. We are constantly working to inspire hope and trust in members of the public, whilst at the same time inspiring pride and motivation in our employees. By continuing to carry out activities such as these, we believe that we can help to create a sustainable society.

#### ► The aims of CSR

#### ► Framework for the creation of a “good and trustworthy company”

#### ► The Mitsui Chemicals Group's Core Values

#### ► Identifying Key CSR Challenges

#### ► Mitsui Chemicals' commitment to ISO 26000

### ► Management Framework

To fulfill the expectations of our stakeholders, fulfill our corporate social responsibilities, and enhance levels of trust, it is crucial to have a sound, reliable management framework in place. We believe that an effective management framework is one of the cornerstones of a successful business.

#### ► Goals and Results

#### ► Corporate Governance

#### ► Risk Management Framework

#### ► Compliance Training

# CSR in the Mitsui Chemicals Group

▼ The aims of CSR

▶ Framework for the creation of a “good and trustworthy company”

▶ The Mitsui Chemicals Group's Core Values

▶ Identifying Key CSR Challenges

▶ Mitsui Chemicals' commitment to ISO 26000

## The aims of CSR

If we want to help create a sustainable society as a company, we first of all need to inspire trust and hope in members of the public and other stakeholders. To achieve that, we need to create a “good and trustworthy company” that inspires pride and motivation in every one of its employees. The most important thing we can do to create a “good and trustworthy company” is to keep thinking all the time, so that we can continue to act accordingly and take on new challenges. Since fiscal 2011, we have been working to achieve our goal of becoming a “good and trustworthy company” based on a set of Key CSR Challenges, with the aim of ensuring that individual departments are working towards the same direction, and through initiatives such as workplace-led Two-Way Communication activities (discussion sessions between senior and junior members of staff and colleagues in each workplace).

▶ Key CSR Challenges for FY2013   ▶ Two-Way Communication

▶ Mitsui Chemicals Group Grand Design   ▶ Mid-term Business Plan

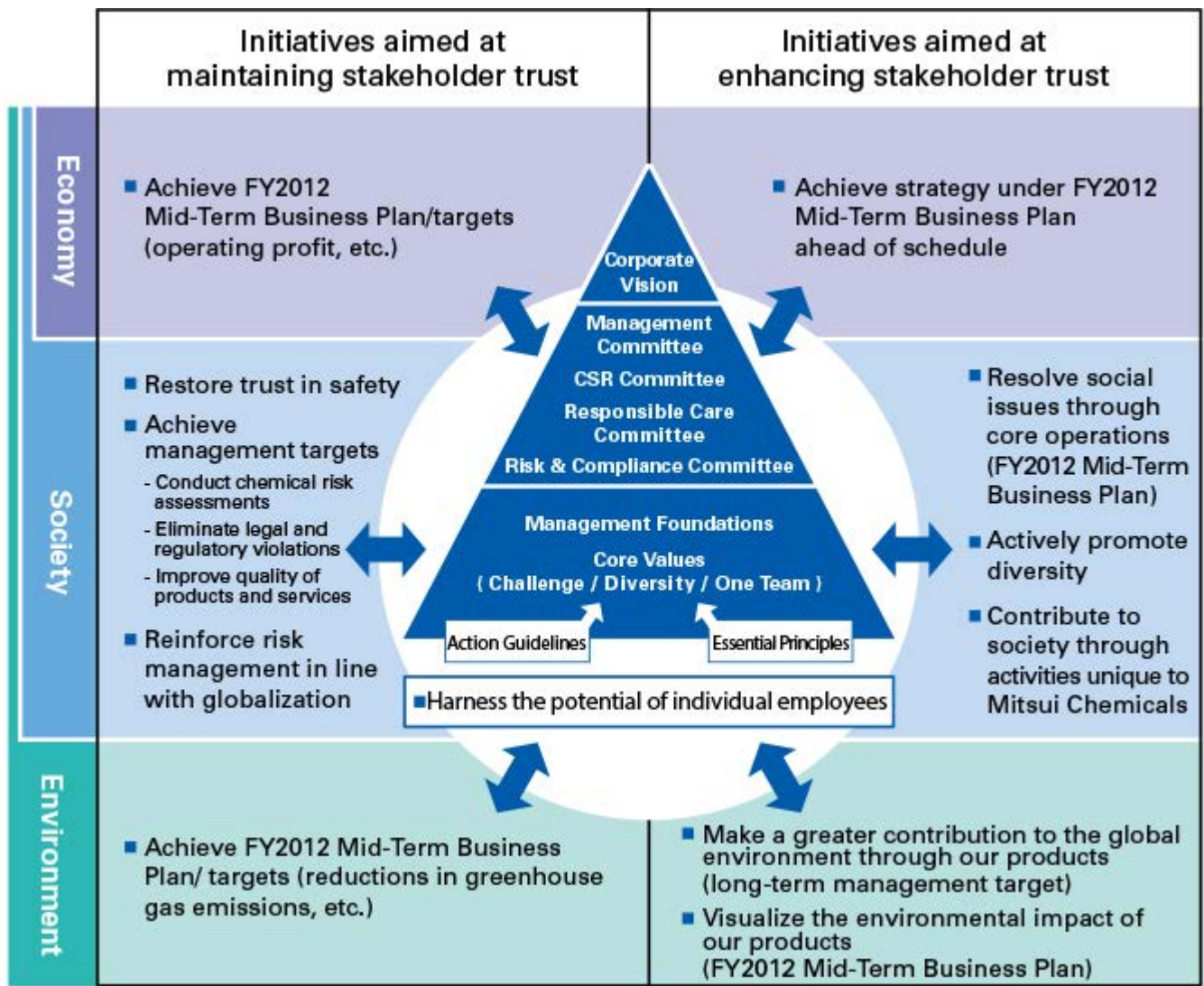
## Overview of the Mitsui Chemicals Group's CSR initiatives

We carry out a wide range of initiatives with the aim of establishing the Mitsui Chemicals Group as a “good and trustworthy company”. In fiscal 2008, we made a clear commitment to “three-axis management”, focusing on the economy, society and the environment. This is the cornerstone of our initiatives here at the Mitsui Chemicals Group.

In an effort to create a sustainable society, we actively engage in two types of initiatives. As well as ongoing initiatives aimed at maintaining the trust of our stakeholders along all three of these axes, we also carry out initiatives designed to enhance trust amongst stakeholders.

In August 2012, we formulated a set of Core Values (Challenge, Diversity, One Team). The aim of these Core Values is to capture the spirit of everyone working at Mitsui Chemicals Group sites around the world and to act as a unifying force, ensuring that we can all keep on working together as a team.

### Overview of CSR Activities



Our approach to becoming a “good and trustworthy company”



# CSR in the Mitsui Chemicals Group

► The aims of CSR

▼ Framework for the creation of a “good and trustworthy company”

► The Mitsui Chemicals Group's Core Values

► Identifying Key CSR Challenges

► Mitsui Chemicals' commitment to ISO 26000

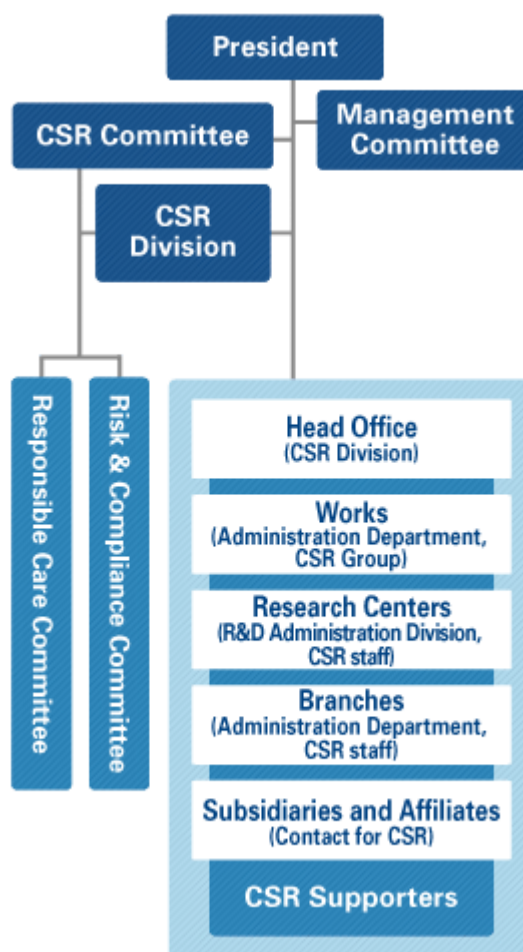
## Framework for the creation of a “good and trustworthy company”

Our CSR Committee, which is chaired by the President and meets twice a year as a rule, is responsible for discussing and finalizing plans and policies relating to CSR activities within the Mitsui Chemicals Group. This includes our Key CSR Challenges, which provide the basis for individual organizations throughout the company to formulate and implement their own plans.

In an effort to shift focus onto active initiatives as part of our groupwide business activities, we extended membership of the CSR Committee to include the heads of all divisions within the company (Directors and General Managers) in fiscal 2011 and have been discussing specific initiatives ever since.

Having set up supervisory CSR departments at each of our sites, branches and affiliates, we are working to promote CSR in line with their respective characteristics, whilst also reinforcing collaboration within the group.

### CSR Promotion Framework



## Efforts to improve awareness and conduct as a “good and trustworthy company”

In order to retain the public's trust and meet their expectations, we have identified the following three “Essential Principles” and are committed to putting them into practice on a companywide scale.



1. Adopt a proactive, outward-looking attitude
2. Think for yourself and take on new challenges
3. Maintain mutual trust and solidarity

We have been organizing Two-Way Communication sessions throughout the Mitsui Chemicals Group since fiscal 2008. Sessions are led by the line manager in each workplace and attended by all members of staff. They revolve around free and open discussion, covering topics such as what members of staff can do to create a “good and trustworthy company” and how to put our Essential Principles into practice, and two-way communication geared towards taking action. We encourage members of staff to honestly discuss a range of different topics in each workplace, including works, branches and affiliated companies as well as Head Office. Rather than merely discussing issues however, it is important to establish a shared awareness, so that all members of staff in the workplace are determined to implement decisions made during communication sessions.

We also have our own “CSR Supporter” scheme, which has been in place since we first established a dedicated CSR division in 2005. CSR Supporters are employees selected from each workplace (having put themselves forward or been recommended) and are instrumental in promoting CSR activities in their respective workplace. As well as playing a key role in social contribution activities, CSR Supporters are currently providing line managers with support in order to promote Two-Way Communication activities.

CSR is an integral part of business. Although it is obviously crucial for top management to show the right attitude and commit to CSR, we also need to get our employees involved, because they are the ones who implement CSR as part of our day-to-day business activities. Rather than adopting a top-down approach only, we are focused on grass-roots initiatives such as our CSR Supporter scheme and Two-Way Communication sessions, ongoing activities that are spearheaded by our employees.

### Mitsui Chemicals Group Action Guidelines

Every officer and employee of the Mitsui Chemicals Group will act in accordance with the following action guidelines to enhance the sustainable development of society and company by making contributions to each of our stakeholders\*.

\*Our stakeholders: customers, suppliers, shareholders/investors, local communities, academia/chemical industry, government, employees/labor market, global environment

#### We will always act in good faith

##### **Compliance with the laws and regulations**

We will give priority to compliance with laws and regulations over any pursuit of profit.

##### **Honesty**

We will live up to our conscience with honest words and actions.

##### **Non-tolerance of discrimination**

We will not tolerate discrimination against gender, race, nationality, age, religion and disabilities.

##### **Justice and fairness**

We will strictly observe the fair competition and trade.

##### **Transparency**

We will promptly report and provide precise information without distinguishing between the favorable or unfavorable information.

#### We will have a high regard for people and society.

##### **Safety first**

We will act with a mind-set focused on safety-first policy above all.

##### **Contribution to the global environment**

We will conduct R&D, manufacturing and sale of products that will contribute to the protection of the global environment.

##### **Customer satisfaction**

We will promptly provide high-quality products and services by accurately grasping customer needs.

##### **Contribution to communities**

We will contribute to the development of local communities as members of those communities.

##### **Health enhancement**

We will be mindful of enhancing our health and making our workplaces vibrant.

##### **Respect for diversity**

We will have mutual respect for the diversity of personalities, individualities and views.

#### We will aim for the “Dream-Inspiring Innovation”.

##### **Challenging spirit**

We will unflinchingly challenge with full trust in our potential without fear of failure.

##### **Creativity**

We will create novel values by enhancing our sensitivity.

##### **Workplace-oriented approach**

We will always consider and act proactively based on the actual data and facts at workplace.

##### **Self-improvement**

We will aim to be world-class professionals with a global view.

##### **Technology dissemination**

We will cultivate the next generation by passing on our experiences and technologies.

##### **Teamwork**

We will integrate individual strength into the organization through active communication.



# CSR in the Mitsui Chemicals Group

► The aims of CSR

► Framework for the creation of a “good and trustworthy company”

▼ The Mitsui Chemicals Group's Core Values

► Identifying Key CSR Challenges

► Mitsui Chemicals' commitment to ISO 26000

**We have formulated a set of “Core Values” for the Mitsui Chemicals Group.**

**– Creating a “new” Mitsui Chemicals, built on safety and sincerity –**

## The Mitsui Chemicals Group's Core Values

In August 2012, we set out three Core Values for the Mitsui Chemicals Group. Although we already had a Corporate Mission and a set of Action Guidelines, they had always been underpinned by the same fundamental values. As the name suggests, our Core Values are intended to serve as guidelines when making decisions and carrying out operations on a global scale.

### **Challenge**

### **Diversity**

### **One Team**

The aim of these Core Values is to capture the spirit of everyone working at Mitsui Chemicals Group sites around the world and to act as a unifying force, ensuring that we are all working towards the same goals.

Our Corporate Mission here at the Mitsui Chemicals Group is to create innovative materials and provide high quality products and services to customers to benefit society as a whole, whilst at the same time working in harmony with the environment. In order to put this into practice, we want each and every one of our employees to take these values to heart, as a set of guidelines governing their day-to-day decisions, actions and communication.

#### **1. “Challenge”**

We believe that it is important to have a strong spirit, think things through carefully, actively take on new challenges head-on, and take responsibility for your actions. That strong sense of determination is what drives us to continue taking on new challenges.

#### **2. “Diversity”**

Our aim is to be a chemical company with a global presence. We believe that globalization is a question of mutual understanding between different cultures and respect of other people as individuals. We are always thinking about what is best for the Mitsui Chemicals Group, based on that same spirit of mutual understanding and individual respect.

#### **3. “One Team”**

There are always limits to what we can achieve as individuals. If we work together to reach our objectives however, we believe that we can achieve even greater results. We aim to join forces and work together as a team, regardless of differences such as position, age, gender, nationality, organization or location.

# CSR in the Mitsui Chemicals Group

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## Identifying Key CSR Challenges

### Key CSR Challenges for fiscal 2013

We have implemented a range of initiatives based on our Key CSR Challenges for fiscal 2013, which were to “create ‘strong frontline capabilities’ underpinned by independent thought and a challenging spirit, in order to earn more trust from our stakeholders and continuously enhance corporate value”.

In fiscal 2014, we intend to roll out initiatives on an even more comprehensive basis, as we continue to focus on the same Key CSR Challenges as fiscal 2013.

### Key CSR Challenges for fiscal 2014

“Create ‘strong frontline capabilities’ underpinned by independent thought and a challenging spirit, in order to earn more trust from our stakeholders and continuously enhance corporate value.”

Specific initiatives will focus on the following four challenges.

1. Encouraging employees to realize their potential and translate that into action
2. Improving “visualization” of environmental and social initiatives, as part of three-axis management
  - Continuing to discuss indices and numerical targets
3. Restoring public trust in safety
  - Implementing PDCA processes at the management level in response to measures set out by the Fundamental Safety Committee
4. Addressing potential risks in line with globalization

# CSR in the Mitsui Chemicals Group

► The aims of CSR

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► Identifying Key CSR Challenges

▼ Mitsui Chemicals' commitment to ISO 26000

## Mitsui Chemicals' commitment to ISO 26000

ISO 26000, the international standard for social responsibility, was released in November 2010. Applicable to all organizations not just companies, the standard provides guidance specifying an organization's social responsibilities and how they should go about fulfilling those responsibilities.

Unlike other ISO standards, there is no certification requirement with ISO 26000. As a company that has always been receptive to feedback from stakeholders and made every effort to incorporate stakeholders' opinions into our activities however, we nonetheless operate in accordance with ISO guidance because it helps us to reaffirm the importance of our initiatives and assign priorities.

Starting this fiscal year, we will be using the following format to outline our initiatives, in line with the seven core subjects set out under ISO 26000 as part of social responsibility.

## Key initiatives in line with core subjects under ISO 26000

Core Subjects	Key Initiatives
Corporate governance	<b>Three-axis management, Key CSR Challenges</b> <ul style="list-style-type: none"> <li>Promoting three-axis management, focusing on the economy, society and the environment</li> <li>Implementing initiatives in each division based on Key CSR Challenges</li> </ul>
Human rights/ labor practices	<b>Diversity</b> <ul style="list-style-type: none"> <li>Promoting a climate that actively encourages diversity Changing awareness with regard to diversity, through line manager training, educational seminars, etc.</li> <li>Providing career development support Promoting female employees to managerial positions and utilizing employees of other nationalities</li> <li>Helping employees to achieve a work-life balance Raising awareness on an ongoing basis through activities such as workshops, reviewing childcare and nursing care schemes, expanding measures to create more free time</li> </ul> <b>Employee health</b> <ul style="list-style-type: none"> <li>Assigning full-time industrial physicians, nurses and healthcare managers to healthcare sections at all facilities</li> <li>Assigning part-time industrial physicians, nurses and other healthcare professionals to major plants operated by our affiliates, in an effort to improve the health of all group employees</li> <li>Continuing to focus on preventing mental health conditions and lifestyle-related diseases, and on reducing hygiene risks, in fiscal 2013, paying particular attention to metabolic syndrome, mental health in younger employees and health risks for employees working overseas</li> </ul>
The environment	<b>Preventing pollution</b> <ul style="list-style-type: none"> <li>Reducing emissions of hazardous air pollutants, minimizing industrial waste, reinforcing and promoting chemical safety management</li> </ul> <b>Mitigating climate change</b> <ul style="list-style-type: none"> <li>Reducing greenhouse gas emissions, promoting development of innovative energy saving technologies</li> </ul>

	<p><b>Using sustainable resources</b></p> <ul style="list-style-type: none"> <li>• Making more of an effort to visualize contributions to the environment, promoting development of environmentally oriented products and technologies</li> </ul>
Operating practices	<p><b>CSR procurement</b></p> <ul style="list-style-type: none"> <li>• Providing feedback on CSR Procurement Survey results to all suppliers and asking suppliers scoring below a certain level to make improvements</li> </ul>
Consumer issues	<p><b>Quality control and quality assurance</b> Implementing quality control and quality assurance, as the two central pillars of quality management</p> <ul style="list-style-type: none"> <li>• Implementing specific quality control activities in each division, including manufacturing, design, purchasing, logistics and sales</li> <li>• Implementing quality assurance activities spearheaded by our Quality Assurance Department, independently of sales and manufacturing</li> </ul>
	<p><b>Responding to customer feedback</b></p> <ul style="list-style-type: none"> <li>• Striving to resolve customer complaints as quickly as possible, through collaboration between the departments concerned</li> </ul>
Community involvement	<p><b>Dialog with local communities</b></p> <ul style="list-style-type: none"> <li>• Engaging in communication with local residents living in the vicinity of our facilities</li> <li>• Promoting mutual understanding with the community by arranging community meetings to discuss environmental preservation and safety initiatives in the areas where our works are located, organizing plant tours, attending meetings with neighborhood associations and participating in local events</li> <li>• Publishing newsletters at least twice a year at our five domestic works and making them accessible to local residents, to enable communication on a broader basis</li> </ul>

# Management Framework

## ▼ Goals and Results

## ▶ Corporate Governance

## ▶ Risk Management Framework

## ▶ Compliance Training

To earn the trust of our shareholders, customers, members of the local community and all of our other stakeholders, and to fulfill our corporate social responsibilities, it is crucial to put in place and effectively operate a solid management framework, covering everything from corporate governance to risk management and compliance. Here at the Mitsui Chemicals Group, we are committed to reinforcing our management framework in order to provide stronger foundations for our corporate activities.

## Goals and Results

### Goals for Fiscal 2013

- Review BCP and procedure for ensuring the safety of employees in the event of a major earthquake in the Tokyo metropolitan area

### Fiscal 2013 Results

#### Level achieved: A

- Conducted annual review of BCP
- Improved employee safety measures and distributed handbooks outlining measures to all employees

### Goals for Fiscal 2014

- Organize BCP training in the event of a major earthquake in the Tokyo metropolitan area

※ Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more, C: less than 70%



# Management Framework

► Goals and Results

▼ Corporate Governance

► Risk Management Framework

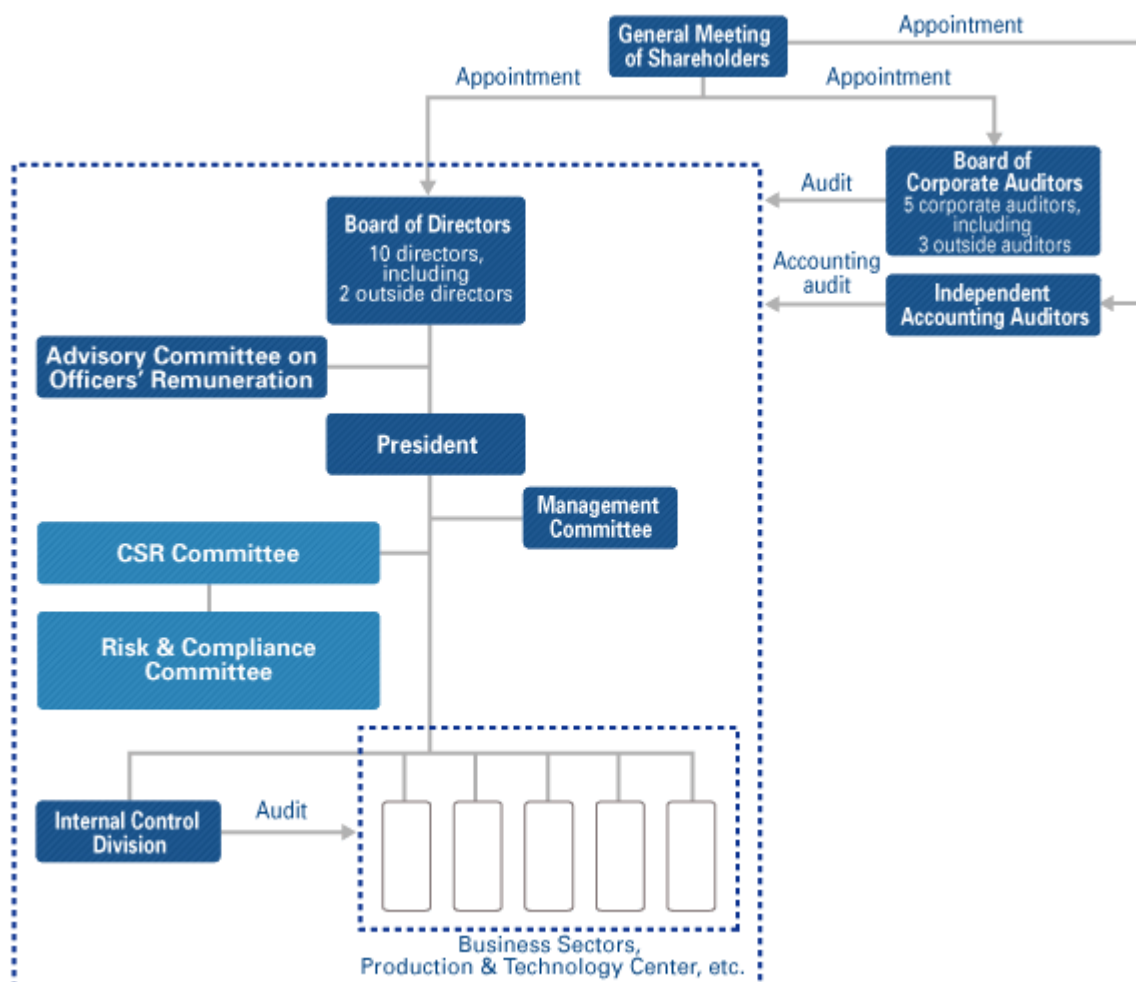
► Compliance Training

## Corporate Governance

### Our approach to corporate governance

We are committed to full management transparency in everything that we do, to earn the public's trust and fulfill our corporate social responsibility. We have in place a framework to ensure that all important decisions are broadly discussed through meetings and bodies, established in accordance with our company regulations, and operate an internal control system that includes measures such as appointing outside directors and emphasizing the role of corporate auditors. We actively engage in IR and public relations activities and make every effort to disclose information to our shareholders, the media and other parties in an appropriate and timely manner in order to ensure effective corporate governance.

### Corporate governance framework and CSR



## Corporate Governance Measures

### Board of Directors

As a rule, the Board of Directors meets once a month to make decisions regarding key management issues. Individual board members submit operational updates and reports on the company's financial standing and results to the board, which is also responsible for auditing their professional performance.

## **Executive officer system**

We introduced an executive officer system to clearly delineate responsibility for supervising and executing operations. In April 2012, we introduced the post of Executive Officer as well as Executive Director, with roles clearly apportioned between the two in an effort to further clarify executive capabilities. The system is designed to reinforce and improve management procedures, by speeding up the decision making process and by facilitating and accelerating operations in each division.

## **Corporate and internal audits**

Our Corporate Auditors attend key internal meetings, including meetings of the Board of Directors, and are able to exchange opinions with the President and management personnel on a regular basis. They also check approval forms and minutes from key meetings.

Our Corporate Auditors conduct audits in conjunction with independent accounting auditors and our Internal Control Division, enabling them to exchange opinions regarding matters such as annual auditing plans and audit results.

## **Management Committee**

We established the Management Committee to discuss key operational issues and matters requiring prior consideration before they are submitted to the Board of Directors, thereby enabling us to make decisions correctly and efficiently. Our Corporate Auditors also attend committee meetings and are able to offer their opinions whenever necessary.

## **Internal Control**

We established the Internal Control Division to continually monitor and assess the implementation and operational status of internal controls within the Mitsui Chemicals Group, as required under the Companies Act and the Financial Instruments and Exchange Act, and to ensure that operational risks are kept within tolerable levels at all times. The division is also responsible for maintaining and improving internal control standards throughout the Mitsui Chemicals Group and conducting internal audits to ensure that our operations are being carried out appropriately and efficiently.

The Internal Control Division specifically focuses on the following areas.

### **Self-assessment-based internal audits relating to legal and regulatory compliance**

As part of a system introduced in fiscal 2009, we subject internal controls relating to legal and regulatory compliance to self-assessments and conduct internal audits based on the results at all applicable divisions and domestic affiliates. Having started to roll out the system to overseas affiliates in fiscal 2011, it is now fully up and running.

### **Compliance with the Financial Instruments and Exchange Act (submission of internal control reports)**

We conduct annual assessments to determine the effectiveness of internal controls relating to financial reporting, in preparation for the submission of internal control reports.

# Management Framework

► Goals and Results

► Corporate Governance

▼ Risk Management Framework

► Compliance Training

## Risk Management Framework

At the Mitsui Chemicals Group, we carefully control all risks that could potentially threaten our business activities, to earn the trust of our shareholders, customers, members of the local community and all other stakeholders, and to fulfill our corporate social responsibility.

### Risk & Compliance Committee

We established the Risk & Compliance Committee, which is headed by the director in charge of risk management, in order to review our risk management policy and to maintain and implement systems in accordance with our risk management regulations.

### Group Risk Management System

We introduced the Mitsui Chemicals Group Risk Management System to quickly identify risks and prevent them from materializing. The system involves identifying key risks within the annual budget of each group company or division and implementing measures accordingly.

We also use tools such as compliance checklists as part of a PDCA<sup>\*</sup> cycle designed to monitor progress with risk management measures and prevent risks from materializing.

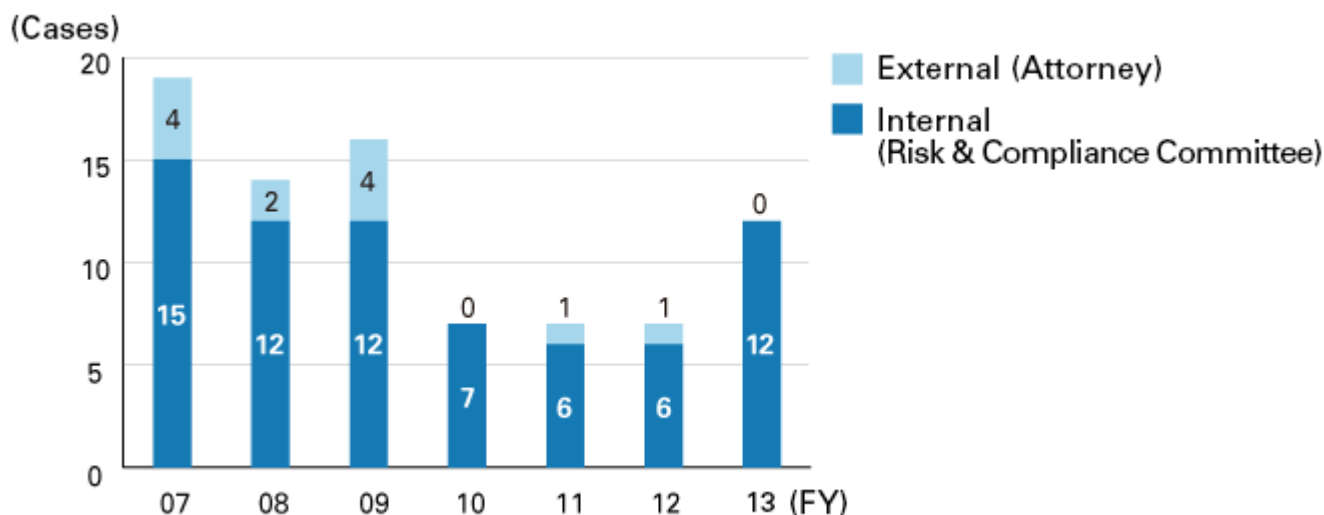
\* PDCA: Plan, Do, Check, Act

### Structure of our Group Risk Management System



Our Risk Hotline enables any group employee who has obtained information relating to risks, including details of illegal activities going on within the company, to directly report the matter to and seek advice from the Risk & Compliance Committee or an outside attorney. Our company regulations clearly state that employees using the hotline to report or seek advice about an incident must not receive unfavorable treatment. The hotline is also open to reports and requests for advice from employees working for contractors at our works or other sites and those working for companies supplying us with items such as raw materials or parts.

#### Risk Hotline statistics



#### Business Continuity Plans (BCP)

We have formulated a Business Continuity Plan (BCP)\* for execution in the event of a major earthquake in the Tokyo metropolitan area. The plan outlines the establishment of an emergency headquarters, to quickly establish a chain of command in the event that Head Office is unable to function, and emergency customer response centers, to provide our customers with support quickly and effectively.

In fiscal 2014, we intend to organize extensive BCP training, in light of the increased risk of a major earthquake in the Tokyo metropolitan area. Following on from that, we also intend to review regulations and BCP, focus on raising awareness in the workplace and install essential equipment, as part of an effective PDCA-based approach to business continuity.

\* BCP: Business Continuity Plan

# Management Framework

► Goals and Results

► Corporate Governance

► Risk Management Framework

▼ Compliance Training

## Compliance Training

To promote compliance, it is absolutely essential that each and every employee is aware of the need for compliance on an individual level and has a working knowledge of all applicable laws and regulations. To raise awareness, we organize compliance awareness training and example-based workplace discussions on legal and regulatory violations. In order to improve employees' knowledge meanwhile, we organize legal and regulatory compliance training and compile a compliance guidebook that employees can refer to at any time. These are the four key methods that we use to ensure compliance within the Mitsui Chemicals Group.

### Example-based workplace discussions on legal and regulatory violations

The Mitsui Chemicals Group has been organizing example-based workplace discussions on legal and regulatory violations since fiscal 2009. These discussions involve members of staff in each workplace discussing examples of compliance violations at Mitsui Chemicals and at other companies, with a focus on the causes, preventive measures and the potential for similar occurrences in their own workplace. The aim is to raise awareness of legal and regulatory compliance and reinforce communication with senior members of staff. Discussions have received a positive response in many of our workplaces, with some departments voluntarily increasing the frequency of discussion sessions and others picking out examples of particularly relevant violations at other companies.

### Compliance manuals

In an effort to comprehensively raise awareness of compliance on an individual level, in 2003 we compiled a compliance guidebook (revised in 2006 and 2012) summarizing important points to consider when carrying out operations as a Mitsui Chemicals Group employee and distributed copies to all group employees. In addition to the existing Japanese and English editions, in 2009 we compiled a new Chinese edition containing information on Chinese laws and regulations. Copies were distributed primarily to our subsidiaries in China.

We use these manuals to help promote compliance on a day-to-day basis.

### Compliance awareness training

The awareness of individual directors and employees is the most important factor to ensure compliance. The required level of awareness varies however depending on each individual's position within the company. We therefore tailor the contents of compliance awareness training to suit every level, from management to new recruits.

Our goal is for individuals at every level to take the initiative and set an example for others, thereby raising levels of compliance awareness throughout the group and creating a more open corporate culture.

### Legal and regulatory compliance training and e-learning

Here at the Mitsui Chemicals Group, we organize legal and regulatory compliance training in order to improve employees' knowledge. Training is provided via e-learning or group training sessions, both of which cover specific laws and internal regulations that our employees need to be aware of in order to carry out their duties. We also organize customized training sessions for individual divisions or affiliates on request.

Required subjects vary depending on the contents of each employee's duties. We also require employees to re-take courses on a regular basis to ensure that they are aware of recent developments.



This section outlines our responsible care (RC) initiatives, which form the basis of our wide-ranging business activities here at the Mitsui Chemicals Group. This includes occupational health and safety, process safety and disaster prevention, environmental protection, chemical management, quality and logistics, as well as our RC promotion framework.

## ▶ Mitsui Chemicals' Responsible Care Policy

We set out basic requirements for responsible care activities throughout the Mitsui Chemicals Group.

▶ Responsible Care Policy

## ▶ Occupational Health and Safety

We put safety first in everything that we do. Here at the Mitsui Chemicals Group, we implement a range of companywide initiatives aimed at preventing accidents and occupational injuries.

▶ Goals and Results

▶ Creating Safe and Secure Workplaces

▶ Employee Health

## ▶ Environmental Protection

Here at the Mitsui Chemicals Group, we make sure that all of our business activities are in harmony with the global environment.

▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

▶ Preserving air quality

▶ Preserving water quality

## ▶ Chemical Management

We are committed to rigorous management of chemicals at Mitsui Chemicals, and fully support the Word Summit on Sustainable Development (WSSD) pledge to minimize the negative impact of chemicals on people and the

## ▶ RC Promotion System

Here at the Mitsui Chemicals Group, we regard reinforcing corporate governance as one of the cornerstones of our business, in terms of earning the trust our shareholders, customers, members of the local community and all of our other stakeholders, and fulfilling our corporate social responsibilities.

▶ Goals and Results

▶ RC initiatives

▶ Environmental Safety, Occupational Health, and Quality Audits

## ▶ Process Safety and Disaster Prevention

Here at the Mitsui Chemicals Group, we are constantly striving to improve our process safety and disaster prevention capabilities.

▶ Goals and Results

▶ Process safety and disaster prevention training

▶ Safety Assessments

▶ Process Safety and Disaster Prevention Drills

▶ Investments in health, safety and disaster prevention

▶ Biodiversity

▶ Environmental Accounting

▶ Input⇒Output

▶ Environmental Impact Assessment

▶ Handling Environmental Complaints

## ▶ Quality

We are committed to continually improving the level of quality management here at the Mitsui Chemicals Group, under our Basic Policy Regarding the Environment, Safety, Occupational Health and Quality. We also make every

environment by the year 2020.

▶ **Goals and Results**

▶ **Ensuring the Safety of Chemicals and Products**

▶ **Risk Assessments for Mitsui Chemicals Products**

▶ **Logistics**

Here at the Mitsui Chemicals Group, we carry out a wide range of initiatives to ensure that our products are transported safely.

▶ **Goals and Results**

▶ **Transporting Products Safely**

effort to improve the quality of our products and services so as to increase customer satisfaction even further.

▶ **Goals and Results**

▶ **Quality Improvement Initiatives**

## ▼ Responsible Care Policy

### Responsible Care Policy

We determine the basic elements of responsible care (RC) activities implemented throughout the Mitsui Chemicals Group in accordance with our Basic Policy Regarding the Environment, Safety, Occupational Health and Quality, which was fully reviewed by the Management Committee before being brought into effect. It is through initiatives such as these that we strive to earn the public's trust, whilst at the same time facilitating our own business activities.

#### Japan Responsible Care Council (JRCC)

RC encompasses all of the activities that companies manufacturing or handling chemicals pledge to undertake based on the principles of self-determination and responsibility. Activities span the entire life cycle of each product, from development and manufacturing to transport, use, consumption and disposal, and are aimed at protecting the environment, ensuring safety (process safety, disaster prevention, occupational safety and chemical safety), and maintaining occupational health and quality, as a matter of basic policy. All activities are self-managed, and involve measures and improvements relating to the environment, safety, occupational health and quality.

## ▼ Goals and Results

## ▶ RC initiatives

## ▶ Environmental Safety, Occupational Health, and Quality Audits

In accordance with Mitsui Chemicals' Basic Policy Regarding the Environment, Safety, Occupational Health and Quality, we carry out responsible care (RC) activities based on six functional categories; environmental protection, process safety and disaster prevention, occupational health and safety, chemical safety, quality, and transport safety.

## Goals and Results

### Goals for Fiscal 2013

- Effectively implement the PDCA (plan-do-check-act) cycle as part of RC activities, through the Responsible Care Committee (RC Committee) and various other committees

### Fiscal 2013 Results and Assessment

#### Level achieved: A

- Held three RC Committee meetings over the course of the year (to formulate plans, monitor progress and evaluate results)

### Priorities for Fiscal 2014

- Effectively implement the PDCA cycle as part of RC activities, through the RC Committee and various other committees

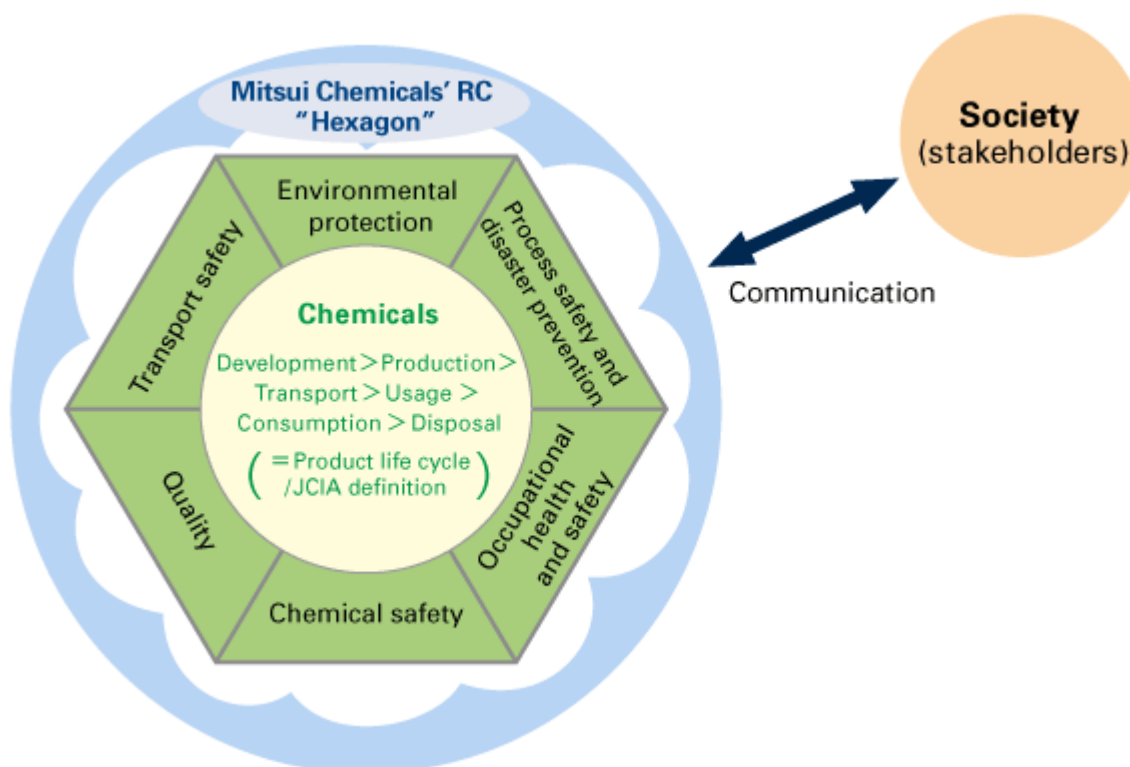
※ Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more and less than 95%, C: less than 70%

## RC initiatives

Mitsui Chemicals engages in activities and promotes communication with society in six functional areas in accordance with our Basic Policy Regarding the Environment, Safety, Occupational Health and Quality. Referred to as our RC “hexagon,” these areas are environmental protection, process safety and disaster prevention, occupational health and safety, chemical safety, quality, and transport safety.

With the introduction of tighter environmental and chemical safety regulations all over the world in recent years, it is becoming increasingly important to implement chemical risk management as part of our operations. With that in mind, since fiscal 2011 we have continued to reinforce our chemical management systems and mechanisms so that they extend beyond the bounds of chemical safety.

### Relationship between our functional RC “hexagon” and society



## RC Promotion System

Our Responsible Care Committee (RC Committee) meets on a regular basis in order to map out RC-related policies, strategies and plans, evaluate our performance, and review our RC systems. Reports outlining discussions and topics covered at each meeting are then submitted to the Management Committee, to get executives more involved in responsible care activities.

The RC Committee consists of the following members

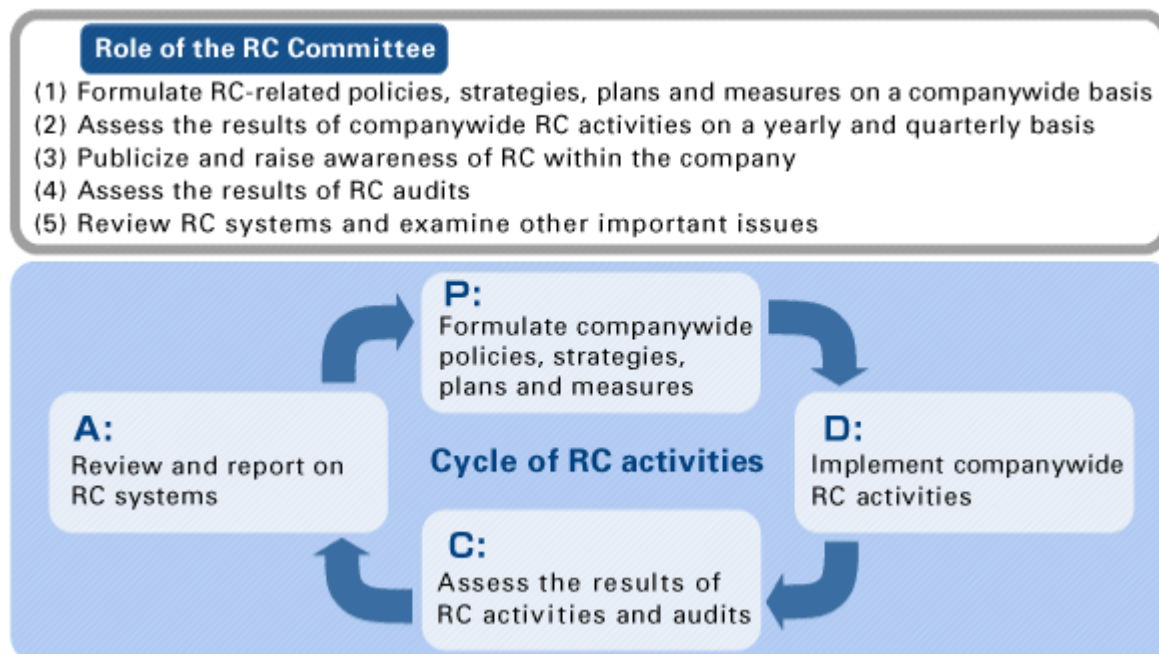
- Chair: Board Director in charge of the RC Committee
- Vice Chair: Executive of the Production & Technology Center / Board Director in charge of the Safety & Environment Division
- Permanent members: Managers in charge of RC functions, managers in charge of individual divisions, etc.
- Secretariat: RC & Quality Assurance Division

We exchange information between departments in charge of RC functions in order to carry out RC activities more effectively. We also appoint a member of staff in charge of RC in each division and department, and organize regular



meetings so that we can roll out RC-related policies and strategies on a companywide basis. Specific RC activities are carried out by individual departments within each works or division.

#### Operational flow of RC activities



## ▶ Goals and Results

## ▶ RC initiatives

## ▼ Environmental Safety, Occupational Health, and Quality Audits

## Environmental Safety, Occupational Health, and Quality Audits

We conduct environmental safety (environmental preservation, process safety, disaster prevention, chemical safety, occupational safety), occupational health and quality audits every year, in order to objectively evaluate the effective implementation of responsible care (RC) activities at our works, factories, business divisions, laboratories and affiliates all over the world, and to provide guidance. Audits are conducted in line with specific procedures, which involve the head of the RC & Quality Assurance Division and industrial physicians, and focus particularly on monitoring progress with key challenges set out in our annual plans and following up on improvements recommended during the previous year's audit.

Worldwide affiliates and subsidiaries eligible for RC support are audited on a regular basis in conjunction with the supervising division at the relevant company. In addition to ascertaining the current status of RC activities and providing guidance, audits are also aimed at improving the overall standard of RC activities throughout the Mitsui Chemicals Group. We make every effort to carry out audits as effectively as possible, and determine the frequency of audits and key criteria carefully, taking into account factors such as the level of environmental, safety, health and quality management at each subsidiary or affiliate.

Audits conducted in fiscal 2013

Environmental safety audits: Conducted at five domestic works, branch factories or laboratories, and 37 subsidiaries and affiliates worldwide (48 sites)

Occupational health audits: Conducted at three domestic works, branch factories or laboratories, and five domestic affiliates (five sites)

Quality audits: Conducted at three domestic works or branch factories, nine business divisions, and 14 subsidiaries and affiliates worldwide (15 sites)

## International certifications and fiscal 2013 RC audits at subsidiaries and affiliates

Country	Company	International certifications				Fiscal 2013 audits		
		ISO9001	ISO14001	OHSAS 18001	Others	Environ ment Safety	Occupation Health	Quality
	Mitsui Chemicals, Inc. (Kashima Works)	○	○	○		■	■	■
	Mitsui Chemicals, Inc. (Ichihara Works)	○	○	○		■	—	—
	Mitsui Chemicals, Inc. (Mobara Branch Factory)	○	○	○		■	■	■
	Mitsui Chemicals, Inc. (Nagoya Works)	○	○	○		■	■	■
	Mitsui Chemicals, Inc. (Osaka Works)	○	○	○		■	■	■
	Mitsui Chemicals, Inc. (Iwakuni-Ohtake Works)	○	○	○		■	—	—

Japan	Mitsui Chemicals, Inc. (Mobara Research & Development Center)					■	■	—
	Utsunomiya Chemical Industry Co., Ltd. (Utsunomiya Works)	○				□	—	—
	Utsunomiya Chemical Industry Co., Ltd. (Shinshiro Factory)	○				□	—	—
	Utsunomiya Chemical Industry Co., Ltd. (Funaoka Factory)	○				■	■	—
	Utsunomiya Chemical Industry Co., Ltd. (Tosu Factory)	○				■	—	—
	MC Industries, Ltd. (Shimizu Factory)	○	○	○		■	■	■
	MC Industries, Ltd. (Kaibara Factory)	○	○			□	—	■
	Saxin Corporation	○	○	○		■	—	—
	Sun Alloys Co., Ltd.	○				■	—	■
	Sun Medical Co., Ltd.	○				□	—	—
	Sunrex Industry Co., Ltd.	○	○			■	—	■
	Japan Composite Co., Ltd.	○	○			■	■	■
	Tohoku Uloid Industry Co., Ltd.	○				□	—	—
	Toyo Beauty Supply Corporation				ISO13485	□	—	—
	Hokkaido Mitsui Chemicals, Inc.	○				■	■	■
	Prime Polymer Co., Ltd. (Head Office)					—	—	■
	Mitsui Chemicals Industrial Products, Ltd. (Saitama Office)	○	○			□	—	—
	Mitsui Chemicals Tohcello, Inc.	○	○			□	—	—

	(Anjo Factory)							
	Mitsui Chemicals Tohcello, Inc. (Ibaraki Factory)	○	○			□	—	—
	Mitsui Chemicals Tohcello, Inc. (Koga Factory)	○	○			■	■	—
	Mitsui Chemicals Tohcello, Inc. (Katsuta Factory)	○	○			■	—	—
	Mitsui Chemicals Tohcello, Inc. (Hamamatsu Factory)	○	○			■	—	—
	Yamamoto Chemicals, Inc.	○	○			■	—	—
USA	Advanced Composites, Inc. Ohio	○	○	○		■	—	—
	Advanced Composites, Inc. Tennessee	○	○	○		□	—	—
	Anderson Development Company	○	○	○		■	—	—
	ESCO COMPANY, LLC	○	SOCMA Chem Stewards	SOCMA Chem Stewards		■	—	—
	SDC TECHNOLOGIES INC.					□	—	—
Mexico	Advanced Composites Mexicana, S.A.de C.V.	○	○		TS16949	□	—	—
Europe	Mitsui Chemicals Europe GmbH					—	—	■
Indonesia	P.T. Amoco Mitsui PTA Indonesia	○	○	○		□	—	—
	P.T. Cosmo Polyurethane Indonesia	○	○			□	—	—
	P.T. PETNESIA RESINDO	○	○	○		□	—	—
Thailand	GRAND SIAM COMPOSITES CO., LTD.	○	○	○	TS16949	□	—	—
	Mitsui Hygiene Materials (Thailand) Co., Ltd.	○	○	○		□	—	—
	SIAM MITSUI PTA CO., LTD.	○	○	○		□	—	■

	THAI MITSUI SPECIALTY CHEMICALS CO., LTD.	○	○	○		■	—	—
	Thai PET Resin Co., LTD.	○	○			□	—	■
Malaysia	COSMO POLYURETHANE MALAYSIA SDN. BHD.	○	○			■	—	■
	Cosmo Scientex (M) Sdn. Bhd.	○	○	○		□	—	■
Singapore	MITSUI CHEMICALS ASIA PACIFIC,LTD TECHNICAL CENTRE					■	—	—
	MITSUI CHEMICALS SINGAPORE R&D CENTRE PTE,LTD.					■	—	—
	MITSUI ELASTOMERS SINGAPORE PTE. LTD.	○	○	○		□	—	■
	MITSUI PHENOLS SINGAPORE PTE. LTD.	○	○	○		■	—	■
India	MITSUI PRIME ADVANCED COMPOSITES India PVT. Ltd.	○	○			□	—	—
China	Foshan Mitsui Chemicals Polyurethanes Co., LTD. 佛山三井化學聚氨 有限公司					■	—	■
	Mitsui Advanced Composites (Zhongshan) Co., LTD. 三井化学複合塑料 (中山) 有限公司	○	○			□	—	—
	MITSUI CHEMICALS SHANGHAI CO.,LTD. TECHNICAL XENTRE					■	—	—
	Tianjin Cosmo Polyurethane Co., Ltd. 天津天寰聚氨有限公司 (蘇州)	○	○			■	—	—



	Tianjin Cosmo Polyurethane Co., Ltd. 天津天寰聚氨有限公司（天津）	○	○			□	—	—
	Zhang Jia Gang Free Trade Zone Mitsui Linkupon Advanced Material, Inc. 張家港保稅區三井允拓複合材料有限公司	○	○		TS16949	□	—	—

## ▼ Goals and Results

## ▶ Creating Safe and Secure Workplaces

## ▶ Employee Health

**We put safety first in everything that we do. Here at the Mitsui Chemicals Group, we implement a range of companywide initiatives aimed at preventing accidents and occupational injuries.**

### Goals and Results

#### Goals for Fiscal 2013

- Take steps to prevent human errors
- Prevent injuries specific to the plant type (molding, chemical process)

#### Fiscal 2013 Goals and Results

##### Level achieved: B

- Stepped up KY (*kiken yochi*: hazard prediction) activities
- Continued with occupational accident prevention campaign
- Prevented injuries specific to the plant type

##### Level achieved: C

- Failed to achieve frequency target for occupational injuries, at 0.49 (target: 0.15 or less).

#### Priorities for Fiscal 2014

- Take steps to prevent human errors
- Prevent injuries specific to the plant type (molding, chemical process)

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more and less than 95%, C: less than 70%

## ► Goals and Results

## ▼ Creating Safe and Secure Workplaces

## ► Employee Health

## Creating Safe and Secure Workplaces

We have earmarked eliminating accidents and occupational injuries throughout the Mitsui Chemicals Group as one of our top priorities under our Fiscal 2012 Mid-Term Business Plan (2011-13), and are working to achieve that goal on a groupwide scale.

## Occupational injuries

In fiscal 2013, we focused on safety activities at our own works and factories, and at our affiliates, revolving primarily around measures to improve the standard of hazard prediction (KY, *kiken yochi*) activities.

The results of our hard work during fiscal 2013 were as follows.

## Occupational accidents and injuries in the Mitsui Chemicals Group

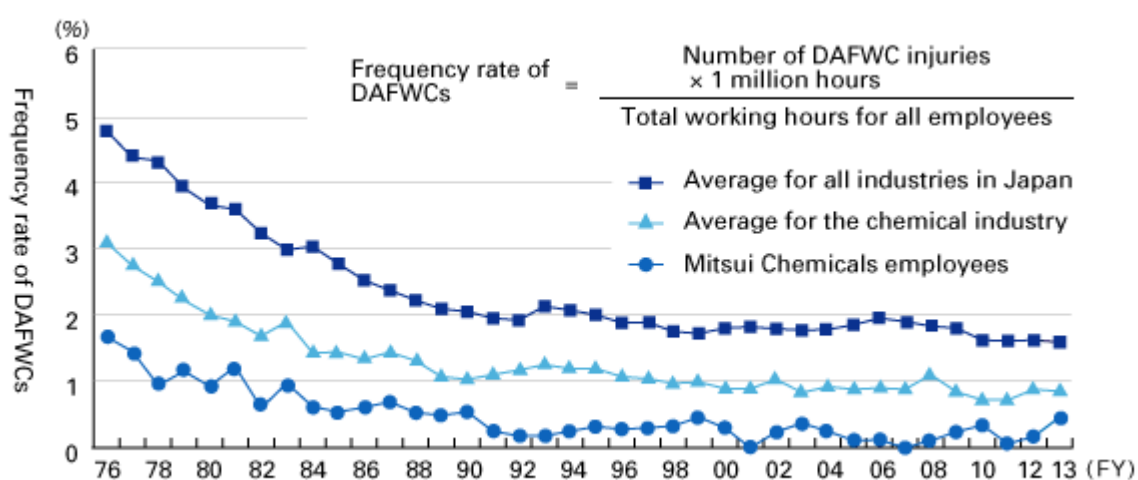
Item	Target	Fiscal 2011	Fiscal 2012	Fiscal 2013
DAFWCs	0.15 or less	0.28	0.22	0.47
DAFWC + RWTC + MTCs	1.8 or less	2.1	1.9	2.2

## Summary of results

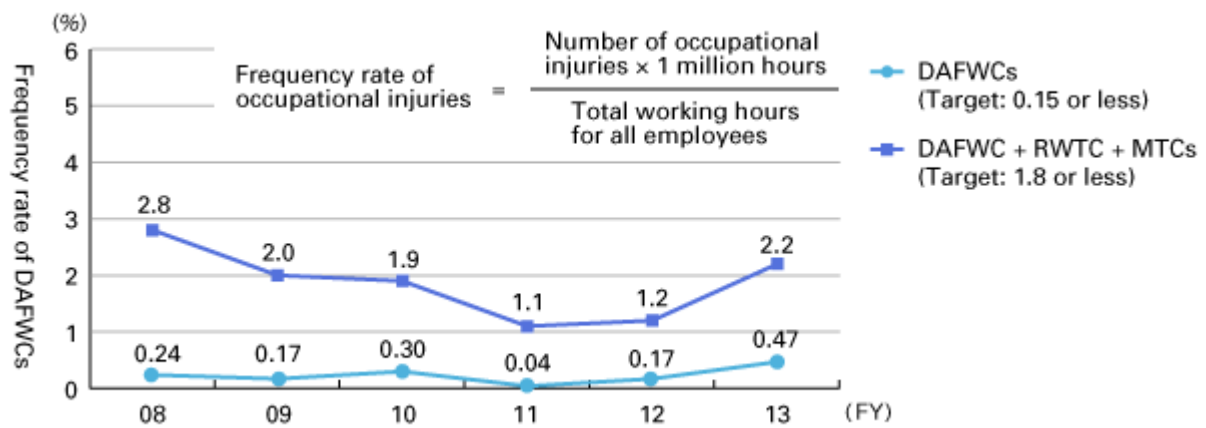
Compared to 0.22 in fiscal 2012, the frequency rate of DAFWCs deteriorated to 0.47 in fiscal 2013.

Although we were unable to achieve our world-leading target of 0.15, we have nonetheless been making steady progress since the second half of fiscal 2013.

## Frequency of DAFWCs (All industries/chemical industry/Mitsui Chemicals)



## Frequency of occupational Injuries (Mitsui Chemicals &lt;employees + operation subcontractors&gt;)



## Eliminating occupational injuries

Occupational safety at Mitsui Chemicals depends on day-to-day safety activities at each of our sites.

In the spirit of the Japan Industrial Safety & Health Association's Zero Accident Campaign, we implement safety activities based on an effective PDCA (plan, do, check, act) cycle, focusing particularly on the following three elements.

1. **Philosophy**, as set out by top management
2. **Technique**, for hazard prediction (KY, *Kiken Yochi*) activities, risk assessments, etc.
3. **Implementation**, involving all employees

We have set out the following top priorities as part of our safety activities for fiscal 2014, in accordance with our new Mid-Term Business Plan (fiscal 2013 onwards).

1. Take steps to prevent human errors
2. Prevent injuries specific to the plant type (molding, chemical process)

We intend to prevent human error first of all through hands-on training and other educational initiatives, focusing particularly on reinforcing our existing hazard prediction (KY) activities.

We intend to prevent injuries specific to the plant type through safety initiatives targeting the different plant types, focusing on “caught on or between” injuries at molding-type plants and prevention of contact with heat/chemicals at chemical process-type plants.

[▶ Goals and Results](#)[▶ Creating Safe and Secure Workplaces](#)[▼ Employee Health](#)

## Employee Health

Here at the Mitsui Chemicals Group, we provide our employees with the support they need to take good care of their health, via industrial physicians, nurses and other healthcare professionals.

We believe that healthy employees make for a healthy company. Based on that philosophy, we assign full-time industrial physicians, nurses and healthcare managers to healthcare sections at our Head Office, Sodegaura Center and all five of our works. We also assign part-time industrial physicians, nurses and other healthcare professionals to our smaller plants and to major plants operated by our affiliates, in an effort to improve the health of all group employees.

Once again in fiscal 2013, we continued to focus on preventing mental health conditions and lifestyle-related diseases, and on reducing hygiene risks. In particular, we made a concerted effort to tackle metabolic syndrome and mental health issues in young employees, and to reduce health and hygiene risks for employees working overseas.

[Employee Health](#)

## ▼ Goals and Results

### ▶ Process safety and disaster prevention training

### ▶ Safety Assessments

### ▶ Process Safety and Disaster Prevention Drills

### ▶ Investments in health, safety and disaster prevention

Based on our management policy of putting safety first in everything that we do, we have continued to implement a range of safety activities throughout the Mitsui Chemicals Group. Despite our best efforts however, an explosion and fire occurred at our Iwakuni-Ohtake Works and claimed the lives of one of our dear colleagues. As well as those directly involved in the accident, this caused considerable inconvenience and distress for a great many people, not least members of the local community.

We are determined to prevent a repeat of any tragic accidents like this in the future, and are making every possible effort to reinforce preventive measures and safety management procedures.

## Goals and Results

### Goals for Fiscal 2013

- Reinforce measures to prevent leaks
  - Isolate equipment susceptible to leaks and reinforce leak prevention measures
  - Implement equipment measures through cooperation between the production and maintenance departments
- Strengthen process safety technology
  - Upgrade hazard and operability (HAZOP\*<sup>1</sup>) systems
  - Look into measures to reinforce process safety regulations
  - Provide support for process safety activities at affiliates (domestic and overseas)
- Establish a workplace culture based on compliance with the rules
  - Encourage a culture of looking out for one another, in order to prevent human error

### Fiscal 2013 Goals and Results

#### Level achieved: A

- Trained and assigned HAZOP\*<sup>1</sup> leaders to works and factories (10 sites)

#### Level achieved: B

- Provided domestic affiliates with technical guidance on process safety and disaster prevention technology

#### Level achieved: C

- Abnormal phenomena and accidents occurred  
(Fire and explosion at Iwakuni-Ohtake Works resin plant)

### Priorities for Fiscal 2014

- Implement fundamental safety initiatives
  1. Enable line managers to focus on the shop floor and manage frontline operations effectively
    - (1) Reduce workload for line managers
    - (2) Train reliable line managers
  2. Improve technical capabilities and ensure that skills are passed down
    - (3) Train engineers with a keen appreciation of frontline operations
    - (4) Review, improve, share and promote attitudes to technology and safety



(5) Review technical assessment systems and frameworks

3. Reinforce safety—first approach, encourage professionalism and ensure that employees feel a sense of achievement in their work

(6) Reinforce authorities and responsibilities of the Safety & Environment Division, and strengthen specialist safety technology departments

(7) Provide attractive senior positions that employees will aspire towards

(8) Find ways to give employees a sense of achievement based on their work and safety performance

(9) Reinforce the concept of putting safety first in everything that we do

(10) Encourage and reinforce a sense of professionalism

(11) Improve teamwork and communication in the workplace

- Roll out accident prevention measures at resorcin plant to other facilities
  - Effectively implement HAZOP and emergency shutdown safety checks, in response to the accident at our resorcin plant
  - Gather information on risks associated with materials, and reaffirm training and safety measures
- Continue to reinforce measures to prevent leaks
  - Isolate equipment susceptible to leaks and reinforce leak prevention measures
  - Implement equipment measures through cooperation between production and maintenance departments
- Reinforce technical process safety capabilities
  - Provide support for process safety activities at affiliates (domestic and overseas)

\*1 HAZOP (hazard and operability study) :

Method of identifying all risks inherent within a plant and systematically evaluating safety measures to ensure that they are adequate

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more and less than 95%, C: less than 70%

## ▶ Goals and Results

## ▼ Process safety and disaster prevention training

## ▶ Safety Assessments

## ▶ Process Safety and Disaster Prevention Drills

## ▶ Investments in health, safety and disaster prevention

### Process safety and disaster prevention training

#### Engineer Training

Established with the aim of training skilled operators capable of safely handling operations and equipment on the manufacturing frontline, our Technical Training Center features a whole host of practical training facilities, including training plants and equipment simulating explosions, fires, exposure to hazardous liquids, slips and falls.

Practical training is a key step towards effectively transferring skills from experienced operators, instilling a high level of safety awareness and developing human resources who are capable of resolving problems for themselves, based on a “know-why” approach. As part of their training in process safety and disaster prevention, employees learn just how frightening accidents can be and how to prevent them, through first-hand experiences such as igniting flammable gas using static electricity and causing dust explosions.

The center provides training for a wide range of trainees, including operators and members of technical staff responsible for small- and medium-scale testing, and researchers, as well as plant operators.

We also provide structured process safety and disaster prevention training for operators at our affiliates, both in Japan and overseas, and will continue to systematically provide similar training throughout the group in the future. We are committed to training human resources that are highly sensitive to safety.

#### Practical Safety Training

As one of our fundamental safety initiatives, we provide training that is designed to give technical members of staff a greater appreciation of frontline operations.

At our Technical Training Center, we provided technical staff working in manufacturing engineering with practical safety training (in case of getting caught on or in machinery, falling, slipping, etc.) and practical training operating a methanol distillation tower. Other training activities included a group discussion session on safety as a manufacturing engineer.

Operating the methanol distillation tower provided engineers with a wealth of invaluable experiences that they would not have access to on a day-to-day basis, covering everything from starting up the plant to shutting it down, and operating procedures in the event of shutdown.

During the group discussion session, participants reviewed the accident at our Iwakuni-Ohtake Works resorcinol plant, discussed effective methods of working as a manufacturing engineer, and confirmed what actions they need to take in the future to prevent similar accidents at their own plants in the future.

We are planning to extend practical training to all members of technical staff in the future, as well as manufacturing engineers, in an effort to improve and share technical capabilities.



Distillation tower control room



Distillation tower simulator



Preparing to operate the distillation tower



Utility procedures for the distillation tower

[▶ Goals and Results](#)[▶ Process safety and disaster prevention training](#)[▼ Safety Assessments](#)[▶ Process Safety and Disaster Prevention Drills](#)[▶ Investments in health, safety and disaster prevention](#)

## Safety Assessments

We use technical assessment systems as part of our research and development activities, or when expanding our facilities, to assess safety at every stage from initial research through to plant operations and to prevent accidents before they can happen. We require workers to consult a group of experts at our Process Technology Center when handling dangerous substances or reactions, particularly if there is a risk of fire or explosion, and carry out both chemical and process safety assessments.

### (1) Carrying out safety checks in relation to emergency shutdown (ESD) procedures

Following on from the accident at our resorcinol plant, in fiscal 2013 we have verified safety at our works and factories based on risks, safety perceptions and management procedures in the event of an ESD, raised awareness through training in plant safety measures, and organized ESD drills.

### (2) Improving the standard of equipment safety assessments through HAZOP\*1

Whenever we install new facilities, or expand or improve existing facilities, we carry out HAZOP studies in order to assess safety risks and identify plant hazards, and continue to regularly review the results thereafter.

In an effort to improve the standard of safety assessments even further, since fiscal 2010 we have standardized companywide HAZOP assessment methods and have been training HAZOP Leaders and assigning them to all works and factories (2-5 at each site) to act as HAZOP instructors.

In fiscal 2014, we are planning to organize HAZOP training at all of our works and factories, in order to instill standardized companywide HAZOP assessment methods and improve the standard of HAZOP assessments.



HAZOP training

\*1 HAZOP (hazard and operability study) :

Method of identifying all risks inherent within a plant and systematically evaluating safety measures to ensure that they are adequate

[▶ Goals and Results](#)[▶ Process safety and disaster prevention training](#)[▶ Safety Assessments](#)[▼ Process Safety and Disaster Prevention Drills](#)[▶ Investments in health, safety and disaster prevention](#)

## Process Safety and Disaster Prevention Drills

We are continually improving our in-house disaster prevention capabilities here at the Mitsui Chemicals Group. In addition to conducting disaster prevention drills, including emergency activities such as firefighting, call-outs and reporting, we also carry out initiatives such as organizing discussion sessions with municipal fire departments and participating in “firefighter for a day” programs. We formulate site-specific plans every year and conduct disaster prevention drills designed specifically for the operations carried out at each of our sites. We also organize full-scale comprehensive disaster prevention drills on a regular basis at each of our works, including joint training with municipal fire departments and volunteer firefighting units, and training involving the local police. We work with municipal fire departments and local companies meanwhile to organize joint disaster prevention drills as a form of reciprocal training between companies.

Based on lessons learnt from the accident at our Iwakuni-Ohtake Works resorcin plant, we have also introduced drills based on scenarios such as simultaneous accidents in multiple locations or problems with emergency shutdown procedures.

As part of our comprehensive disaster prevention drills, we invite members of local community associations to visit our works, to give them a better understanding of our process safety and disaster prevention activities.

We also designate evacuation facilities and conduct evacuation drills in case of an earthquake or tsunami.

We have set out a business continuity plan (BCP) and conduct drills in the event of a large-scale earthquake in the Tokyo metropolitan area, so that we can coordinate efforts between our Head Office in Tokyo and Osaka Works to confirm the safety of our employees and ascertain the level of damage to our works. Other activities include regularly training employees on how to report incidents between our Head Office and works via satellite phone.



Rescuing the injured as part of an emergency drill



Spraying water from an elevated water cannon as part of an emergency drill

▶ **Goals and Results**

▶ **Process safety and disaster prevention training**

▶ **Safety Assessments**

▶ **Process Safety and Disaster Prevention Drills**

▼ **Investments in health, safety and disaster prevention**

## Investments in health, safety and disaster prevention

We invested approximately ¥4.0 billion in health, safety and disaster prevention in fiscal 2013. This total was down on the previous year, as we continued with measures to prevent occupational accidents and improve working environments, including carrying out improvement to aging facilities and installing handrails to prevent slips and falls, and made clear progress.

Based on lessons learnt from the accident at our Iwakuni-Ohtake Works resorcin plant however, we intend to reinforce steps to prevent explosions, fires and leaks in the future, as we continue to implement effective health, safety and disaster prevention measures with the aim of preventing a similar accident.

### Breakdown of investments in health, safety and disaster prevention

(Unit: Million yen)

	Description	FY2009	FY2010	FY2011	FY2012	FY2013
1	Measures to prevent explosions, fires and leaks	1,268	1,032	1,860	1,858	1,521
2	Improvements to aging facilities	398	702	1,672	1,644	1,218
3	Improvements to occupational safety and working environments	1,149	790	2,260	2,261	925
4	Measures in the event of an earthquake or other natural disaster	17	18	13	13	109
5	Other measures	290	80	286	256	181
	Total	3,122	2,622	6,091	6,032	3,954



## ▼ Goals and Results

## ▶ Preventing Global Warming

## ▶ Reducing Industrial Waste

## ▶ Substances Subject to the PRTR Act

## ▶ Preserving air quality

## ▶ Preserving water quality

## ▶ Biodiversity

## ▶ Environmental Accounting

## ▶ Input⇒Output

## ▶ Environmental Impact Assessment

## ▶ Handling Environmental Complaints

**Here at the Mitsui Chemicals Group, we make sure that all of our business activities are in harmony with the global environment.**

As a chemical company, we act to protect the environment in two ways: by reducing the environmental impact of our business activities and by appropriately managing chemical substances.

Specific initiatives include preventing global warming, saving energy, promoting the 3Rs in order to reduce the volume of industrial waste sent to landfill, and reducing the environmental impact of substances subject to the PRTR Act and volatile organic compounds (VOC).

We also publish environmental accounting figures and run eco-efficiency assessments in relation to our environmental impact and economic activities, in an effort to ascertain the impact of our activities and pave the way for sustainable development.

## Goals and Results

### Goals for Fiscal 2013

- Implement greenhouse gas reduction plans and develop innovative energy saving technologies: At least 60,000 tons
- Continue to implement plans aimed at minimizing industrial waste

### Fiscal 2013 Goals and Results

#### Level achieved: A

- Reduced greenhouse gas emissions by saving energy: Reduction of over 90,000 tons, compared to target of at least 60,000 tons
- Achieved industrial waste minimization targets at all domestic manufacturing sites Average percentage of industrial waste sent to landfill at overseas affiliates: 0.6%

### Priorities for Fiscal 2014

- Implement greenhouse gas reduction plans: Target: At least 40,000 tons
- Continue to implement plans aimed at minimizing industrial waste

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more and less than 95%, C: less than 70%

▶ Goals and Results

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## Preventing Global Warming

### Reducing greenhouse gas emissions

As part of the Mitsui Chemicals Group's Mid-Term Business Plan from fiscal 2012 onwards, we have set ourselves the target of reducing greenhouse gas emissions by 500,000 tons (compared to fiscal 1991, operating at full capacity) at six of our domestic manufacturing sites and 15 domestic consolidated subsidiaries by fiscal 2014. We intend to achieve this by promoting energy saving initiatives and by developing innovative processes and technologies. We are also aiming to expand our range of environmentally friendly products in order to help reduce greenhouse gas emissions throughout society.

Based on figures for fiscal 2012 and 2013, and projections for fiscal 2014, we expect to exceed our target of reducing emissions by 500,000 tons.

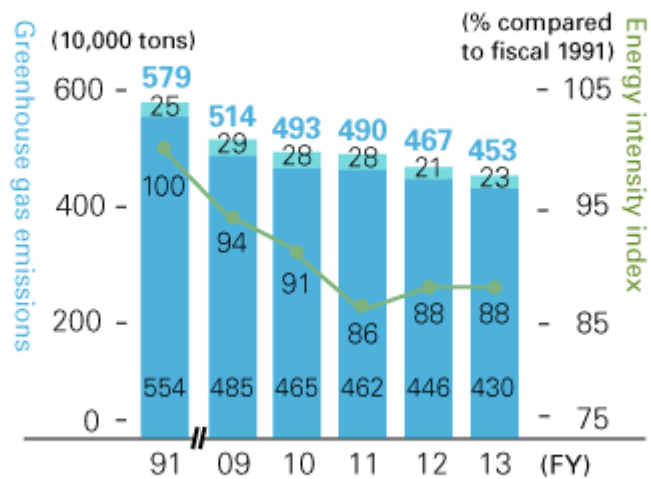
Having set ourselves the target of reducing greenhouse gas emissions by 60,000 tons in fiscal 2013, by saving energy and switching to alternative fuels, we actually achieved a reduction of 90,000 tons thanks to a series of small-scale projects, including switching fuels for industrial boilers, introducing innovative processes and optimizing operating conditions. We are aiming to reduce emissions by another 40,000 tons in fiscal 2014, through energy saving initiatives such as installing high efficiency turbines. In terms of volume, greenhouse gas emissions increased in fiscal 2013 due to a reduced power to CO2 coefficient. Taking into account factors such as the accident at our Iwakuni-Ohtake Works and a decline in operating rates at our ethylene and other large-scale plants however, as well as reductions in emissions through saving energy and switching to alternative fuels, we actually managed to reduce emissions by 140,000 tons year on year to 4.53 million tons. In an effort to reduce greenhouse gases throughout society meanwhile, we have signed up to one of the largest solar and wind power joint projects in Japan, in Tahara (Aichi prefecture). We are working to acquire new technical expertise unique to the field of "mega solar" energy, so that we can do our bit to promote renewable energy in the future.

▶ Special Feature 1: Tahara Solar-Wind™ Joint Project

### Greenhouse gas emissions and energy intensity index

## Greenhouse gas emissions and energy intensity index

■ Mitsui Chemicals ■ Off-site domestic consolidated subsidiaries  
 ● Energy intensity index (compared to fiscal 1991)



※ Data revised in fiscal 2011 in line with changes to the definition of production volume used to calculate our energy intensity index

▶ Goals and Results

▶ Preventing Global Warming

▼ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

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## Reducing Industrial Waste

Here at the Mitsui Chemicals Group, we have made a commitment to the minimization<sup>\*1</sup> of industrial waste at domestic manufacturing sites and all production sites operated by domestic and overseas consolidated subsidiaries by fiscal 2016, as one of the targets set out under our Grand Design.

Following on from fiscal 2012, we once again managed to successfully achieve minimization targets at all of our domestic manufacturing sites, including domestic affiliates in fiscal 2013.

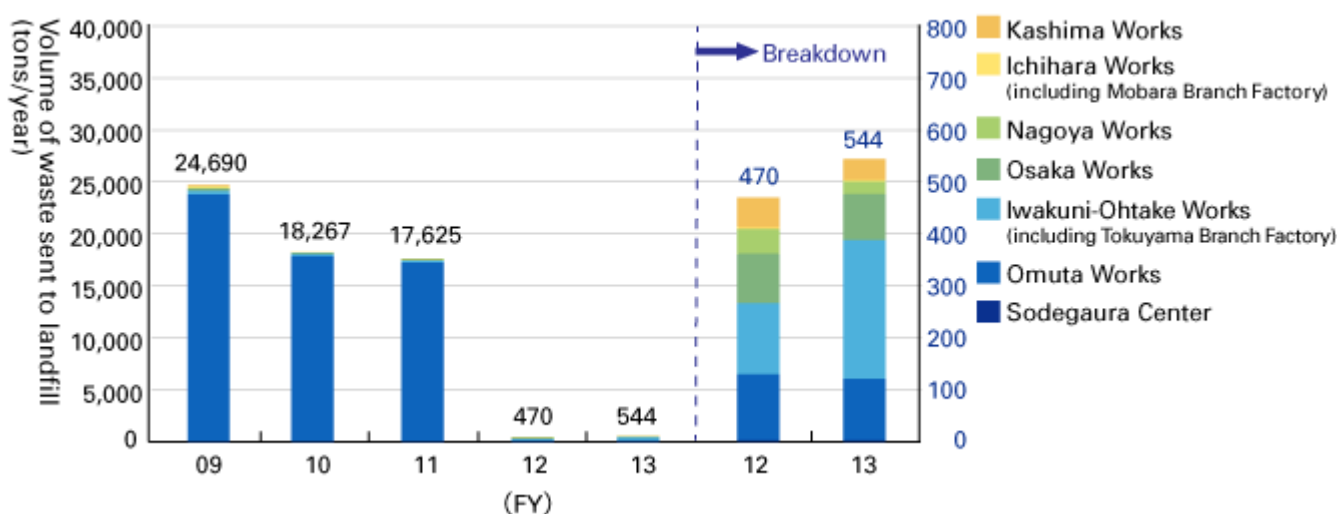
In the wake of the explosion and fire at our Iwakuni-Ohtake Works resorcin plant, we were concerned that the volume of landfill waste would increase as a result of the works producing more industrial waste. By working with waste management companies however, we were able to recycle and reduce enough waste to enable the works to achieve its minimization target.

With an average landfill rate for industrial waste at our overseas affiliates<sup>\*2</sup> of approximately 0.6%, we have now maintained a rate of 1% or less since fiscal 2010. In spite of the numerous challenges that we need to overcome to promote minimization at our overseas sites, with waste treatment regulations and industrial structures varying from one country to another, we are nonetheless committed to reducing and recycling waste at all of our companies in order to conserve resources. We will continue to work as a group to reduce landfill waste.

\*1 Minimization of industrial waste : Maintaining a landfill disposal rate of 1% or less of industrial waste generated

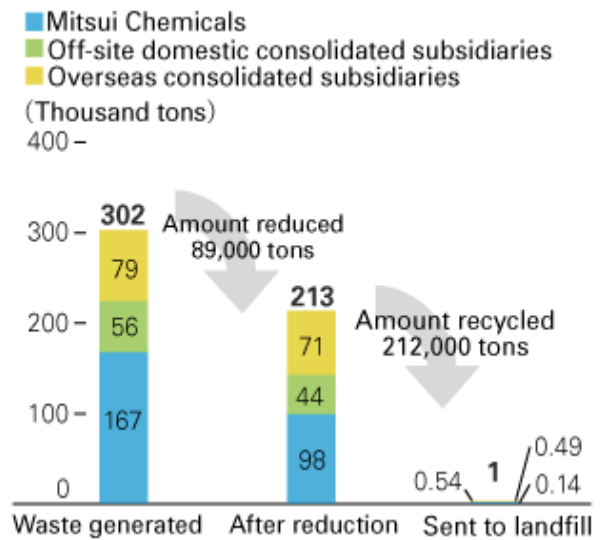
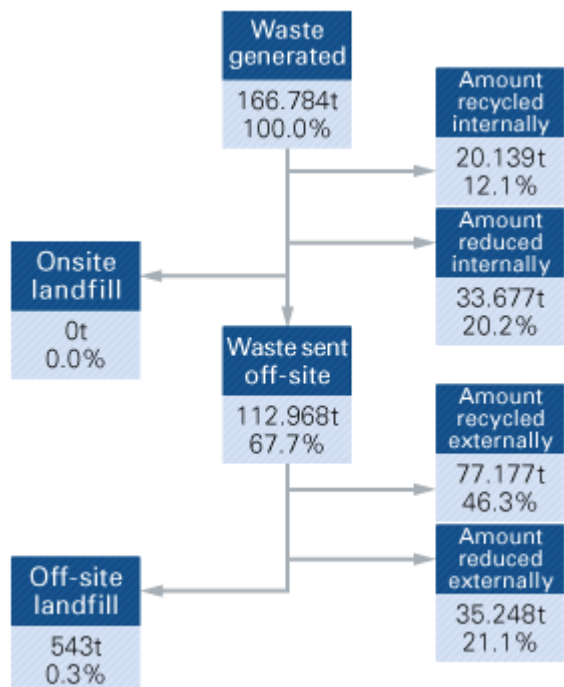
\*2 For statistical purposes, "domestic and overseas affiliates" refers to production sites operated by consolidated subsidiaries and companies eligible for RC support (23 in Japan, 21 overseas)

### Landfill disposal of industrial waste



The industrial waste process (Mitsui Chemicals)

The process of reducing industrial waste disposal



- \* Amount reduced internally: Amount reduced as a result of waste plastic incineration, waste acid neutralization, etc.
- \* Amount recycled: Includes waste plastic recycling and the reuse of waste oil as fuel
- \* Waste generated: Sludge (dry weight), waste plastics, soot and dust, etc.
- \* Any minor discrepancies in percentages are due to rounding.

▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▼ Substances Subject to the PRTR Act

▶ Preserving air quality

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## Substances Subject to the PRTR Act

In accordance with the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR<sup>\*1</sup> Act), we submit a report to the Japanese government each year declaring the amounts of designated substances produced or used by Mitsui Chemicals that were released into the environment or transferred elsewhere.

The number of designated substances that companies are required to declare was increased<sup>\*2</sup> in fiscal 2011 following revisions to the PRTR Act. In fiscal 2013, we therefore submitted our third report since the revised PRTR Act came into effect.

Although we managed to reduce overall emissions for fiscal 2013, this was due to a reduced operating rate at our Iwakuni-Ohtake Works following the explosion and fire.

As a result, total emissions fell from around the 1,700-ton mark to roughly 1,600 tons.

Although we expect emissions to start increasing again in fiscal 2014, we are determined to achieve further reductions in the future, as the required level of chemical management continues to increase.

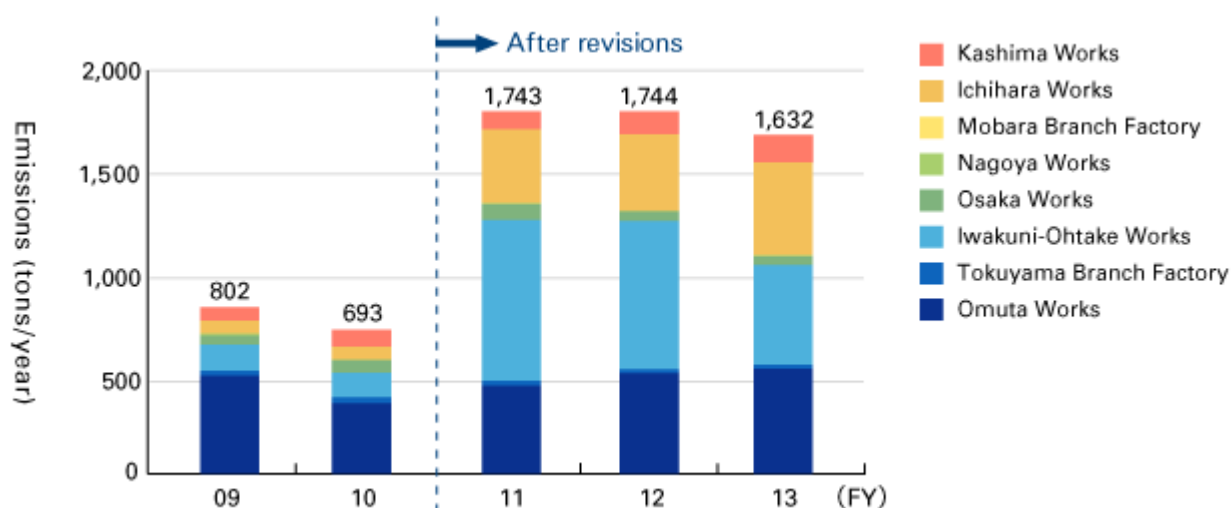
\*1 PRTR: Pollutant Release and Transfer Register

\*2 Class 1 Designated Chemical Substances that companies are required to report to the Japanese government under the PRTR Act

Before revisions: 354 substances → After revisions: 462 substances

(Specific Class 1 Designated Chemical Substances: 12 substances → 15 substances)

### Emissions of substances subject to the PRTR Act



### PRTR data for individual sites

We have calculated the top ten PRTR substances emitted by Mitsui Chemicals at each of our works (substances handled in annual volumes of at least one ton), and figures for dioxins.

▶ [PRTR data for individual sites \(PDF : 530KB\)](#)

# PRTR data for individual sites

Mitsui Chemicals CSR Report 2013

We have calculated the top ten PRTR substances emitted by Mitsui Chemicals at each of our works (substances handled in annual volumes of at least one ton), and figures for dioxins.

Unit: Tons/year (Dioxins: mg-TEQ/year)

## Kashima Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Dichlorobenzene	181	64.00	0.00	0.00	64.00	4.50	17.00
Toluene	300	60.00	0.00	0.00	60.00	0.00	0.00
Benzene	400	6.20	0.00	0.00	6.20	0.30	1.10
Chlorodifluoromethane	104	0.80	0.00	0.00	0.80	0.00	0.00
Tetrachloromethane	149	0.70	0.00	0.00	0.70	0.01	0.00
2,2-Dichloro-1,1,1-Trifluoroethane	164	0.40	0.00	0.00	0.40	0.00	0.00
Tolylene diisocyanate	298	0.13	0.00	0.00	0.13	0.00	3.60
Formaldehyde	411	0.13	0.00	0.00	0.13	46.00	0.00
Acetaldehyde	12	0.12	0.00	0.00	0.12	0.00	0.00
Toluidine	299	0.00	0.00	0.00	0.00	4.20	0.00
Dioxins	243	0.0023	0.0000	0.0000	0.0023	0.0057	0.0140

## Osaka Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Cumene (Isopropylbenzene)	83	14.48	0.00	0.00	14.48	0.00	0.54
Benzene	400	7.19	0.11	0.00	7.30	0.00	0.00
Chloroethylene	94	4.58	0.00	0.00	4.58	0.00	0.00
Zinc compounds (water-soluble)	1	0.00	3.45	0.00	3.45	0.00	8.64
Trichlorofluoromethane	288	1.83	0.00	0.00	1.83	0.00	0.00
Toluene	300	1.55	0.00	0.00	1.55	0.00	1.62
Acrylonitrile	9	1.50	0.00	0.00	1.51	0.00	70.92
Methyl methacrylate	420	1.38	0.00	0.00	1.38	0.00	0.00
Toluene	300	1.32	0.01	0.00	1.34	0.00	0.00
1,4-dioxane	150	1.23	0.06	0.00	1.30	0.00	0.00
Dioxins	243	0.0000	0.1100	0.0000	0.1100	0.0000	0.0960

## Ichihara Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
N-hexane	392	403.65	0.39	0.00	404.04	0.00	0.00
Toluene	300	12.41	0.01	0.00	12.41	0.00	0.00
Cumene (Isopropylbenzene)	83	10.26	0.01	0.00	10.27	0.00	0.00
Xylene	80	6.55	0.01	0.00	6.56	0.00	0.00
Boron compound	405	0.00	4.95	0.00	4.95	0.00	0.00
Ethylbenzene	53	4.37	0.00	0.00	4.37	0.00	0.00
Epichlorohydrin	65	1.52	0.00	0.00	1.52	0.00	0.00
Benzene	400	1.29	0.01	0.00	1.30	0.00	0.00
Zinc compounds (water-soluble)	1	0.00	1.10	0.00	1.10	0.00	0.25
Phenol	349	0.38	0.16	0.00	0.54	0.00	0.00
Dioxins	243	0.1410	0.1430	0.0000	0.2840	0.0000	0.0800

## Iwakuni-Ohtake Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
N-hexane	392	434.46	0.00	0.00	434.46	0.00	0.00
Xylene	80	18.71	0.00	0.00	18.71	0.00	0.00
Toluene	300	8.81	0.01	0.00	8.82	0.00	0.00
Bromomethane (Methyl bromide)	386	5.56	0.00	0.00	5.56	0.00	0.00
1,4-dioxane	150	0.00	5.16	0.00	5.16	0.00	0.00
Cumene (Isopropylbenzene)	83	2.20	0.00	0.00	2.20	0.00	0.00
Benzene	400	2.19	0.00	0.00	2.19	0.00	0.00
Diethylene glycol monomethyl ether	58	0.68	0.00	0.00	0.68	0.00	1.75
Acetaldehyde	12	0.61	0.00	0.00	0.61	0.00	0.00
Bromine	234	0.40	0.00	0.00	0.40	0.00	0.00
Dioxins	243	0.0000	0.2100	0.0000	0.2100	0.0000	0.0460

## Mobara Branch Factory

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Styrene	240	0.47	0.00	0.00	0.47	0.00	30.56
Methyl methacrylate	420	0.14	0.00	0.00	0.14	0.00	8.76
Butyl acrylate	7	0.09	0.00	0.00	0.09	0.00	1.69
Xylene	80	0.07	0.00	0.00	0.07	0.00	9.91
Acrylic acid and salts	4	0.04	0.00	0.00	0.04	0.00	0.11
Toluene	300	0.01	0.00	0.00	0.01	0.00	10.16
Butyl methacrylate	419	0.01	0.00	0.00	0.01	0.00	1.03
Ethyl acrylate	3	0.00	0.00	0.00	0.00	0.00	2.69
Phthalic anhydride	413	0.00	0.00	0.00	0.00	0.00	7.73
Maleic anhydride	414	0.00	0.00	0.00	0.00	0.00	5.74

## Tokuyama Branch Factory

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
1,2-Epoxypropane	68	19.71	0.00	0.00	19.71	0.00	0.00
Ethylene oxide	56	0.21	0.00	0.00	0.21	0.00	0.00
Ethylenediamine	59	0.03	0.00	0.00	0.03	0.00	0.02
Acrylonitrile	9	0.02	0.00	0.00	0.02	0.00	15.11
Phthalic anhydride	413	0.00	0.00	0.00	0.00	0.00	0.02
Styrene	240	0.00	0.00	0.00	0.00	0.00	9.72
Toluenediamine	301	0.00	0.00	0.00	0.00	0.00	0.01
2,2'-Azobisisobutyronitrile	16	0.00	0.00	0.00	0.00	0.00	0.03
Terephthalic acid	270	0.00	0.00	0.00	0.00	0.00	0.01

## Nagoya Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
1,2-Epoxypropane	68	1.48	0.04	0.00	1.52	0.00	0.25
Styrene	240	0.29	0.00	0.00	0.29	0.00	0.04
Toluene	300	0.24	0.00	0.00	0.24	0.00	37.83
Formaldehyde	411	0.18	0.00	0.00	0.18	0.00	0.00
Ethylene oxide	56	0.17	0.00	0.00	0.17	0.00	0.04
Methyl acrylate	8	0.07	0.00	0.00	0.07	0.00	1.28
N,N-Dimethylacetamide	213	0.03	0.00	0.00	0.03	0.00	34.10
Phenol	349	0.02	0.00	0.00	0.02	0.00	68.54
Acrylonitrile	9	0.01	0.00	0.00	0.01	0.00	1.37
Butyl acrylate	7	0.00	0.00	0.00	0.00	0.00	0.00

## Omuta Works

Substance	Ordinance designation number	Emitted				Transferred	
		Air	Water	Soil	Total	Sewage	Off-site
Toluene	300	407.82	1.41	0.00	409.24	0.00	363.14
Chlorobenzene	125	44.88	0.00	0.00	44.88	0.00	3.28
Dichlorobenzene	181	17.37	0.21	0.00	17.57	0.00	300.46
Formaldehyde	411	0.00	14.63	0.00	14.63	0.00	0.30
Epichlorohydrin	65	4.80	0.00	0.00	4.80	0.00	0.00
N,N-Dimethylformamide	232	0.14	4.46	0.00	4.60	0.00	21.48
Phenol	349	1.72	0.00	0.00	1.72	0.00	0.00
Nitrobenzene	316	1.90	0.01	0.00	1.91	0.00	20.55
Tolylene diisocyanate	298	1.00	0.00	0.00	1.00	0.00	0.00
Acrylonitrile	9	0.47	0.22	0.00	0.68	0.00	2.94
Dioxins	243	0.0147	17.7580	0.0000	17.7727	0.0000	0.0000

Errors in the emissions data (air) shown on this page have been corrected.



▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

▼ Preserving air quality

▶ Preserving water quality

▶ Biodiversity

▶ Environmental Accounting

▶ Input⇒Output

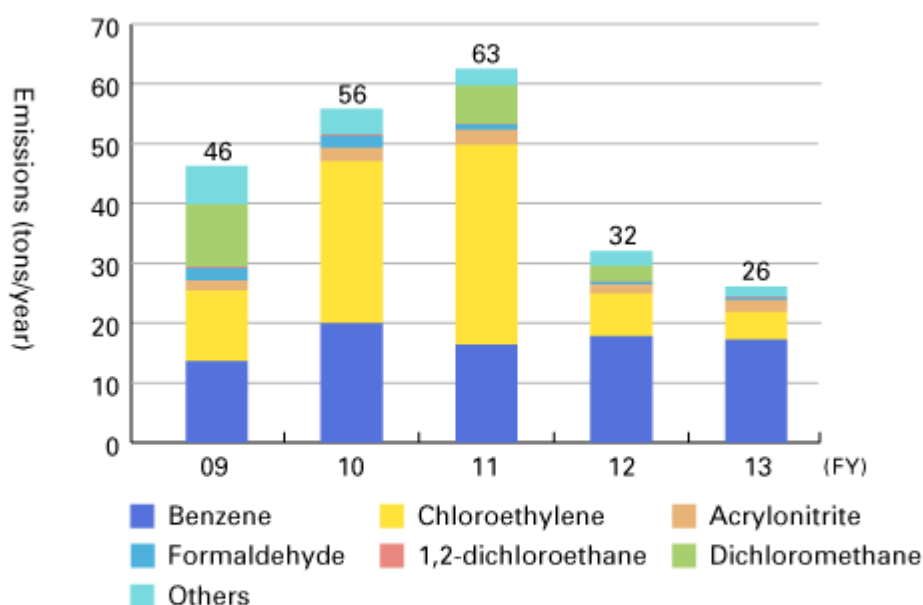
▶ Environmental Impact Assessment

▶ Handling Environmental Complaints

## Preserving air quality

Of the hazardous air pollutants specified under the Air Pollution Control Act, we are particularly focused on reducing emissions of priority substances that pose a significant health risk. Our emissions have remained largely unchanged in recent years, mainly due to substantial reductions made during the early part of the 2000s.

### Emissions of hazardous air pollutants



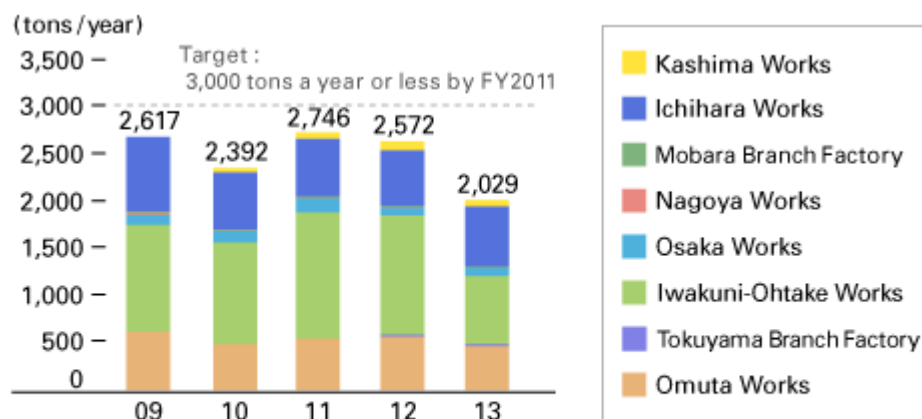
※ Previous emissions figures:

771 tons/year (FY1996), 445 tons/year (FY2001), 110 tons/year (FY2006)

※ Emissions were lower in fiscal 2012 and 2013 due to the fact

that tanks were not opened as part of statutory inspections at our Osaka Works.

### Volatile Organic Compounds (VOC) emissions

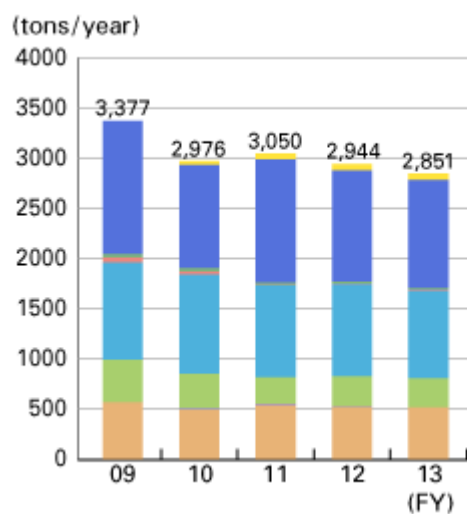


◆ VOC emissions in FY2001: 8,523 tons

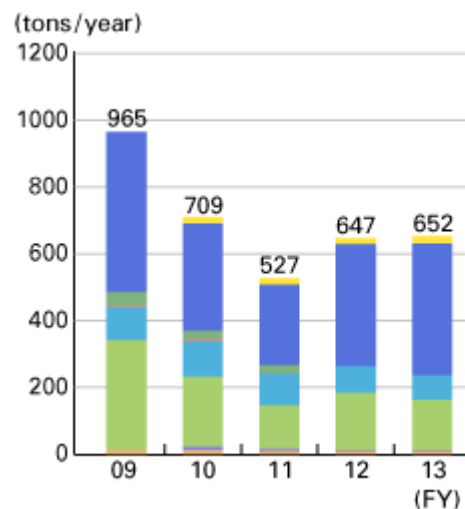
◆ Government target (30% reduction compared to FY2001 by FY2011): 5,966 tons or less

◆ Mitsui Chemicals target (emissions in FY2011): 3,000 tons or less

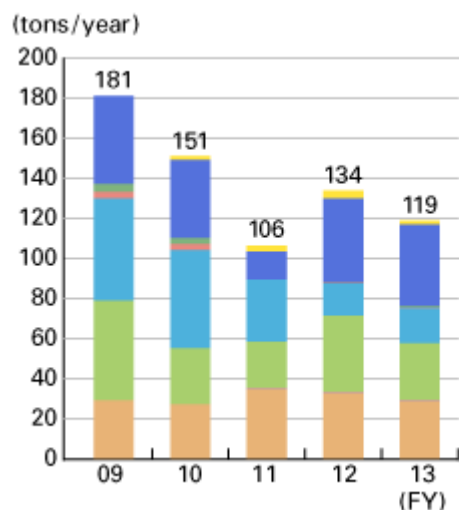
## NOx emissions



## SOx emissions



## Soot and dust emissions



▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

▶ Preserving air quality

▼ Preserving water quality

▶ Biodiversity

▶ Environmental Accounting

▶ Input⇒Output

▶ Environmental Impact Assessment

▶ Handling Environmental Complaints

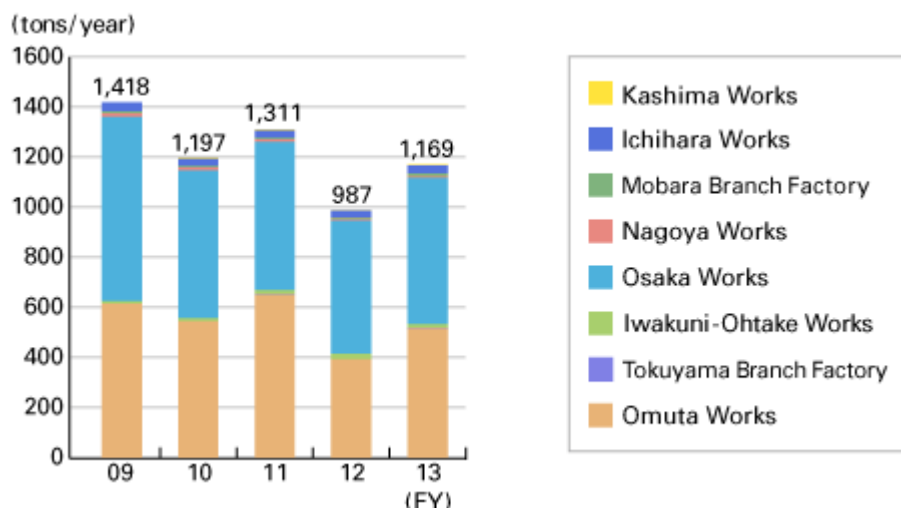
## Preserving water quality

We are committed to reducing emissions of water contaminants such as chemical oxygen demand (COD), nitrogen and phosphorus, to preserve water quality.

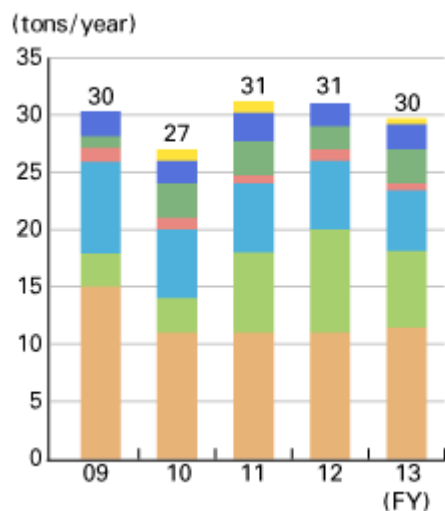
Emissions at all of our domestic manufacturing facilities are significantly lower than levels required by law or other legislation.

Although emissions from our Iwakuni-Ohtake Works fell in fiscal 2013, due to an explosion and fire at the works, our overall emissions for all domestic manufacturing facilities remained largely unchanged.

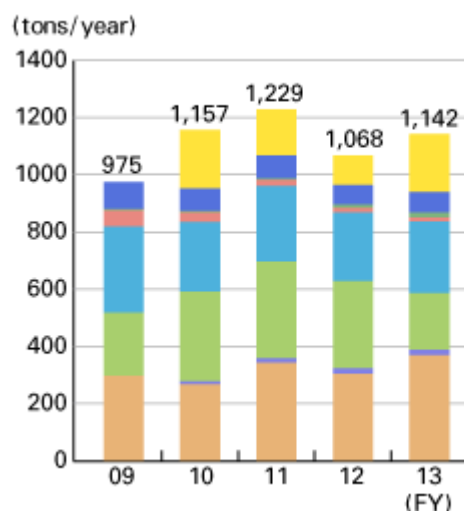
### Total nitrogen emissions

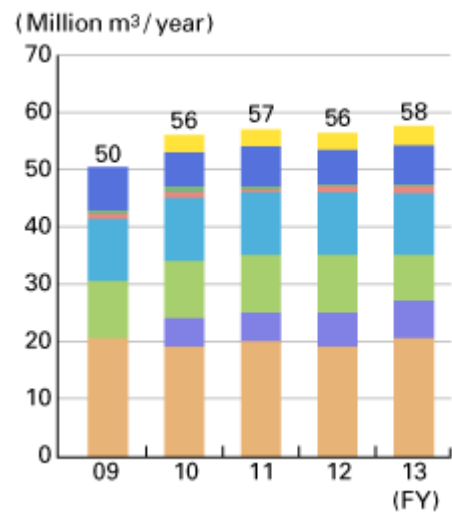
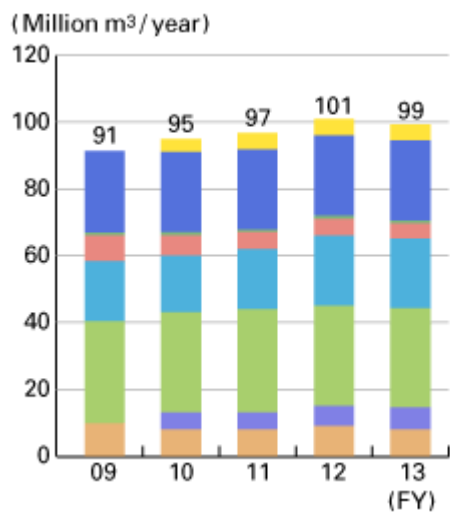


### Total phosphorous emissions



### COD emissions





▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

▶ Preserving air quality

▶ Preserving water quality

▼ Biodiversity

▶ Environmental Accounting

▶ Input⇒Output

▶ Environmental Impact Assessment

▶ Handling Environmental Complaints

## Biodiversity

On January 22, 2010, we signed up to the Japan Business Federation's (Nippon Keidanren) Declaration of Biodiversity as a Promotion Partner. This means that we support the seven principles set out in the declaration and that we intend to take the initiative in our business activities and act in accordance with the declaration and accompanying action policy. Although we make every effort to incorporate biodiversity into all of our day-to-day business activities here at the Mitsui Chemicals Group, we are particularly increasing our focus on areas such as chemical safety and management, based on the fact that environmental initiatives are inextricably linked to biodiversity.

### Nippon Keidanren Declaration of Biodiversity

1. Appreciate nature's gifts and aim for corporate activities in harmony with the natural environment
2. Act from a global perspective on the biodiversity crisis
3. Act voluntarily and steadily to contribute to biodiversity
4. Promote corporate management for sustainable resource use
5. Create an industry, lifestyle and culture that will learn from biodiversity
6. Collaborate with relevant international and national organizations
7. Spearhead activities to build a society that will nurture biodiversity

### Participating in Wakayama Prefecture's Company Forest scheme

As part of its environmental activities, our affiliate Honshu Chemical Industry signed a Forest Conservation and Management Agreement with Wakayama Prefecture and Hidakagawa Town on September 7, 2010, with the aim of participating in Wakayama Prefecture's Company Forest conservation scheme. As part of the Company Forest scheme, Wakayama Prefecture works in partnership with companies and other organizations to effectively harness the prefecture's rich natural environment and get local people involved in environmental preservation.

On November 13, Honshu Chemical Industry held a tree planting ceremony, as part of which employees and members of their families planted approximately 1,500 trees on a 1.32-hectare area of forestland in Hidakagawa (Hidakawa-gun, Wakayama prefecture). The forest was also given the official title "Hidakagawa Honshu Chemical Industry Forest".

In July 2012, employees from the company's Wakayama Plant volunteered to go out to the forest to cut back the undergrowth. Despite the summer heat, a total of 30 employees and family members set about their work enthusiastically, helped along by other volunteers from outside the company.

Honshu Chemical Industry's activities have been accredited under a Wakayama Prefecture scheme to "certify CO2 absorption by forest and other environment conservation activities" since March 2012. As well as living up to the local community's expectations, the company is determined to help protect the global environment, and intends to continue its active involvement in forestation activities in the future.



Cutting back the undergrowth



Group photo of everyone who took part

### Providing support for “rice farming in harmony with living organisms”

Mitsui Chemicals Agro, one of our group companies, provides a wide range of innovative products, services and solutions, and engages in various activities, in an effort to tackle issues facing its customers and help them in other ways. The National Federation of Agricultural Cooperative Associations (JA ZEN-NOH) meanwhile is working to promote “rice farming in harmony with living organisms”, in the interests of protecting the environment and preserving biodiversity. As well as developing and supplying agrochemicals designed to reduce pesticide usage, in the form of Dinotefuran (developed as an effective product against pests that are harmful to rice plants whilst having little effect on other organisms), Mitsui Chemicals Agro has also joined forces with the federation, an expert in environmental science and rice buyers to carry out “Rice Paddy Organism Surveys” at two JA ZEN-NOH farms where Dinotefuran has been used. Survey results showed that, apart from recognized pests, various other organisms were living in paddy fields in large numbers. A great many people also attended a lecture by Kozo Tani, a doctor of environmental science who took part in the survey, entitled “How many?! Rice paddy organisms and rice farming”.

Working alongside JA ZEN-NOH, in its quest to promote “rice farming in harmony with living organisms,” our group initiatives have achieved the following results to date.

- Provided solutions to issues faced by customers and received positive feedback
- Given farmers using our products a genuine sense of confidence and pride in their paddy fields
- Helped to improve our corporate image by giving JA ZEN-NOH and farmers a better understanding of our products



Rice Paddy Organism Survey



Living organisms

# Environmental Protection

► Goals and Results    ► Preventing Global Warming    ► Reducing Industrial Waste

► Substances Subject to the PRTR Act    ► Preserving air quality    ► Preserving water quality

► Biodiversity    ▼ Environmental Accounting    ► Input⇒Output

► Environmental Impact Assessment    ► Handling Environmental Complaints

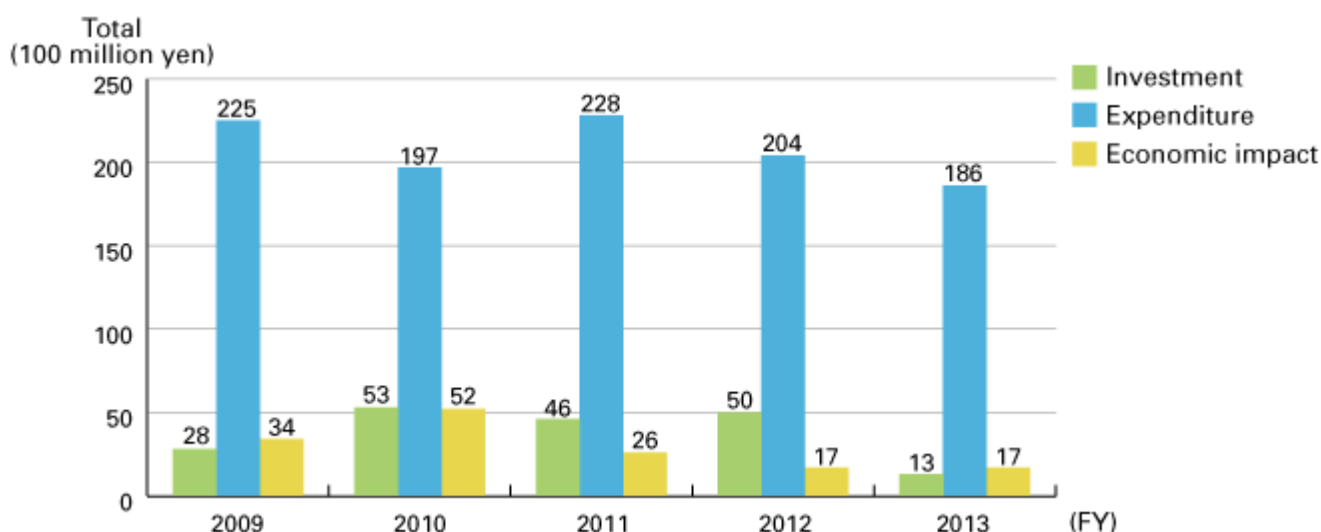
## Environmental Accounting

Mitsui Chemicals invests as much as is necessary in responsible care (RC), including environmental initiatives and occupational health and safety. We also compile and publish our environmental accounts in accordance with the Environmental Accounting Guidelines set out by the Japanese Ministry of the Environment in 2005. We invested approximately ¥1.3 billion and spent a further ¥18.6 billion on protecting the environment in fiscal 2013. Although investment and spending were both lower than in fiscal 2012, that was because of the fire and explosion at our Iwakuni-Ohtake Works.

Including conserved resources and saved energy, the economic impact of our environmental activities this year was equivalent to approximately ¥1.7 billion.

We intend to actively focus on environmental safety activities from fiscal 2014 onwards, to cancel out the effects of the fire and explosion.

### Environmental accounts



### Breakdown of environmental costs and benefits (Period: April 1, 2012 – March 31, 2013)

#### Environmental preservation costs

Unit : Million yen

Category		Main initiatives	Investment	Expenditur
1	Business area costs (Cost of reducing the environmental impact of production and service activities within our business area)		1,155	13,760
	1-1 Cost of preventing pollution	Measures to prevent air pollution, water contamination, odors, etc	607	11,736
	1-2 Cost of protecting the global environment	Energy saving measures	524	53



	1-3 Cost of recycling resources	Recycling industrial waste, etc.	24	1,971
2	Upstream / downstream costs (Cost of reducing the environmental impact of production and service activities in upstream or downstream areas)		0	0
3	Management activity costs (Cost of environmental management activities)	Maintaining environmental management systems, training employees, etc.	0	598
4	R&D costs (Cost of environmental research and development activities)	Developing products and processes to protect the environment, reduce environmental impact, etc.	0	3,200
5	Social activity costs (Cost of environmental social activities)	Increasing greenery, funding measures to combat pollution, etc	0	266
6	Environmental damage costs (Cost of remediating environmental damage)	Remediating pollution, etc.	99	752
Total			1,254	18,576

### Impact of environmental activities

Category		Details	Item (unit)	FY 2012	FY 2013
1	Preventing pollution	Emissions of air pollutants and water contaminants	PRTR substances (tons)	1,744	1,445
			Harmful air pollutants (tons)	32	26
			Volatile organic compounds (VOC) (tons)	2,655	2,029
			Nitrogen oxides (NOx) (tons)	2,944	2,850
			Sulfur oxides (SOx) (tons)	646	652
			Dust (tons)	133	119
			Chemical oxygen demand (COD) (tons)	1,068	1,142
			Total nitrogen (tons)	987	1,170
			Total phosphate (tons)	30	30
2	Preserving the environment		CO <sub>2</sub> emissions (thousand tons)	4,462	4,299
			Water usage (million m <sup>3</sup> )※	456	454
			Wastewater treatment (million m <sup>3</sup> )	49	49
			Final effluent (million m <sup>3</sup> )	429	432
3	Recycling resources		Industrial waste sent offsite (tons)	108,839	112,964
			Industrial waste sent to landfill (tons)	470	543
			Recycling rate (%) [Waste recycled / Waste sent offsite]	62.8	68.3

※ Total water used, including mains water, groundwater, industrial water and seawater

### Economic impact of environmental initiatives

Category	Main benefits	Monetary value

1	Income from recycling	Recycling waste into resources	405
2	Income from saving energy	Saving energy	1,250
3	Income from saving resources	Improving our raw material intensity index	

▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

▶ Preserving air quality

▶ Preserving water quality

▶ Biodiversity

▶ Environmental Accounting

▼ Input⇒Output

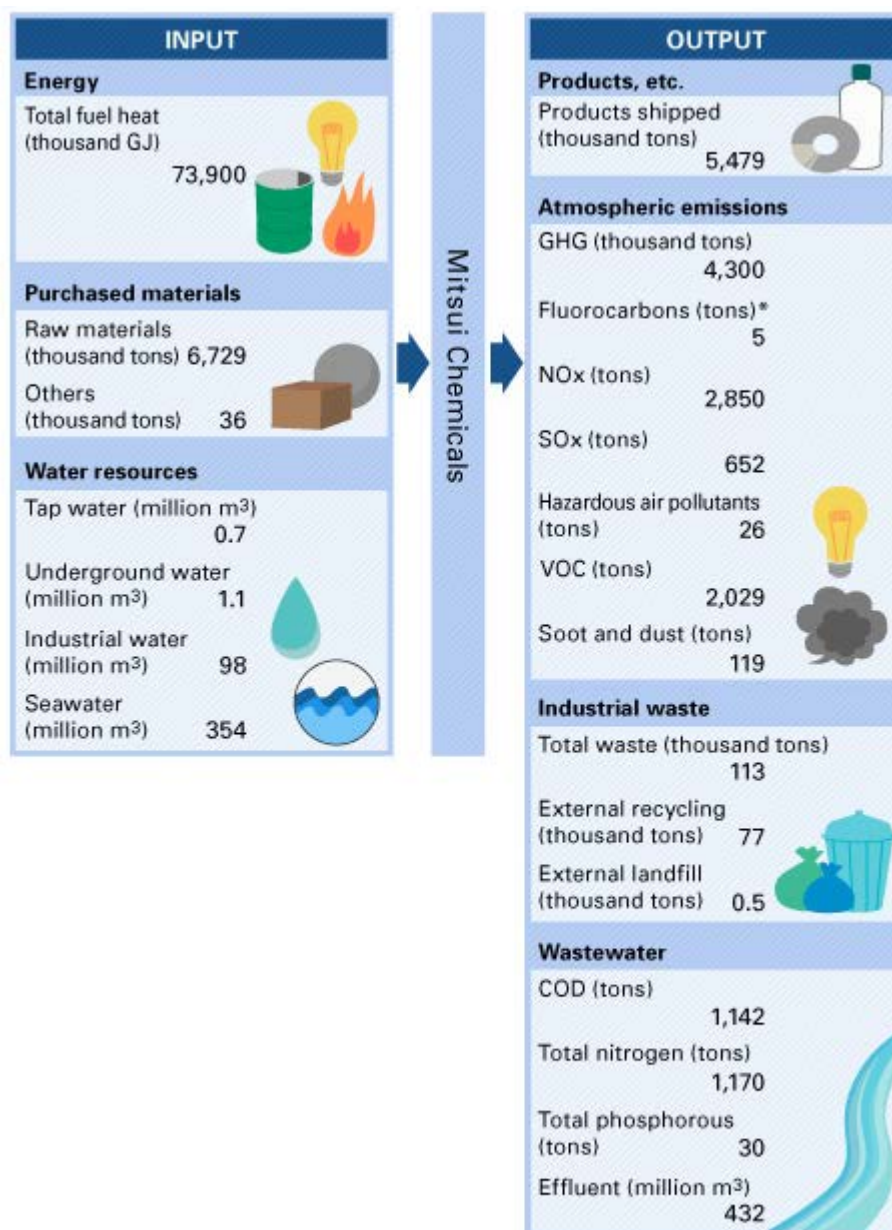
▶ Environmental Impact Assessment

▶ Handling Environmental Complaints

## INPUT⇒OUTPUT

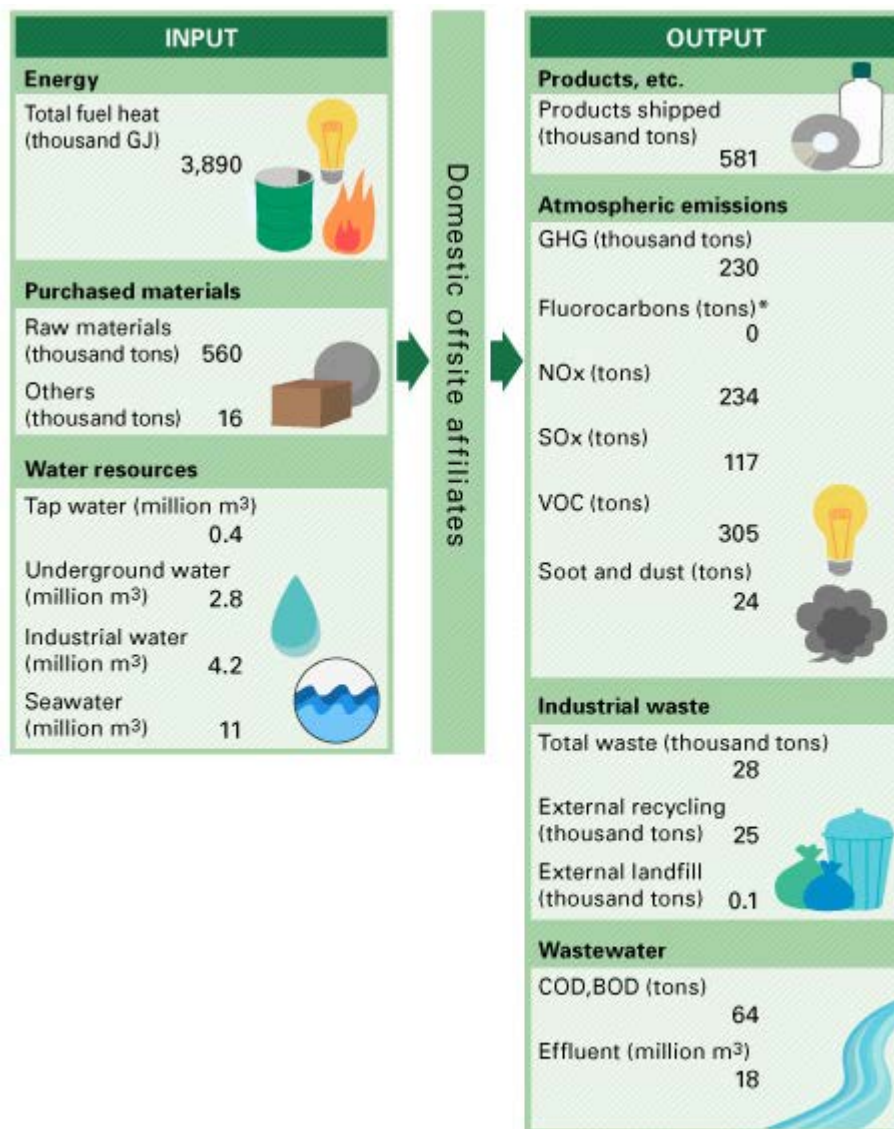
We publish input-output reports explaining the volume of resources that we have consumed and the environmental impact of our business activities throughout the Mitsui Chemicals Group. We are actively working to save resources and reduce environmental impact throughout our business activities in the interests of sustainable development.

### Input⇒Output data (Mitsui Chemicals)



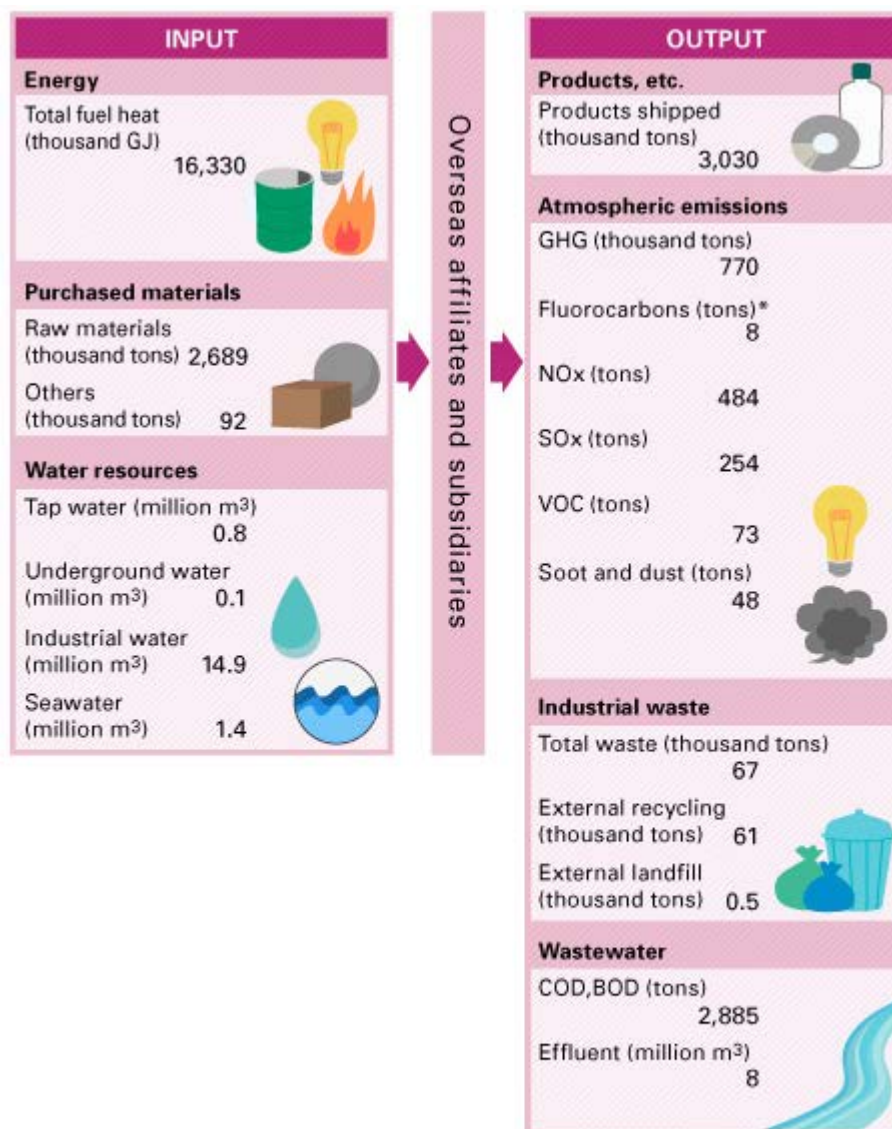
※Fluorocarbons: Subject to the Act on the Recovery and Destruction of Fluorocarbons

Input⇒Output data (domestic offsite affiliates)



※Fluorocarbons: Subject to the Act on the Recovery and Destruction of Fluorocarbons


Input⇒Output data (overseas affiliates and subsidiaries)



※Fluorocarbons: Subject to the Act on the Recovery and Destruction of Fluorocarbons

## INPUT⇒OUTPUT Data for Individual Sites

We monitor consumption of resources and measure environmental impact at each of our sites, so that we can keep track of the relevant figures.

[INPUT⇒OUTPUT Data for Individual Sites](#)  
 (PDF : 688KB) 

## Kashima Works

Relaunched in its current form in April 2009, our Kashima Works manufactures a wide range of products, from raw materials for bathtubs, furniture and other items for the home through to industrial products such as automotive parts, building materials and materials for fishing boats.

[http://jp.mitsuichem.com/corporate/group/domestic\\_09.htm](http://jp.mitsuichem.com/corporate/group/domestic_09.htm)

Total fuel heat (thousand GJ)	1,880	Kashima Works	Products shipped (thousand tons)	238
Raw materials (thousand tons)	252.3		GHG(thousand tons)	120
Purchased materials (thousand tons)	5.3		Fluorocarbons(tons)	1.2
Tap water (thousand m³)	26		NOx(tons)	64.8
Underground water (thousand m³)	500		SOx(tons)	22.2
Industrial water (thousand m³)	4,300		Hazardous air pollutants (tons)	6.45
Seawater (thousand m³)	0		VOC(tons)	69.2
			Soot and dust (tons)	1.9
			Total Industrial waste (thousand tons)	0.6
			External recycling (thousand tons)	0.5
		External landfill (thousand tons)	0.04	
		COD(tons)	202.0	
		Total nitrogen(tons)	3.9	
		Total phosphorous(tons)	0.5	
		Effluent(thousand m³)	3,449	

## Ichihara Works

We commenced operations at our Ichihara Works in 1967. It is one of the leading comprehensive petrochemical works in the country, manufacturing various resins, chemical products and other derivatives around a central ethylene plant. Production activities continue to go from strength to strength, as our core works for petrochemical and basic chemical products.

[http://jp.mitsuichem.com/corporate/group/domestic\\_02.htm](http://jp.mitsuichem.com/corporate/group/domestic_02.htm)

Total fuel heat (thousand GJ)	29,430	Ichihara Works	Products shipped (thousand tons)	2,266
Raw materials (thousand tons)	2,313		GHG (thousand tons)	1,550
Purchased materials (thousand tons)	6.9		Fluorocarbons (tons)	0.0
Tap water (thousand m <sup>3</sup> )	0		NOx (tons)	1,082.0
Underground water (thousand m <sup>3</sup> )	130		SOx (tons)	394.0
Industrial water (thousand m <sup>3</sup> )	23,900		Hazardous air pollutants (tons)	1.3
Seawater (thousand m <sup>3</sup> )	268,000		VOC (tons)	641.0
			Soot and dust (tons)	41.0
			Total Industrial waste (thousand tons)	9.7
			External recycling (thousand tons)	9.7
		External landfill (thousand tons)	0	
		COD (tons)	71.5	
		Total nitrogen (tons)	31.2	
		Total phosphorous (tons)	2.2	
		Effluent (thousand m <sup>3</sup> )	280,750	

## Mobara Branch Factory

We commenced operations at our Mobara Branch Factory in 1957, with the aim of expanding the chemical industry using natural gas as a raw material. These days, it specializes in manufacturing highly functional products. We established our Technical Training Center onsite in 2006, as an educational facility and a focal point for transferring skills throughout the company.

[http://jp.mitsuichem.com/corporate/group/domestic\\_08.htm](http://jp.mitsuichem.com/corporate/group/domestic_08.htm)

Total fuel heat (thousand GJ)	810	Mobara Branch Factory	Products shipped (thousand tons)	53
Raw materials (thousand tons)	51.0		GHG(thousand tons)	40
Purchased materials (thousand tons)	2.0		Fluorocarbons (tons)	0.0
Tap water (thousand m³)	3		NOx (tons)	17.7
Underground water (thousand m³)	480		SOx (tons)	0.0
Industrial water (thousand m³)	430		Hazardous air pollutants (tons)	0.0
Seawater (thousand m³)	0		VOC (tons)	16.0
			Soot and dust (tons)	0.6
			Total Industrial waste (thousand tons)	2.7
			External recycling (thousand tons)	2.7
		External landfill (thousand tons)	0	
		COD (tons)	18.0	
		Total nitrogen (tons)	12.0	
		Total phosphorous (tons)	3.0	
		Effluent (thousand m³)	735	



## Nagoya Works

We began manufacturing polyvinyl chloride resins at our Nagoya Works in 1951, using unique technology that had never previously been used in Japan. These days, the works has transformed into a production hub specializing in electronic and IT materials and products. Its main products include processing tape for manufacturing integrated circuits(IC) and sealant sheets for solar cells.

[http://jp.mitsuichem.com/corporate/group/domestic\\_03.htm](http://jp.mitsuichem.com/corporate/group/domestic_03.htm)

Total fuel heat (thousand GJ)	940	Nagoya Works	Products shipped (thousand tons)	87
Raw materials (thousand tons)	60.9		GHG(thousand tons)	50
Purchased materials (thousand tons)	6.2		Fluorocarbons(tons)	0.1
Tap water (thousand m <sup>3</sup> )	4		NOx (tons)	7.6
Underground water (thousand m <sup>3</sup> )	0		SOx(tons)	0.0
Industrial water (thousand m <sup>3</sup> )	4,500		Hazardous air pollutants (tons)	0.4
Seawater (thousand m <sup>3</sup> )	0		VOC (tons)	2.5
			Soot and dust (tons)	0.2
			Total Industrial waste (thousand tons)	3.1
			External recycling (thousand tons)	2.0
			External landfill (thousand tons)	0.02
			COD(tons)	14.0
			Total nitrogen (tons)	5.0
			Total phosphorous (tons)	0.6
			Effluent(thousand m <sup>3</sup> )	3,936

## Osaka Works

Located in the Sakai Senboku Coastal Industrial Zone, one of the leading industrial areas in Japan, our Osaka Works has a large dock capable of accommodating 100,000-ton tankers. Production activities make the most of the works' ideal location, in terms of operations and distribution, with nearly half of all products and raw materials transported by ship.

[http://jp.mitsuichem.com/corporate/group/domestic\\_04.htm](http://jp.mitsuichem.com/corporate/group/domestic_04.htm)

Total fuel heat (thousand GJ)	27,100	Osaka Works	Products shipped (thousand tons)	1,942
Raw materials (thousand tons)	3,491		GHG(thousand tons)	1,560
Purchased materials (thousand tons)	2.0		Fluorocarbons(tons)	2.5
Tap water (thousand m <sup>3</sup> )	64		NOx (tons)	874.8
Underground water (thousand m <sup>3</sup> )	0		SOx(tons)	73.8
Industrial water (thousand m <sup>3</sup> )	20,800		Hazardous air pollutants (tons)	13.6
Seawater (thousand m <sup>3</sup> )	56,900		VOC (tons)	82.5
			Soot and dust (tons)	17.7
			Total Industrial waste (thousand tons)	12.1
			External recycling (thousand tons)	10.3
			External landfill (thousand tons)	0.09
			COD(tons)	250.0
			Total nitrogen (tons)	584.0
			Total phosphorous (tons)	5.3
			Effluent(thousand m <sup>3</sup> )	65,606

## Iwakuni-Ohtake Works

We commenced operations at our Iwakuni-Ohtake Works in April 1958, as Japan's first comprehensive petrochemical works. It manufactures PTA, the raw material in polyester fibers, and PET resin, which is used to make plastic bottles, and is one of the largest scale facilities of its kind in the country.

[http://jp.mitsuichem.com/corporate/group/domestic\\_05.htm](http://jp.mitsuichem.com/corporate/group/domestic_05.htm)

Total fuel heat (thousand GJ)	5,200	Iwakuni-Ohtake Works	Products shipped (thousand tons)	318
Raw materials (thousand tons)	272		GHG(thousand tons)	360
Purchased materials (thousand tons)	1.8		Fluorocarbons(tons)	0.0
Tap water (thousand m <sup>3</sup> )	100		NOx (tons)	289.0
Underground water (thousand m <sup>3</sup> )	0		SOx(tons)	150.0
Industrial water (thousand m <sup>3</sup> )	29,500		Hazardous air pollutants (tons)	2.8
Seawater (thousand m <sup>3</sup> )	29,200		VOC (tons)	730.0
			Soot and dust (tons)	28.0
			Total Industrial waste (thousand tons)	22.2
			External recycling (thousand tons)	19.1
			External landfill (thousand tons)	0.26
			COD(tons)	199.0
			Total nitrogen (tons)	15.0
			Total phosphorous (tons)	6.7
			Effluent(thousand m <sup>3</sup> )	52,422



## Tokuyama Branch Factory

Relaunched in its current form as part of our Iwakuni-Ohtake Works in April 2009, our Tokuyama Branch Factory manufactures PPG, a raw material used in polyurethane. It is our main production hub for PPG in western Japan, shipping to automotive companies in Kyushu and exporting products to Southeast Asia.

[http://jp.mitsuichem.com/corporate/group/domestic\\_10.htm](http://jp.mitsuichem.com/corporate/group/domestic_10.htm)

Total fuel heat (thousand GJ)	140	Tokuyama Branch Factory	Products shipped (thousand tons)	38
Raw materials (thousand tons)	36		GHG (thousand tons)	10
Purchased materials (thousand tons)	1.2		Fluorocarbons (tons)	0.0
Tap water (thousand m <sup>3</sup> )	14		NOx (tons)	4.1
Underground water (thousand m <sup>3</sup> )	0		SOx (tons)	2.8
Industrial water (thousand m <sup>3</sup> )	6,500		Hazardous air pollutants (tons)	0.2
Seawater (thousand m <sup>3</sup> )	0		VOC (tons)	20.0
			Soot and dust (tons)	0.2
			Total Industrial waste (thousand tons)	4.9
			External recycling (thousand tons)	4.4
			External landfill (thousand tons)	0
			COD (tons)	18.0
			Total nitrogen (tons)	0.3
			Total phosphorous (tons)	0.0
			Effluent (thousand m <sup>3</sup> )	6,558

## Omuta Works

We commenced operations at our Omuta Works in 1912 and continued to operate as a coal complex through to the early 1960s, using byproducts from Mitsui Mining's coke ovens. These days, the works specializes in organic synthesis technology and serves as our main fine chemical facility, primarily manufacturing functional chemicals.

[http://jp.mitsuichem.com/corporate/group/domestic\\_06.htm](http://jp.mitsuichem.com/corporate/group/domestic_06.htm)

Total fuel heat (thousand GJ)	8,140	Omuta Works	Products shipped (thousand tons)	537
Raw materials (thousand tons)	253		GHG (thousand tons)	590
Purchased materials (thousand tons)	11		Fluorocarbons (tons)	0.6
Tap water (thousand m <sup>3</sup> )	420		NOx (tons)	511.0
Underground water (thousand m <sup>3</sup> )	0		SOx (tons)	9.0
Industrial water (thousand m <sup>3</sup> )	76,00		Hazardous air pollutants (tons)	1.3
Seawater (thousand m <sup>3</sup> )	0		VOC (tons)	466.9
			Soot and dust (tons)	29.0
			Total Industrial waste (thousand tons)	56.8
			External recycling (thousand tons)	28.1
			External landfill (thousand tons)	0.12
			COD (tons)	369.0
			Total nitrogen (tons)	517.0
			Total phosphorous (tons)	11.4
			Effluent (thousand m <sup>3</sup> )	18,844

## Sodegaura Center (R&D Center)

Including affiliates, our R&D center brings together around 1,000 researchers, all of whom continue to create new technologies and materials in an effort to make society a more comfortable place.

[http://jp.mitsuichem.com/corporate/group/domestic\\_07.htm](http://jp.mitsuichem.com/corporate/group/domestic_07.htm)

Total fuel heat (thousand GJ)	260	Sodegaura Center	Products shipped (thousand tons)	0
Raw materials (thousand tons)	0		GHG (thousand tons)	10
Purchased materials (thousand tons)	0		Fluorocarbons (tons)	0
Tap water (thousand m <sup>3</sup> )	53		NOx (tons)	0
Underground water (thousand m <sup>3</sup> )	28		SOx (tons)	0
Industrial water (thousand m <sup>3</sup> )	0		Hazardous air pollutants (tons)	0
Seawater (thousand m <sup>3</sup> )	0		VOC (tons)	0
			Soot and dust (tons)	0
			Total Industrial waste (thousand tons)	0.8
			External recycling (thousand tons)	0.4
			External landfill (thousand tons)	0
			COD (tons)	0.3
			Total nitrogen (tons)	0.4
			Total phosphorous (tons)	0.0
			Effluent (thousand m <sup>3</sup> )	81

▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

▶ Preserving air quality

▶ Preserving water quality

▶ Biodiversity

▶ Environmental Accounting

▶ Input⇒Output

▼ Environmental Impact Assessment

▶ Handling Environmental Complaints

## Environmental Impact Assessment

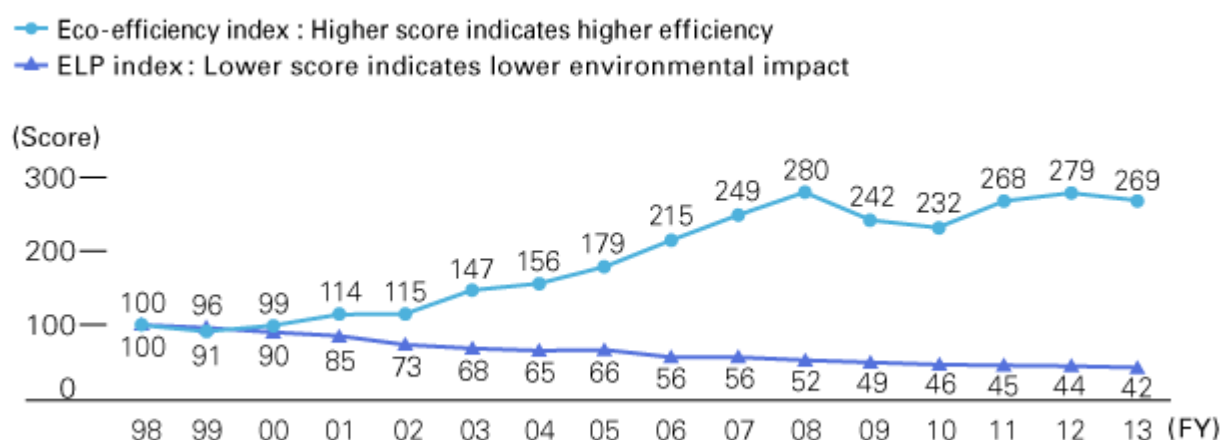
As part of our commitment to sustainable development, both social and corporate, we use “eco-efficiency” to evaluate the relationship between our economic activities and the environmental impact of our business activities here at Mitsui Chemicals. Set out at the Earth Summit in 1992, eco-efficiency is an integrated index that takes into account both environmental and economic factors. It is used to measure the extent to which economic activities, including the provision of products and services, impact on the environment.

Eco-efficiency can be expressed using the following formula. To calculate Mitsui Chemicals' environmental load points (ELP), we use weighted coefficients appropriate for the chemical industry and the environment in Japan based on the Panel Method developed by Professor Katsuya Nagata from Waseda University.

$$\text{Eco-efficiency} = \frac{\text{Sales}}{\text{Environmental load points (emissions, waste, etc.)}}$$

As a result of our ongoing efforts to preserve the environment, we achieved an ELP index of 42 and an eco-efficiency index of 269 in fiscal 2013. This is the best result we have achieved in terms of ELP (lower score = less environmental impact) since we began evaluating our activities.

### Eco-efficiency and ELP indices (FY1998 = 100)



### Calculating eco-efficiency index

Item	Integration coefficient	FY 1998		FY 2013	
		Actual total (t)	Integrated total (*10 <sup>3</sup> )	Actual total (t)	Integrated total (*10 <sup>3</sup> )

CO <sub>2</sub>	1	6,632,875	6,633	4,299,000	4,299
NOx	805	4,203	3,384	2,850	2,295
SOx	856	1,079	924	652	558
Priority substances	478	648	310	34	16
VOC	239	20,478	4,894	2,029	485
Soot and dust	321	381	122	119	38
COD	600	2,537	1,522	1,142	685
Nitrogen	600	5,608	3,365	1,170	702
Phosphorous	600	73	44	30	18
Waste	3	75,341	234	543	1.7
Integrated total (A)			<b>21,430</b>		<b>9,098</b>
Mitsui Chemicals sales (non-consolidated) (100 million yen) (B)			7,063		8,077
Environmental efficiency index (B) / (A) *10 <sup>-6</sup>			330		888
Eco-efficiency index			100		269

※ Integration coefficients obtained by averaging coefficients for Japan, calculated by LCA, environmental, and corporate experts, based on the Panel Method developed by Professor Katsuya Nagata from Waseda University, with the coefficient for CO<sub>2</sub> as 1

▶ Goals and Results

▶ Preventing Global Warming

▶ Reducing Industrial Waste

▶ Substances Subject to the PRTR Act

▶ Preserving air quality

▶ Preserving water quality

▶ Biodiversity

▶ Environmental Accounting

▶ Input⇒Output

▶ Environmental Impact Assessment

▼ Handling Environmental Complaints

## Handling Environmental Complaints

In response to environmental complaints, we have issued apologies to local residents, talked the situation over and come to an understanding. In both cases, the works thoroughly reviewed the complaint and dealt with the matter quickly and effectively.

### Response to environmental complaints

Works	Details	Response
Ichihara	Substantial flames being emitted from flare stack, caused by a power cut (purchased power) triggering an emergency plant shutdown	<ul style="list-style-type: none"> <li>• Explained the situation to local residents and the authorities</li> <li>• Circulated an “Apology regarding flare stack flames and noise”</li> </ul>
Osaka	Substantial flames being emitted from flare stack	Adjusted gas emissions via the flare stack to calm flames
Omuta	Rain water spilling over from pit, following heavy rains, and causing odors in surrounding area	Implemented measures using wastewater treatment plants and other facilities as buffers

(Complaints regarding the Iwakuni-Ohtake Works fire and explosion not included)

## ▼ Goals and Results

## ▶ Ensuring the Safety of Chemicals and Products

### ▶ Risk Assessments for Mitsui Chemicals Products

**We are committed to rigorous management of chemicals at Mitsui Chemicals, and fully support the Word Summit on Sustainable Development (WSSD) pledge to minimize the negative impact of chemicals on people and the environment by the year 2020.**

## Goals and Results

### Goals for Fiscal 2013

- Implement chemical management system  
Specific measures:  
Conduct product and chemical risk assessments and publish the results  
Establish within the company and implement a definitive approach to environmentally friendly products  
Start using integrated information management system for products and chemicals
- Ensure that all 2013 REACH substances are registered

### Fiscal 2013 Goals and Results

#### Level achieved : A

- Carried out scheduled product risk assessments and published the results
- Produced m-SI as a guideline for assessing social and environmental performance
- Finished compiling product data and started using our integrated information management system
- Completed registration of substances under REACH 2013

### Priorities for Fiscal 2014

- Implement chemical management system  
Specific measures:  
Establish chemical management framework based on our integrated information management system  
Carry out product risk assessments and environmental impact assessments based on the principle of product stewardship, and put assessment data to good use

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more and less than 95%, C: less than 70%

We have also set out the following objectives and basic plan, as part of the 2020 targets under our Chemicals Management Strategy.

1. Establish environmental impact assessment technologies and standards, and actively promote the development of environmentally friendly products, in order to help create a sustainable society and maintain harmony with the environment
2. Conduct risk assessments for all products, based on the concept of product stewardship, and disclose the results to stakeholders, in order to help reassure the general public

► Goals and Results

▼ Ensuring the Safety of Chemicals and Products

► Risk Assessments for Mitsui Chemicals Products

## Ensuring the Safety of Chemicals and Products

Following on from the previous year, we continued to carry out risk assessments in line with our Chemicals Management Strategy in fiscal 2013. We also took every opportunity to engage in communication, through initiatives such as publishing assessment results via our website, to provide our customers with even more information, and disclosing information on hazardous substances to the government. “Visualizing” the contribution that our products make to society and the environment throughout their life cycle was another of our key priorities this year.

In fiscal 2014, we intend to launch a full-scale integrated management system for all chemical data, as the basis for future initiatives under our Chemicals Management Strategy. We will then build on the relevant system to firmly establish a chemical management framework. We will also continue to carry out product risk assessments and environmental impact assessments, and publish the results.

### New chemical management initiatives in line with new chemical legislation

Our vision for chemical management is based on adequately controlling product and chemical risks throughout each product's lifecycle, from development to disposal, and on providing our customers and other stakeholders with adequate information so that they can use our products more safely.

#### Mitsui Chemicals' vision for comprehensive chemical management



Our aim is to contribute to society and the environment through our products, by carrying out product risk assessments and environmental impact assessments, and providing new products that make a real difference to society and the environment.

We are continuously working to achieve this standard of chemical management, so that we can achieve targets set out by the World Summit on Sustainable Development (WSSD). We are determined to make a difference through activities such as these, so that we can help to create a sustainable and secure society.

### Results of chemical and product safety initiatives



#### 1. Risk assessments

We implement chemical safety management based on risks identified via our Safety Assessment System. We carry out risk assessments for new products as standard, to ensure that they are safe. In fiscal 2012, we started to conduct risk assessments for existing products too, in conjunction with activities carried out by the International Council of Chemical Associations (ICCA) and the Japan Chemical Industry Association (JCIA). We published details of the 10 substances for which we completed risk assessments this year in the form of “safety summary sheets” on our website. We also take every

opportunity to engage in communication, through initiatives such as providing the government with information on hazardous substances, and continue to improve our information capabilities so that our customers can use our products more safely.

## 2. Environmental impact assessments

We are working to “visualize” the contribution that our products make to society and the environment throughout their life cycle. We have established m-SI (mitsui Sustainability Index) in order to visualize the contribution that we make to the environment by manufacturing products and putting them out there for people to use. m-SI acts as a guideline index, enabling us to assess the environmental impact of our activities across 11 categories, including reducing greenhouse gases and preventing pollution. Having carried out social and environmental contribution assessments in line with m-SI and quantitative assessments based on LCA<sup>\*1</sup>, we determined that our NOx reducing agent AdBlue<sup>TM</sup><sup>\*2</sup>, for instance, helps to reduce NOx emissions by 36,000 tons annually judging from domestic sales of the agent. We have also shared that information with our customers.

 [Click here for more information about AdBlue<sup>TM</sup>](#) 

\*1 LCA (life cycle assessment) :

Technique used to quantitatively evaluate the environmental impact of a product at every stage, from development and production through to shipping, usage and disposal

\*2 AdBlue<sup>TM</sup> is a registered trademark of the German Association of the Automotive Industry.

## 3. Integrated information management

We have developed and launched a fully operational integrated management system for chemical data, in line with our Chemicals Management Strategy. We established the system with the aims of (1) strengthening links with core operating processes, (2) ensuring compliance with domestic and overseas legislation and increasing efficiency, and (3) reinforcing management of product data and accelerating the provision of information to our customers. As one of our system tools, we have installed SAP EHS Management, an environmental management system supplied by SAP. The system is highly compatible with SAP ERP, which we use as a management system, and enables us to easily link existing chemical data with ERP supply chain data. This means that we can now perform integrated management of all information relating to raw materials, products and chemicals, including production and sales volumes, and usage data. As a result, chemical data is now fully traceable throughout the life cycle of each of our products, from procuring raw materials to shipping finished products. We are also able to verify legal compliance when we receive orders for products and ship overseas.



► Goals and Results

► Ensuring the Safety of Chemicals and Products

▼ Risk Assessments for Mitsui Chemicals Products

## Risk Assessments for Mitsui Chemicals Products

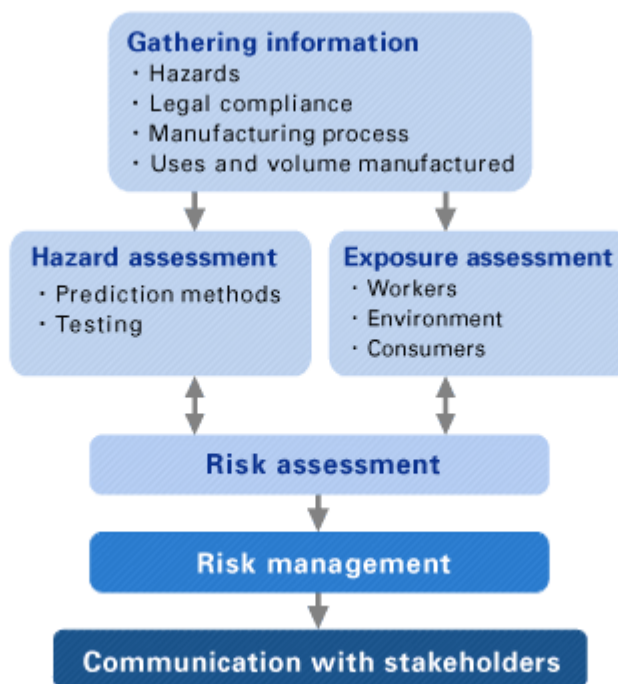
As part of our Chemicals Management Strategy, we carry out product risk assessments based on the principle of product stewardship (PS). The aim of PS activities is to take into consideration the environment, human health and safety throughout the life cycle of each product, from development through to disposal.

We believe that the value of our products depends on putting PS into practice, as well as the performance of the product itself. That is why we carry out risk assessments and continue to strengthen communication with stakeholders throughout the life cycle of our products. Our aim is to help create a sustainable society through activities such as these.

### Risk assessment procedure at Mitsui Chemicals

We carry out occupational and environment risk assessments for materials and products, and consumer risk assessments for products. We also carry out a range of risk assessments for products that are used for special purposes or using certain methods. The diagram below outlines a typical example of the risk assessment process.

#### Outline of the risk assessment process



If it is not possible to gather the necessary information on hazards and substances for risk assessments, we actively obtain data using predictive techniques. We make every effort to improve the accuracy of risk assessments through activities such as these, so that information is easier for our stakeholders to understand.

We pass on safety information and risk assessment results obtained in this manner to our stakeholders, to enable them to use and manage chemicals safely.

### Safety summary sheets

Safety summary sheets outline the results of risk assessments on individual substances in an easy to understand format. Unlike safety data sheets (SDS), which are used to share information along the supply chain, safety summary sheets are designed to give members of the public a correct understanding of how to handle chemicals. In particular, many of our products here at Mitsui Chemicals are handled by workers dealing with manufacturing processes in factories. We therefore compile safety sheets aimed specifically at workers, as they are the primary target audience.



## ▼ Goals and Results

## ▶ Quality Improvement Initiatives

We are committed to continually improving the level of quality management here at the Mitsui Chemicals Group, under our Basic Policy Regarding the Environment, Safety, Occupational Health and Quality. We also make every effort to improve the quality of our products and services so as to increase customer satisfaction even further.

## Goals and Results

### Goals for Fiscal 2013

- Prioritize improvements to products subject to a relatively high number of complaints, to improve overall products and services

### Fiscal 2013 Results and Assessment

#### Level achieved: A

- Investigated the underlying causes of relatively high numbers of complaints regarding certain products, on a priority basis, and rolled out measures to reduce similar complaints

### Priorities for Fiscal 2014

- Prioritize improvements to products subject to a relatively high number of complaints, in order to improve overall products and services

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more and less than 95%, C: less than 70%

## Quality Improvement Initiatives

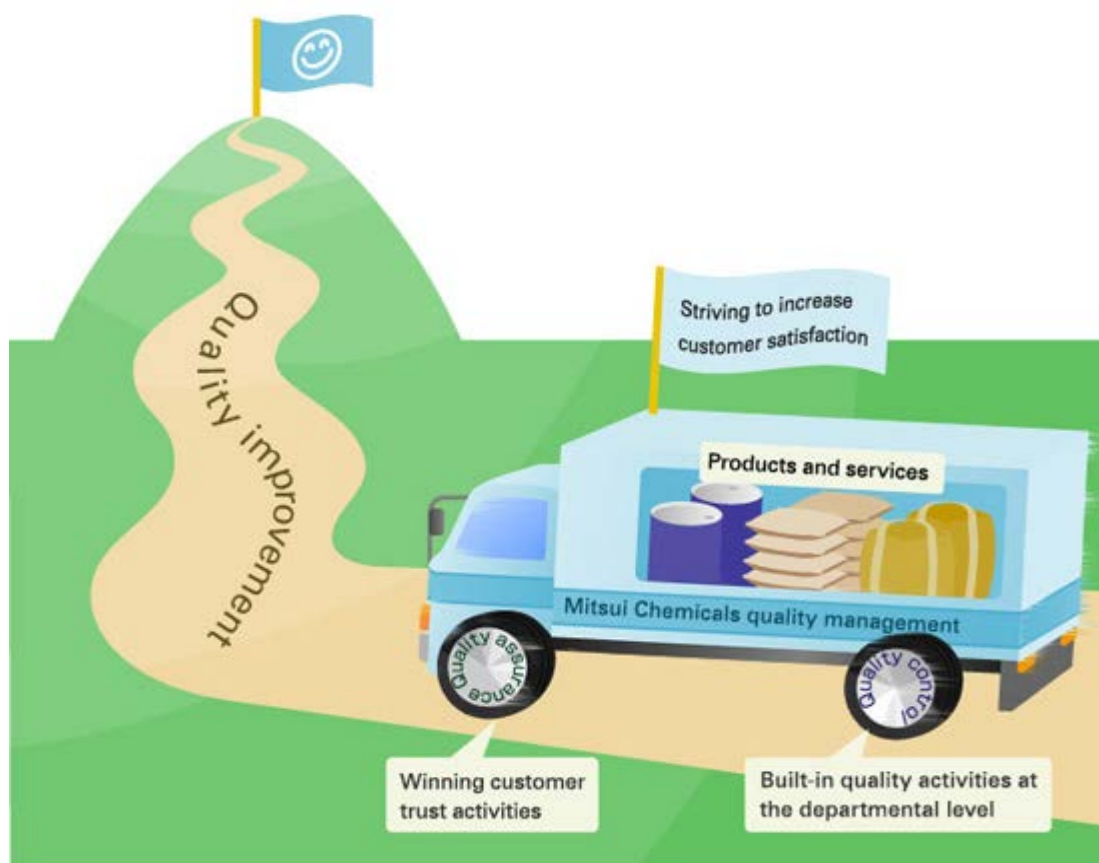
### Quality Management System

The Mitsui Chemicals Group makes every effort to increase customer satisfaction via a two-pronged approach to quality management, based on quality control ("built-in quality activities") and quality assurance ("winning customer trust activities").

Our built-in quality activities are aimed at minimizing discrepancies at every stage of the process, including purchasing, design, logistics and sales as well as manufacturing, to enable every department to provide the same quality of product and service.

Our winning customer trust activities meanwhile are aimed at resolving issues from the customer's perspective, and are spearheaded by the Quality Assurance Department, independently of our sales and manufacturing sections.

### Quality management system



Reference: ISO9000 (Quality management systems - Fundamentals and vocabulary)  
 Quality assurance: Part of quality management, focused on providing confidence that quality requirements will be fulfilled  
 Quality control: Part of quality management, focused on fulfilling quality requirements

### Improving the standard of quality management

Our efforts to improve quality management standards revolve primarily around quality auditing and training. We provide all departments within the Mitsui Chemicals Group, including our Head Office, works, factories, laboratories, and domestic and overseas facilities, with support in order to improve quality management through quality auditing. These activities enable us to quantitatively assess and improve quality management standards in each department, whilst also keeping individual departments under close control. Having commenced quality audits under a new three-year plan from fiscal 2013 onwards, we are continuing to monitor progress with improvements in all departments. Please click the link below to view the results of quality audits at our affiliates in fiscal 2013.

In terms of quality training meanwhile, we have formulated a training program and are educating employees through e-learning. We also been implementing frontline measures to prevent quality issues on the shop floor (QRG activities<sup>\*1</sup>) since fiscal 2011, with the aim of identifying and eliminating risks that could lead to quality issues. We are constantly working to encourage and raise levels of quality awareness on the frontline, and give out awards to departments or individuals that have particularly helped to improve frontline quality standards, to coincide with our annual nationwide Quality Month campaign.

※1 QRG activities are carried out by Quality Risk Reduction Groups in an effort to reduce quality risks.

## **Responding to “Voice of customer”**

Whenever we receive a complaint from one of our customers regarding our products or services, we respond as quickly as possible, identify the cause of the complaint, and take corrective action, through collaboration between the departments concerned. Details of the cause of the complaint and measures taken are then disseminated throughout the group, so as to prevent any similar issues from occurring in the future. In fiscal 2013, we continued to implement preventive measures for priority products, in an effort to prevent similar issues from occurring in the future and reduce complaints. We also have a dedicated department to investigate and deal with customer inquiries regarding chemicals contained in our products as quickly as possible.

### **Customer-specific initiatives:**

#### **Developing products with an emphasis on food safety and hygiene**

Before marketing resin products for packaging and containers that will come into direct contact with food, we always check to make sure that they are compliant with regulations such as domestic industry standards issued by organizations such as the Japan Hygienic Olefin and Styrene Plastics Association and standards set out by the US Food and Drug Administration (FDA), and conduct in-house risk assessments.

In recent years, regulations on food packaging materials in the EU have been extended to include Commission Regulation (EU) No. 10/2011 on plastic materials and articles. With that in mind, we have set out internal manufacturing standards, including steps to prevent foreign particles from contaminating our products and water quality standards for all water used in manufacturing, and have put in place systems that can be strictly applied.

### **Quality activities on worksites:**

#### **Initiatives at Utsunomiya Chemical Industry's Funaoka Plant**

Utsunomiya Chemical Industry's Funaoka Plant was established in 1961, with the aim of manufacturing herbicides for use in paddy fields, as a member of the Mitsui Chemicals Group. These days, it is one of the group's core plants for manufacturing a range of drugs and general pharmaceuticals, including key Mitsui Chemicals Agro products such as the pesticides TREBON<sup>TM</sup> and STARKLE<sup>TM</sup>.

Having obtained certification under ISO 9001 in 2002, the plant continues to improve its quality management systems, and is committed to increasing the accuracy of its management activities. To achieve this, it is working with the RC & Quality Assurance Division at Mitsui Chemicals and the Safety & Environment Quality Assurance Division at Mitsui Chemicals Agro to come up with ways of preventing quality issues from the new product development stages onwards and to conduct regular inspections. In terms of getting employees involved in activities meanwhile, the plant identifies quality risks through initiatives such as “quality near-miss” reporting and post-production meetings, and is also working to create an organizational culture that will help eliminate quality complaints, by improving “visualization” in order of importance for example. As a result of activities such as these, the plant has controlled the level of quality complaints so effectively that it has only received one complaint in the last five years (regarding one product bottle). With the customer in mind at all times, the plant's entire workforce is committed to achieving even higher quality standards in the future, in order to provide customers with products that offer improved safety, greater performance and reduced environmental impact.

## ▼ Goals and Results

## ▶ Transporting Products Safely

Here at the Mitsui Chemicals Group, we carry out a wide range of initiatives to ensure that our products are transported safely.

### Goals and Results

#### Goals for Fiscal 2013

- Continue to improve the safety and quality of logistics operations

#### Fiscal 2013 Results and Assessment

##### Level achieved: A

- Major accidents: 0 (as of March 15, 2013)
- Complaints: 10 (as of March 15, 2013)
- Cost of complaints: ¥8 million (as of March 15, 2013)

#### Priorities for Fiscal 2014

- Continue to improve the safety and quality of logistics operations (ongoing)

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more and less than 95%, C: less than 70%

## ► Goals and Results

## ▼ Transporting Products Safely

## Transporting Products Safely

## Dialog with Logistics Contractors

We are committed to conducting safety activities in partnership with our logistics contractors here at the Mitsui Chemicals Group.

The department responsible for logistics at each of our works organizes logistics meetings with the works' logistics contractors, usually once a month, in order to share information about accidents and other relevant matters, review details of *hiyari-hatto* (near-miss)<sup>\*1</sup> incidents, carry out onsite patrols and training, and improve communication. We also make every effort to prevent accidents as part of our logistics operations by requiring contractors to undergo responsible care audits and engaging in safety dialog with onsite operators, based on the principle of *Sangen Shugi*, or “the three actuals”<sup>\*2</sup>.

\*1 Near-miss: Any narrowly-avoided major accident or disaster

\*2 The three actuals: Solving problems by going to the actual location (*genba*), inspecting the actual situation (*genbutsu*) and ascertaining the actual facts (*genjitsu*)

## Safety Measures using SDS and Yellow Cards

As we deal with high-pressure gas and numerous hazardous or toxic chemicals that are required by law to be managed and handled in a certain manner, we take the utmost care to ensure that our products are transported safely. In order to provide logistics contractors with information about essential precautions when handling and storing our products (e.g. hazardous or toxic products), we supply them with safety data sheets (SDS<sup>\*1</sup>). We also require drivers and other operators transporting our products to carry yellow cards outlining measures that need to be taken and information that needs to be reported in the event of an accident.

\*1 SDS: Safety Data Sheet

Documentation issued by one operator to another when transporting chemicals or other such substances, containing information such as the name of the substance, the name of the supplier, hazard/toxicity levels, safety measures and emergency procedures



Yellow card

## Eliminating transport-related and occupational accidents

Logistics operators have to perform numerous tasks in high places. Filling a tanker for instance involves working at a height of at least three meters off the ground. In the interests of safety, operators wear safety harnesses to prevent them from falling. They are also required to wear protective gear to prevent burns or injuries from exposure to chemicals. We are committed to promoting and enforcing basic safety rules.

1. If you cannot see clearly, get out of the truck and make sure it is safe before reversing.
2. When parking, make sure that the brake lock is on and put stoppers under the tires.
3. Always do a full walk-around inspection to check that everything is safe before starting the truck.

We are also running a nationwide campaign to reduce and eliminate accidents as part of our logistics operations.

## Minimizing damage in the event of an accident

In an effort to minimize damage in the event of an accident whilst transporting our products, we have introduced a set of regulations outlining the Mitsui Chemicals Group Logistics Emergency Network (MENET). The network is divided into six areas covering different parts of the country and can be mobilized 24 hours a day. We also conduct emergency contact and mobilization drills twice a year.

## MENET support bases





## Communication with Society

Here at the Mitsui Chemicals Group, we are always trying to be as receptive as possible to what people want and what they expect from us. We are fully committed to communication with our stakeholders to achieve that.

### ► Respect for Human Rights

Here at the Mitsui Chemicals Group, we regard human rights as universal values and make every effort to put people first in all of our corporate activities.

► Basic philosophy on human rights

### ► Working with our suppliers

We purchase items from our suppliers fairly and in good faith, and make every effort to ensure mutually sustainable growth.

► Goals and Results

► Purchasing Policy

► CSR Procurement

### ► Working with our Employees

We are committed to providing the best environment for our employees, so that they feel a sense of personal and professional motivation.

► Goals and Results

► Promoting and utilizing human resources

► Creating an Employee-Friendly Working Environment

► Employee Health

### ► Working with Local Communities

We are committed to working in harmony with local communities on a range of initiatives to ensure that our sites are as open as possible.

► Goals and Results

► Dialog with Local Communities

► Exchange with Local Communities

► Public Recognition

### ► Disaster Recovery Support

Mitsui Chemicals employees continue to engage in volunteer activities as part of our ongoing recovery support

### ► Working with our Customers

We work as a team to meet the needs of our customers here at the Mitsui Chemicals Group, so that we can be of service and help make people's everyday lives easier and more comfortable.

► Marketing “Meister” system

### ► Working with our Shareholders

We provide our shareholders and investors with all the information they need on an ongoing basis, through general meetings of shareholders and other investor relations (IR) activities, in an effort to repay the trust that they have placed in us.

► Goals and Results

► Disclosure of Information to Shareholders

### ► Working with Industry and Academia

We are committed to promoting collaboration between industry and academia, through initiatives such as organizing symposiums and engaging in joint research projects with industrial, government and academic bodies.

► Goals and Results

► Promoting Joint Research and Projects

### ► Social Contribution Activities

We undertake a range of activities in accordance with the Mitsui Chemicals Group Social Activities Policy, in line with the expectations and best interests of our stakeholders.

► Goals and Results

► Nurturing Future Generations

► Disaster Relief

► Support for Employees' Social Contribution Activities

► Support for Intellectual Property Education

efforts following the Great East Japan Earthquake.

► [Report on disaster recovery support following the Great East Japan Earthquake](#)

# Respect for Human Rights

## ▼ Basic philosophy on human rights

**Respect for human rights is one of the fundamental principles that underpin our business activities in Japan and all over the world. The Mitsui Chemicals Group's basic philosophy on human rights is as follows.**

### Basic philosophy on human rights

Here at the Mitsui Chemicals Group, we regard human rights as universal values and make every effort to put people first in all of our corporate activities.

Having signed up to the UN Global Compact in 2008, we are continually working to uphold and promote the ten principles set out therein, which include human rights. The Mitsui Chemicals Group Action Guidelines (February 2006) and the Mitsui Chemicals Group Human Resources Management Policy (January 2007) clearly set out our legal compliance, commitment to respecting diversity and individuality, stamping out discrimination based on gender, race, nationality, age or religion, eliminating all forms of harassment and helping to protect human rights.

Everything we do as a company depends on “people”. That is why we consider our employees to be our most important assets and pay particular attention to the following points.

- ▶ Promoting and utilizing human resources
- ▶ Training and securing global human resources
- ▶ Promoting a work-life balance
- ▶ Work-life balance support schemes
- ▶ Respect for diversity and individuality
- ▶ Employee health
- ▶ Risk Hotline

Although our employees are key stakeholders, we are equally committed to respecting the human rights of all of the stakeholders who are in some way linked to our business activities. As part of our relationship with our suppliers for instance, we have clearly set out the Mitsui Chemicals Group Purchasing Policy and are constantly working to ensure legal compliance, provide equal opportunities and improve transparency, as well as maintaining and promoting fair and impartial business practices. We have also extended our Risk Hotline so that it is now accessible to suppliers and are determined to keep on building stronger partnerships in the future.

 Mitsui Chemicals Group Action Guidelines

## Working with our Customers

### ▼ Marketing “Meister” system

**As a material manufacturer, we don't manufacture many finished products here at the Mitsui Chemicals Group. Nonetheless, we are constantly working as a team to meet the needs of our customers, so that we can be of service and help make people's everyday lives easier and more comfortable.**

We supply “industrial and lifestyle materials” for a more convenient and stable life, “comfort and functional materials” for a safe and full life, “new energy and environmental materials” for a more environmentally friendly life, and “health and high quality materials” for a comfortable, high quality life. We are always talking to our customers, in an effort to provide products and services that offer a greater level of satisfaction. Our goal is to fully understand what our customers want and what they expect of us, so that we can work out what we can do to help and provide solutions.

### Marketing “Meister” system

Competition over cost and quality is becoming increasingly fierce all over the world. In the constantly changing world in which we live these days, it is not just important but absolutely crucial for companies to identify customers' needs quickly and accurately and meet their requirements.

It was with that in mind that we introduced the Marketing “Meister” scheme in July 2010, in an effort to recognize the actions and attitudes of individuals who provide outstanding customer service and serve as an example to other members of the Mitsui Chemicals Group. Marketing is about more than just selling products. It is becoming increasingly important to get more involved than that, to get customers to tell you what they want and what they are struggling with, and to work with them to resolve problems if necessary. As the word “marketing” suggests, you really need to take initiatives focused on the “market.” Here at the Mitsui Chemicals Group, we believe that attitude is crucial to earning the customer's trust and building a close, friendly relationship. We therefore select one or two Marketing Meisters from different divisions every year, based on recommendations from Business Sector General Managers and the approval of Business Sector Directors. We selected 11 members of staff in fiscal 2011, nine in fiscal 2012 and a further seven in fiscal 2013, making a total of 27 to date.

## Working with our suppliers

▼ Goals and Results

► Purchasing Policy

► CSR Procurement

**We purchase items from our suppliers fairly and in good faith, and make every effort to ensure mutually sustainable growth.**

Here at the Mitsui Chemicals Group, we regard all of our suppliers as good partners. We always purchase items from our suppliers fairly and in good faith so as to ensure mutually sustainable growth.

### Goals and Results

#### Goals for Fiscal 2013

- Assist with improvements at suppliers with a score of less than 10 on CSR Procurement Surveys conducted up to 2010
- Look into revising the contents of our next CSR survey based on social conditions, third-party opinions, etc.

#### Fiscal 2013 Results and Assessment

##### Level achieved : A

- Visited 18 suppliers with a score of less than 10 on CSR Procurement Surveys conducted prior to 2010 and assisted with improvements
- Finished examining the questions and format for our next CSR survey with an eye to making questions easier to answer, with reference to the JEITA (Japan Electronics and Information Technology Industries Association) Guidebook and ISO 26000

#### Priorities for Fiscal 2014

- Send out second round of CSR surveys to all suppliers
- Analyze survey results and reexamine methods of assisting suppliers with improvements

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more, C: less than 70%

# Working with our suppliers

► Goals and Results

▼ Purchasing Policy

► CSR Procurement

## Purchasing Policy

As we regard all of our suppliers as good partners here at the Mitsui Chemicals Group, in April 2006 we formulated the Mitsui Chemicals Group Purchasing Policy in an effort to get our suppliers involved in our CSR-oriented purchasing activities. We have been purchasing supplies in accordance with the relevant policy ever since.

### Mitsui Chemicals Group Purchasing Policy

As we rely on our suppliers to help us to enhance the group's corporate value through our purchasing activities, we regard all of our suppliers as good partners. We always deal with our suppliers fairly and in good faith and make every effort to ensure the mutually sustainable development of our corporate activities. As such, all purchasing divisions within the Mitsui Chemicals Group engage in purchasing activities in accordance with the following Purchasing Policy.

#### 1. Legal compliance

We will strictly comply with all laws and social norms as part of our purchasing activities.

#### 2. Equal opportunities and transparency

We will be wide open with our suppliers, both domestic and overseas, and provide equal opportunities for fair trade in good faith.

#### 3. Harmony with the environment

We will endeavor to purchase goods and materials that have less impact on the environment.

#### 4. CSR-oriented selection

When selecting suppliers, we will give priority to and seek to build stronger partnerships with companies that satisfy the following requirements.

- Strict compliance with laws and social norms
- Respect for human rights and consideration for working environments
- Commitment to environmental preservation and safety assurance
- Sound management
- Commitment to maintaining and improving appropriate standards in areas such as quality, price and delivery dates

### Green purchasing

In October 2008, we established a new companywide purchasing system called PRECS and introduced green purchasing for office supplies and equipment. We have expanded the range of office supplies listed in the catalog every year since then, in an effort to offer users greater convenience. This has also led to an increasing number of product categories. Our overall green purchasing rate for fiscal 2013 was 50%.

PRECS was named after an appeal for suggestions from our employees and stands for "procurement" followed by "rigidification" (strict compliance), "efficiency," "control" and "standardization," four key words that form an essential part of our procurement activities.

### Policy on conflict minerals

We are fully aware of our need to address so-called conflict minerals here at the Mitsui Chemicals Group. We have conducted our own investigation and confirmed that we do not purchase or use any conflict minerals associated with inhumane acts committed by armed groups on the ground in the Democratic Republic of Congo or any of its neighboring countries. That includes gold (Au), tantalum (Ta), tungsten (W) and tin (Sn). If it comes to light that we have used any conflict minerals in the future, we will immediately halt procurement of the relevant minerals.

\* In July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act was enacted in the U.S. The act came about as a result of reports regarding serious human rights violations and damage to the environment, stemming from inhumane acts committed by armed groups on the ground in the Democratic Republic of Congo and its neighboring

countries. As this has become a serious international issue, there are growing concerns that trade in conflict minerals could be used to fund armed groups in those countries, either directly or indirectly.



# Working with our suppliers

► Goals and Results

► Purchasing Policy

▼ CSR Procurement

## CSR Procurement

The following is a timeline of our CSR procurement activities.

<b>FY 2007:</b>	Formulated the Mitsui Chemicals Group Purchasing Policy
<b>FY 2008:</b>	Conducted CSR Survey (raw materials)
<b>FY 2009:</b>	Provided feedback on survey results
	Conducted CSR Survey for all other supplies
	Introduced new PRECS* purchasing system and began green purchasing for office supplies and equipment
<b>FY 2010:</b>	Provided feedback on survey results
<b>FY 2011:</b>	Conducted CSR Survey for new suppliers
<b>FY 2012:</b>	Provided feedback on survey results
<b>FY 2013:</b>	Visited 18 suppliers with a survey score of less than 10 and assisted with improvements
	Finished examining questions and format for our next CSR survey

\* PRECS was named after an appeal for suggestions from our employees and stands for “procurement”, “rigidification” (strict compliance), “efficiency”, “control” and “standardization”.

## CSR Survey

The 20 requirements included in our “CSR Survey”, which is due to be conducted in fiscal 2014, are as follows.

### CSR Survey

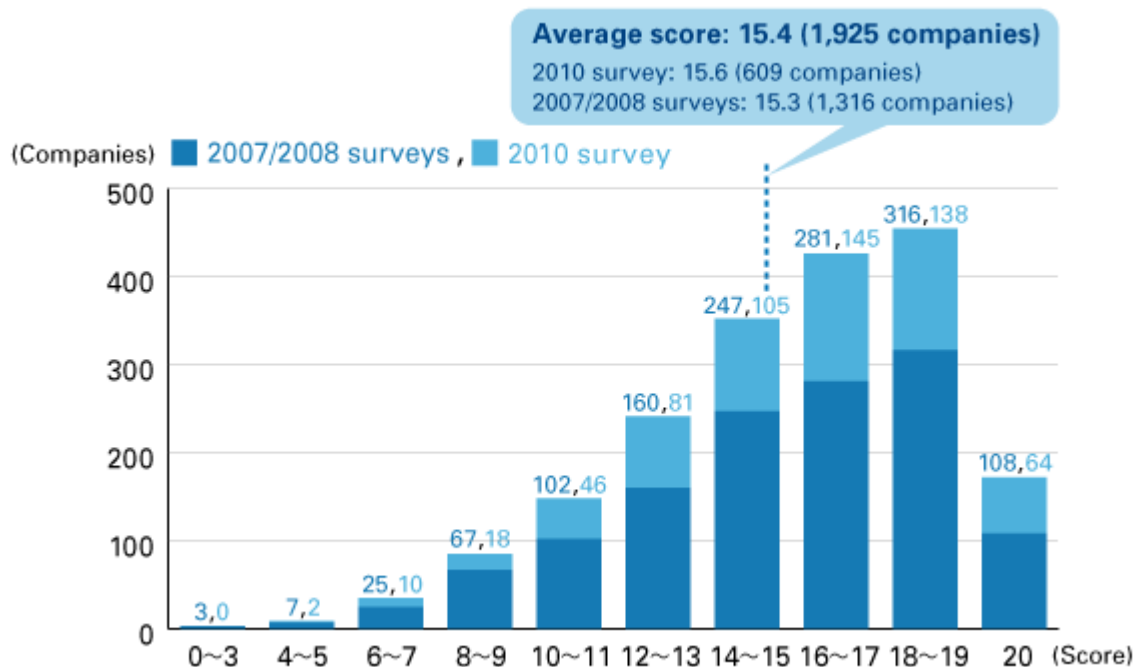
Category		Requirements	
1	Corporate governance/ CSR	1	Has set out management principles, corporate action guidelines, etc. and provides employees with training to ensure legal and regulatory compliance
		2	Takes steps to prevent, quickly detect and respond to illegal acts (internal whistleblowing system (risk hotline), committees, etc.)
		3	Implements a code of conduct, CSR policy, etc. and has an internal framework (responsible departments/directors) in place to promote corporate social responsibility (CSR)
		4	Conducts surveys, etc. to confirm that partners (raw material suppliers, subcontractors, etc.) have in place their own CSR frameworks (respecting human rights, reducing environmental impact, etc.)
2	Fair trade/ ethics	5	Understands anti-corruption legislation (relating to political contributions/donations, bribery, etc.) and provides employees with training in order to prevent unethical relations with government officials, dealings with antisocial groups and organizations, etc.
		6	Does not abuse its position to disadvantage suppliers or engage in conduct that could hinder fair, transparent and free competition Does not give or receive inappropriate benefits to or from concerned parties
			Actively provides and discloses information relating to the company via its website, pamphlets, etc. (details of business activities, finances, results,

		7	environmental activities, damage caused by large-scale disasters, negative impact on the environment and/or society, detection of serious legal violations, etc.)
3	Quality/ safety	8	Provides customers with important information regarding its products and services, including quality, usage instructions and recalls
		9	Has a framework and procedures in place for handling customer complaints relating to the quality of products or services
4	Health and safety/ risk management	10	Maintains an environment in which employees can work safely and healthily, including improving working conditions, taking safety measures and providing health checkups for employees
		11	Monitors and manages risks associated with equipment and processes, including machinery safety measures, minimizing physical impact on employees, and implementing noise and dust control measures
		12	Strives to prevent industrial and unforeseen accidents, and always ensures that the necessary safety equipment and emergency supplies are available in the event of a natural disaster or other emergency
		13	Has pre-arranged procedures in place between all concerned parties in the event of a disaster or accident, including means of contacting the authorities and external measures to protect local residents and customers
		14	Has a clear internal framework in place in the event of a large-scale disaster, including formulating a business continuity plan (BCP), establishing an internal communication network and designating external points of contact
5	Environment	15	Makes an effort to implement energy saving activities, reduce greenhouse gas emissions (prevent global warming), minimize waste, etc.
6	Human rights/ labor	16	Respects universal human rights and makes an effort to prevent human rights violations based on an accurate understanding and awareness of human rights issues
		17	Takes steps to prevent child labor, forced labor and unreasonably cheap labor
		18	Provides employees with training in an effort to eliminate discrimination with regard to recruitment, assignment, training, evaluation or remuneration, based on gender, age, disability, etc.
7	Information/ security	19	Manages its own intellectual property, including patents, copyrights and trademarks, and respects intellectual property belonging to third parties
		20	Adequately manages personal information, including that belonging to customers and employees, and confidential information obtained from customers and other third parties

## CSR Procurement Survey results

We have compiled the results of the first round of surveys, conducted from fiscal 2008 onwards. We have received responses from 1,925 companies to date, with an average score of 15.4 (out of 20). Please see the graph below for full details.

### Score distribution



### Extending Risk Hotline access to suppliers

In July 2010, we extended access to our Risk Hotline internal reporting system to include external parties and provided approximately 1,400 suppliers with details of how to use the relevant service. This means that, if any supplier obtains information relating to issues such as potential compliance violations within the Mitsui Chemicals Group, they can report the matter to our Risk Hotline.

# Working with our Shareholders

## ▼ Goals and Results

## ► Disclosure of Information to Shareholders

In addition to continually enhancing the corporate value of the Mitsui Chemicals Group, through a range of measures aimed at reinforcing corporate governance and increasing management transparency, we also publish information in an appropriate and timely manner and make every effort to repay the trust placed in us by our shareholders and investors.

## Goals and Results

### Priorities for Fiscal 2013

- Continue to improve notices to convene general meetings of shareholders, to make them easier for shareholders to understand
- Use a professional narrator to provide explanations of items covered during the general meeting of shareholders, so that details are easier for shareholders to hear
- Continue the practice of exhibiting products and display panels at general meetings of shareholders and getting directors to provide supplementary information

### Fiscal 2013 Results

#### Level achieved : A

- Sent out notices to convene the general meeting of shareholders at least three weeks in advance and enclosed reference materials to give shareholders a better understanding of the company
- Used a professional narrator during the general meeting of shareholders, to enable shareholders to gain a clearer understanding
- Continued the practice of exhibiting products and display panels at general meetings of shareholders and getting directors to provide supplementary information

### Goals for Fiscal 2014

- Step up promotion and improve the contents of the IR section of our website, for the benefit of individual investors
- Redesign notices to convene general meetings of shareholders, to make them easier for shareholders to read
- Continue to distribute questionnaires following general meetings of shareholders, to enable us to improve shareholder services based on feedback from shareholders

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more, C: less than 70%

# Working with our Shareholders

## ► Goals and Results

## ▼ Disclosure of Information to Shareholders

### Disclosure of Information to Shareholders

#### General Meetings of Shareholders

We regard general meetings of shareholders as an opportunity for frank discussion between our shareholders and management. We are therefore committed to responding openly and clearly to any questions our shareholders may have, to provide a more in-depth understanding of Mitsui Chemicals.

At our general meeting of shareholders on June 25, 2013, we positioned members of staff outside the venue to exhibit and provide information about the Mitsui Chemicals Group's products and CSR activities. After the meeting, board members also took part in discussions outside the venue, providing the opportunity to talk to shareholders in greater depth.

#### Two-way communication with institutional investors and analysts

We actively engage in communication with institutional investors and analysts, to give them a better understanding of our business activities and strategies, through initiatives such as the following.

Twice a year, we organize management briefings led by the President. As well as improving understanding of our management strategies, this provides an opportunity for investors and analysts to talk to members of our management team face to face.

We also arrange online conference calls (telephone briefings) to coincide with the publication of our quarterly results. We post all handouts and audio from these briefings on the Investor Relations section of our website.

We regularly organize business briefings, plant tours and R&D briefings, to offer a more in-depth understanding of our main business activities and strategies. We are always trying to get people better acquainted with Mitsui Chemicals, by inviting them to our operating, production or research facilities so that they can meet our employees and experience our products first-hand, as well as providing information about our business activities.

In an effort to improve understanding amongst individual investors, since fiscal 2012 we have been organizing company briefings to coincide with seminars hosted by securities firms in Tokyo and other major cities around Japan.

#### Investor Relations

#### Publishing IR information

We disclose IR information as and when necessary on an ongoing basis, to give shareholders and investors a better understanding of the Mitsui Chemicals Group.

We post IR information, including summary financial statements, security reports and information subject to timely disclosure, on our website as soon as it has been disclosed (via a press release).

We publish shareholder updates twice a year, outlining our management strategies and business activities in a simple and concise manner. Updates are posted on our website, along with notices to convene general meetings of shareholders and the results of resolutions passed at general meetings of shareholders. We also send out a video message from the President for shareholders and investors twice a year.

We are constantly working to improve the provision of IR information on other fronts too, including releasing documents from briefings for analysts and institutional investors, publishing an annual report, and updating details such as financial highlights and corporate governance.

In fiscal 2013, the IR section of our website was selected by Nikko Investor Relations Co., Ltd. as one of the 111 most comprehensive websites of all listed companies in Japan. We also featured in the top 118 companies for online IR selected by Daiwa Investor Relations Co., Ltd.

#### Investor Relations

### Basic Policy on Profit Sharing

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Our top priority is to expand operations to enhance our corporate value, while we also consider giving profits back to our shareholders to be another of our critical management priorities.

We adopt a holistic approach to profit sharing, including returning profits to our shareholders and increasing retained earnings in preparation for strategic growth and expansion in the future.

We make every effort to provide our shareholders with a return that reflects our consolidated performance over the medium to long term and to pay out dividends on a consistent basis, in line with our consolidated dividend payout ratio and consolidated dividends on equity (DOE). Specifically, we aim to maintain a consolidated dividend payout ratio of at least 25% and a DOE of at least 2%.

We use retained earnings to improve our performance, through initiatives such as actively investing in our business portfolio to facilitate further growth and expansion, and stepping up research and development to create innovative new technologies.

# Working with our Employees

## ▼ Goals and Results

## ▶ Promoting and utilizing human resources

## ▶ Creating an Employee-Friendly Working Environment

## ▶ Employee Health

**We are committed to providing the best environment for our employees, so that they feel a sense of personal and professional motivation.**

Here at the Mitsui Chemicals Group, we are committed to giving our employees a sense of personal and professional motivation, with the goal of helping them to find happiness and self-fulfillment.

We encourage our employees to take good care of their health and make every effort to provide appropriate working environments, placing top priority on occupational health and safety.

## Goals and Results

### Goals for Fiscal 2013

- Continue to encourage a varied approach to work and extend efforts to create more free time
- Identify potential users of childcare and family care support systems, and provide them with the necessary information
- Continue to implement comprehensive disease prevention measures and carry out planned improvements to ventilation equipment

### Fiscal 2013 Results and Assessment

#### Level achieved : A

- Planned and implemented measures to create more free time, based on specific conditions in each workplace (no overtime days, encouraging employees to leave on time, workplace-specific annual leave plans, etc.)
- Organized family care seminars and asked participants to complete questionnaires, in an effort to identify potential users of our family care support system
- Rolled out the Health Mileage Challenge, whereby teams collect “miles” based on the amount of exercise they have done and compete against other teams, on a companywide basis and reduced the number of days off work due to mental health issues
- Continued to carry out planned improvements to local ventilation equipment according to schedule

### Goals for Fiscal 2014

- Continue to encourage a varied approach to work and extend efforts to create more free time
- Look into revising childcare and family care support systems based on potential needs
- Implement comprehensive disease prevention measures and promote workplace-specific exposure prevention measures

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more, C: less than 70%

# Working with our Employees

## ► Goals and Results

## ▼ Promoting and utilizing human resources

## ► Creating an Employee-Friendly Working Environment

## ► Employee Health

### Promoting and utilizing human resources

We try to assign enthusiastic members of staff to positions in which they can make the most of abilities and actively promote human resources who are capable of producing results, in accordance with our Human Resources Management Policy.

#### Human Resources Management Policy

The Mitsui Chemicals Group Human Resources Policy outlines our attitude towards our employees and society as a whole. It is based on the fundamental principle that people need to be treated well, to enable the company and its employees to stimulate and actively enhance one another as they work to create a better future.

We aim to strike a balance between the sustainable growth of the Mitsui Chemicals Group and the happiness and self-fulfillment of our employees. That is the cornerstone of our human resource practices at all of our group companies around the world.

#### Mitsui Chemicals Group Human Resources Management Policy

##### 1. “Always in good faith”

1. The Mitsui Chemicals Group (MCI) will ensure that its employees to “act in good faith” in accordance with its Action Guidelines and will recognize employees who act in that manner, providing them with an appropriate environment to make full use of their abilities.
2. MCI will comply with all applicable labor and employment legislation the world over
3. MCI will disclose details of all regulations relating to the recruitment, assignment, training, evaluation and remuneration of employees and will treat its employees fairly and impartially in accordance with such, ensuring that there is no discrimination based on gender, race, nationality, age, religion or disability.

##### 2. “For people and society”

1. MCI will ensure that its employees act with “high regard for people and society” in accordance with its Action Guidelines and will recognize employees who act in that manner, providing them with an appropriate environment to make full use of their abilities.
2. MCI will protect employees' health and safety in the workplace.
3. MCI will uphold and respect human rights, and will not tolerate any form of harassment.

##### 3. “Dream-inspiring innovation”

1. In order to achieve “dream-inspiring innovation”, MCI will ensure that its employees undertake the following actions in accordance with its Action Guidelines and will recognize employees who do so, providing them with an appropriate environment to make full use of their abilities.
  - Boldly take on new challenges without fear of failure, based on belief in your own potential
  - Enhance your sensitivity in order to create unique, new value
  - See, think and act for yourself
  - Strive to become a world-class professional with a global outlook
  - Help to nurture future generations by passing on your experience and skills
  - Combine individual strengths to create a stronger team through active communication

**4. Taking into account the above requirements, we base our human resource practices on the following principles.**

**Principles for the sustainable growth of  
the Mitsui Chemicals Group**

**Principles for the happiness and self-  
fulfillment of employees**



<b>Organization</b>	Create a strategic organizational structure and allocate the best possible human resources in order to achieve the required strategy	Allocate human resources based on their personal motivation and capabilities
<b>Recruitment</b>	Recruit human resources who are capable of contributing to corporate growth	Provide equal opportunities to motivated and capable human resources
<b>Assignment</b>	Actively promote human resources who are capable of producing results	Allocate human resources to positions in which they can make full use of their motivation and capabilities
<b>Training</b>	Create world-class professionals based on a long-term perspective	Provide employees with the support they need to mold themselves into world-class professionals
<b>Evaluation</b>	Evaluate employees' achievements appropriately	Evaluate employees fairly so as to enhance their motivation and capabilities
<b>Remuneration</b>	Create a remuneration system that is competitive in terms of business costs	Create a remuneration that is competitive in terms of securing motivated and capable human resources

### Overview of human resource management: Relationship between the company and individuals



### Our approach to human resource development

We are constantly striving to achieve innovation and make dreams come true through the power of chemistry here at the Mitsui Chemicals Group, and are committed to the happiness and self-fulfillment of our employees. Our basic approach to human resource development is to provide the optimum environment to our employees who can continually improve their own abilities through dialog with others. We adopt a long-term perspective and aim to create human resources who are capable of making a difference on a global scale. We have a wide range of internal and external programs in place to provide our employees with the support they need to develop their abilities and establish a global outlook.

### Companywide training framework



### Training and securing global human resources

We are committed to training and promoting human resources at Head Office and overseas affiliates to accelerate our global operations. Our training courses for managers at overseas affiliates for instance are attended by around 20 members of staff every year. We are also keen to promote initiatives such as rotation schemes and practical training for both domestic and overseas employees. Our focus is on securing and training human resources who are capable of making a global contribution to the Mitsui Chemicals Group as a whole, so that we can continue to become more competitive.

We also make an ongoing contribution on a regional level, through initiatives such as arranging company visits as part of the Project for Visionary Leaders for Manufacturing in India. Further, we accept interns from countries with close links to Mitsui Chemicals, such as China, Singapore and India, based on our own scholarship programs. We will continue to promote collaboration within the region in the future, as part of our commitment to training and securing human resources with a global outlook.

### Passing on skills and techniques (Plant Operation Technology Training Center)

Since it was established in fiscal 2007, our Plant Operation Technology Training Center in Mobara (Chiba prefecture) has provided training for more than 3,700 employees at all levels, with a focus on new recruits. This reflects our ongoing commitment to passing on essential skills, to ensure safe and reliable operations throughout the Mitsui Chemicals Group, and instilling safety awareness based on first-hand experience. The unique experience-based training that the center provides has received glowing feedback from overseas customers. To date, the center has opened its doors to more than 430 customers from China, South Korea, Singapore, India, Thailand and numerous other countries.

# Working with our Employees

► Goals and Results    ► Promoting and utilizing human resources

▼ Creating an Employee-Friendly Working Environment    ► Employee Health

## Creating an Employee-Friendly Working Environment

We run a range of support programs in order to suit the working environments and lifestyles of individual employees.

### Promoting a Work-Life Balance

Here at the Mitsui Chemicals Group, we regard our employees as crucial stakeholders without whom we couldn't achieve our corporate mission. We are therefore committed to striking a balance between the sustainable growth of the Mitsui Chemicals Group and the happiness and self-fulfillment of our employees. In order to achieve that, our goal is to create a relationship in which the company and its employees stimulate and actively enhance one another.

With that in mind, we have established an employee-friendly working environment complete with a full range of support programs, from childcare and family care schemes, such as reduced work hours, nursing care leave and subsidies for babysitting and home-care services, to welfare support.

We are receptive to our employees' increasingly diverse needs and will continue to make any necessary improvements to working environments in the future, in order to maintain a sense of harmony between life inside and outside work.

### General Business Owner Action Plan in Accordance with the Act for Measures to Support the Development of the Next Generation

On May 21, 2012, we were certified as a "standards-compliant general business owner" and were granted the "Kurumin" next-generation certification mark by the Ministry of Health, Labor and Welfare's Tokyo Labor Bureau, in accordance with the Act for Measures to Support the Development of the Next Generation.

We have always tried to create an environment that is rewarding for our employees, on both a professional and personal level. We have continued to improve conditions based on our employees' increasingly diverse needs, from reduced work hours and nursing care leave and the option to work from home, to subsidies for babysitting and home-care services. The fact that we were granted certification was in recognition for our efforts to formulate and implement action plans for activities such as these.

We are in the process of formulating and implementing a new action plan for the current fiscal year, to create an environment that is supportive of an even wider range of working styles.

We will continue to actively promote a healthy work-life balance in the future, to create a harmonious environment in which employees find their work rewarding and are happy in their private lives.



"Kurumin" next-generation certification mark

### List of Support programs

Time off and leave	<ul style="list-style-type: none"><li>● Nursing care leave</li><li>● Childcare leave (eligibility extended to encourage male employees to take childcare leave)</li><li>● Special leave</li><li>● Family care leave (eligibility extended to enable employees to take leave when family members are certified as being in need of support)</li></ul>
	<ul style="list-style-type: none"><li>● Reduced work hours for childcare</li><li>● Reduced work hours for family care</li></ul>

Working hours	<ul style="list-style-type: none"> <li>• Limitation of overtime (childcare/family care)</li> <li>• Limitation of late night work (childcare/family care)</li> <li>• Work-from-home program (childcare/family care)</li> <li>• Company childcare center</li> </ul>
Income	<ul style="list-style-type: none"> <li>• Maternity pay</li> <li>• Childcare assistance</li> <li>• Family care assistance</li> <li>• Subsidies for home-care services</li> <li>• Subsidies for babysitting services</li> </ul>

### Staff Comment

I took childcare leave for three days last year, when my second child was born, because I wanted to spend time with my family while still remaining committed to my work.

It was easy to arrange under the company's childcare leave scheme, which allows employees to take up to five days paid leave, so I felt good about taking time off.

I only took a few days off, but it really gave me the chance to take a fresh look at myself, and to think about things like the importance of raising children properly, working together as a couple and my self-perception as a parent. As my wife and I both work, we are thankful to the company for creating an environment that enables me to strike a balance between work and family, and for providing such positive support, not least through its childcare leave scheme. I intend to use schemes like this again in the future, so that I can maintain the right balance between my work and my family.



**Reona Kurimoto**  
AI Sales Dept., Mitsui Chemicals Agro, Inc.

### Ichihara Dream Plaza Mitsui Chemicals daycare center

To provide additional support for employees continuing to work whilst raising children, in April 2009 we opened our very own Mitsui Chemicals daycare center near the Sodegaura Center and our Ichihara Works (Chiba prefecture). Although the center started out with just seven children, all 20 places had been filled by the end of fiscal 2010. We increased the center's capacity to 25 children in fiscal 2011.

The center's excellent facilities include a south-facing wall made entirely from glass and under-floor heating. It is the sound of children's laughter however that really brings Ichihara Dream Plaza to life.



Christmas party



Sports day

## Respect for Diversity and Individuality

Our aim here at the Mitsui Chemicals Group is to actively harness diversity and create a company in which each and every employee can put their all into their work. We established the Promotion and Development of Women Team in 2006 and started promoting human resource diversity with an emphasis on gender equality.

In response to a changing environment as a result of rapid globalization, we reorganized activities in fiscal 2012 to include cross-cultural awareness and renamed the team the Diversity Promotion Team, creating a stronger framework through which to actively encourage diversity.

The team's priorities and goals include the following

(1) Promoting a corporate culture that actively encourages diversity

Changing awareness with regard to diversity, through line manager training, educational seminars, etc.

(2) Providing career development support

Promoting female employees to managerial positions and utilizing employees of other nationalities

(3) Helping employees to achieve a work-life balance

Raising awareness on an ongoing basis through activities such as workshops, reviewing childcare and nursing care schemes, expanding measures to create more free time.

We are also committed to creating jobs for disabled people and have achieved the legally required rate of disabled employment (1.8%) for nine years in a row since fiscal 2005, coming in at 1.82% in fiscal 2013. We will continue to improve working environments in the future, so as to create a corporate culture in which disabled employees can put their all into their work.

#### Promoting diversity

	FY 2010	FY 2011	FY 2012	FY 2013
<b>Number of female managers</b>	107	115	125	133
<b>Percentage of female managers</b>	3.20%	3.60%	4.00%	4.15%
<b>Rate of disabled employment</b>	1.91%	1.84%	1.89%	1.82%

# Working with our Employees

## ► Goals and Results

## ► Promoting and utilizing human resources

## ► Creating an Employee-Friendly Working Environment

## ▼ Employee Health

### Employee Health

Here at the Mitsui Chemicals Group, we provide our employees with the support they need to take good care of their health, via industrial physicians, nurses and other healthcare professionals. We believe that healthy employees make for a healthy company. Based on that philosophy, we assign with full-time industrial physicians, nurses and healthcare managers to healthcare sections at our Head Office, Sodegaura Center and all five of our works. We also assign part-time industrial physicians, nurses and other healthcare professionals to our smaller plants and to major plants operated by our affiliates, in an effort to improve the health of all group employees. Once again in fiscal 2013, we continued to focus on preventing mental health conditions and lifestyle-related diseases, and on reducing hygiene risks. We paid particular attention to metabolic syndrome, mental health in younger employees and health risks for employees working overseas.

#### Taking good care of Mitsui Chemicals employees

The Development Bank of Japan (DBJ) has awarded Mitsui Chemicals the highest rank under its DBJ Health Management Rating System. Having been recognized for showing a truly outstanding commitment to the health of our employees, and were presented with a special award as model company on April 25, 2013. As a result of this rating, we have received ¥17 billion in funding under the health management syndicated loan<sup>\*1</sup> scheme arranged by DBJ. The funding scheme is designed so that DBJ assesses companies showing an outstanding commitment to the health of their employees and determines loan terms accordingly.

We have always believed that healthy employees make for a healthy company. Based on that philosophy, we have continued to focus on improving employee health as one of our clear management priorities. This award is in recognition for our efforts to combat metabolic syndrome and activities such as conducting companywide stress surveys and implementing improvement measures based on the results.

The following points in particular were acknowledged.

1. Assigning responsibility and authority for employee health to industrial physicians acting in the role of line manager, in an effort to implement health-related measures more effectively
2. Providing extensive educational opportunities based on the above framework and implementing a wide range of employee health activities in a systematic and energetic manner, in an effort to raise levels of health awareness
3. Publishing information on the above initiatives, including their targets and assessment of progress towards the targets

We will continue to actively promote a healthy work-life balance in the future, to create a harmonious environment in which employees find their work rewarding and are happy in their private lives, and remain committed to organizing activities to improve the health of all group employees.

<sup>\*1</sup> Syndicated loan: Method of funding whereby multiple financial institutions join forces to provide financing based on the same terms, in accordance with a single loan agreement



At the award ceremony



The special award



DBJ Health Rating logo



It is a great honor to have received this special award from the Development Bank of Japan (DBJ) as part of its Health Management Rating scheme. It is particularly gratifying to receive recognition based on such a well thought-out rating and assessment index.

We have positioned employee health as one of our management priorities, in line with our philosophy that healthy employees make for a healthy company. This means that, rather than merely “promoting” employee health, our policies are fully understood and authorized by management as part of our occupational health activities. This enables us to create fully functioning mechanisms spearheaded by industrial physicians and health care sections. We also implement the PDCA cycle on a companywide basis, in order to visualize the results of our activities and identify new priorities. We help employees to set their own objectives and targets too, through medical examinations, as well as providing information and health guidance, so that we can clearly measure the results. I think it's important to have mechanisms like that in place.

The number of days off due to illness has been on the decline since fiscal 2009, as has time off due to mental health issues. We also combine special medical check-ups and cancer screening with regular medical examinations, and have managed to achieve an uptake of nearly 100% (approximately 70% uptake for cancer screening). By helping to detect cancer earlier, this is gradually reducing the number of days off due to cancer care too.

We offer a wide range of activities to improve employees' health, including fitness, yoga and other such classes, our Health Mileage campaign, visceral fat measurement events and our quit smoking program, and are always coming up with new ways to get employees actively involved.

We are determined to keep on improving initiatives in the future.



**Seitaro Dohi**  
General Manager  
Health Management Dept.,  
HR & Employee Relations  
Div.

#### **Message from DBJ**

##### **Enhancing corporate value through human capital**

A new framework in integrated reporting is scheduled to be unveiled at the end of 2013. The report outlines six broad concepts for corporate capital, one of which is “human capital”. Mitsui Chemicals is implementing some outstanding initiatives in the field of employee health, which is one way to create value through human capital. I hope that the company's initiatives will demonstrate how well rounded, robust human capital can be translated into enhanced corporate value or a source of competitiveness.



**Keisuke Takegahara**  
General Manager,  
Environmental Initiative &  
Corporate Social  
Responsibility Support Dept.  
Development Bank of Japan

#### **Reducing Occupational Health Risks**

We are committed to reducing occupational health risks and improving working conditions via the Occupational Safety and Health Management System (OHSAS 18001) scheme and through onsite inspections conducted by industrial physicians and healthcare managers.

Having determined that a total of 815 local ventilation systems were in need of improvement in fiscal 2009, we have been making systematic improvements with an eye to completing work by the end of fiscal 2014. We reevaluated the situation at the end of fiscal 2012 and found that 137 systems were still in need of improvement. We carried out improvements on 79 of those systems over the course of fiscal 2013, leaving 58 outstanding. We will continue to carry out planned improvements in the future, with the aim of completing work in fiscal 2014.

As we are making progress with improvements to ventilation systems, we intend to focus our priorities once again on exposure prevention measures from fiscal 2014 onwards, through initiatives such as training and workplace patrols, aimed at preventing exposure to chemicals and other hazards in the workplace.

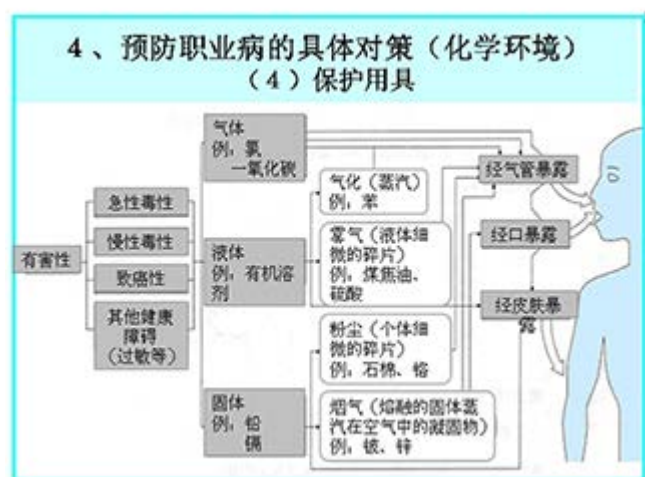
We are also taking steps to minimize occupational health risks at overseas affiliates, and have started to provide

## Chinese training materials

3、有害物质管理与健康障碍预防的原则

	管理对象	管理内容	管理目的	指数	判断标准
1. 作业环境管理	有害物使用量 ↓ 数量物 ↓ 废气中的 量 ↓ 暴露区域 ↓ 体内侵入量 ↓ 生物体反 应	物质的替代 使用形态、使用条件 生产工艺的变更 减少设备装置的负荷 遥控操作、自动化、设 备的密闭 局部排气 整体通风 改善建筑物的结构	抑制数量 隔离  去除、稀释	环境大气中的 浓度  暴露浓度 (暴露量)  生物学监控	管理浓度   暴露限制 (允许浓度 (TLV))  BEI 正常值
2. 作业管理		作业位置、作业方法 作业姿势的管理 时间限制 佩戴呼吸保护用具	暴露限制 (抑制侵入)		
3. 健康管理		配置转换 保健指导 休养与治疗	障碍预防		

要点  
①物质的有害性（允许浓度）、②局部排气装置、  
③作业环境检测、④保护用具



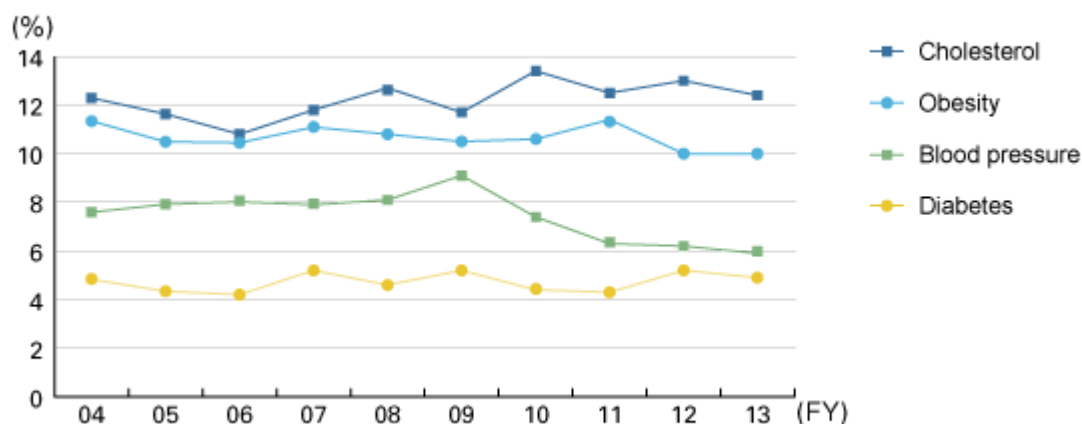
## Health Management

We promote good health via activities such as medical examinations and health guidance, carried out by industrial physicians, nurses and other healthcare professionals.

We are now in our fifth year since we introduced comprehensive medical check-ups, combining regular medical examinations with special medical check-ups and cancer screening. We have achieved an uptake of almost 100% for medical check-ups and managed to increase the rate of special health guidance (aimed at combating metabolic syndrome) from 35% in fiscal 2012 to 55% in fiscal 2013.

Uptake rates for cancer screening totaled 62% for stomach cancer, 99% for lung cancer, 83% for bowel cancer, 84% for prostate cancer, 62% for breast cancer, 57% for uterine cancer and 58% for abdominal ultrasound.

## Positive Diagnosis Results



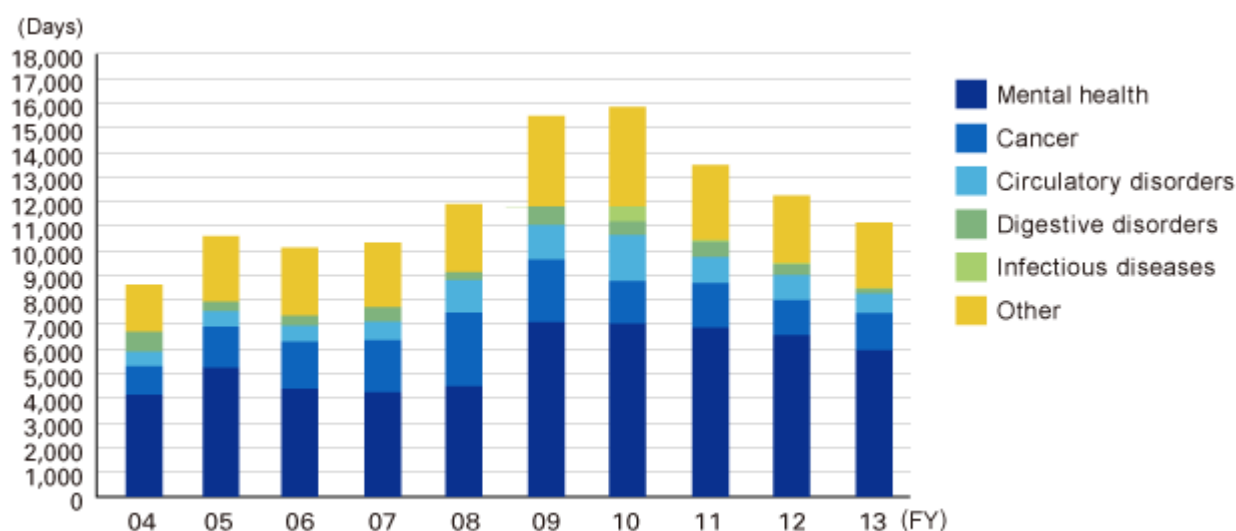
## Mental health initiatives

Once again in fiscal 2013, we continued to implement mental health initiatives such as training (for new recruits, managerial staff, line managers, etc.), interviews with industrial physicians, counseling and e-learning for new recruits. We asked all employees to complete a new workplace stress questionnaire (a combined occupational stress and mental health climate questionnaire), with a far greater emphasis on identifying ideas for improvements in the workplace. We then provided individuals with feedback based on their results and went through results with the relevant manager in each workplace. We have formulated and implemented stress reduction plans (communication improvement plans) in workplaces deemed to be particularly susceptible to high stress levels, and are also working to identify good practices based on workplaces in which there is a positive mental health environment, so that we can roll them out to other workplaces.

As a result, we have seen a clear downward trend in the number of employees suffering from new mental health conditions and relapses compared to fiscal 2011. Following a surge during second half of fiscal 2009, the number of days off work due to mental health issues started to fall in fiscal 2011 and has continued to do so ever since.



## Breakdown of Days Off due to Illness



## A Wide Range of Health Management Programs

We run a range of programs as part of our employee health management activities here at the Mitsui Chemicals Group, primarily through health care sections and our health insurance union.

In fiscal 2013, we once again organized activities such as employee health classes, our Health Mileage Campaign and visceral fat measurement events. In particular, we continued to roll out our Health Mileage Campaign throughout the company and increased the number of employees taking part to 2,037 in fiscal 2013, double the total in fiscal 2012. We also managed to get 1,712 employees to take part in visceral fat measurement events.

## Health Education

Program	Participants
Health Mileage Campaign	2,037
"2,000 km Challenge" and other walking events	2,050
Fitness classes	990
Diet/nutrition classes	350
Sporting events	2,500
Kujukuri Beach Walk (43rd)	167
Mini relay tournament	1,050
Quit smoking challenge	100
Healthy menus in staff canteens	25,000 (meals)
Visceral fat measurement events	1,712

## Outline of our Health Mileage Campaign

## Outline of visceral fat measurement events

このプログラムは、三井化学健康保険組合の補助におまかせしております。

# ヘルシーマイレージ合戦!のご案内

2013年度上期「ヘルシーマイレージ合戦!」(5月~7月) 参加者募集!

ヘルシーマイレージ合戦 (H合戦) も、スタートして5年目に突入! 南田の方とも、参加してより、交流が始まりました! 交流が始まりました! 交流が始まりました!

毎日運動しての方はもちろん、なんが始めたいけどなかなかきついが、と悩んでいる方、この機会に、ぜひ、ご参加下さい!!

運動習慣を身に付けて賞品もGETできる、がんばるときと得するプログラムです!!

チーム参加だと、さらに賞品GETのチャンスが増え、コミュニケーションも促されます!!

さらに今から、**初参加の場合、本人に送る本人にも、お礼の特典があります!**

おご参加したくない、人を誘って、一緒に参加したい方が多いのでは?

※ただし、競争の時に痛みや怪我を訴える等の場合は、ご参加はご遠慮ください。

★下記に簡単にご説明します。  
(詳しくは、Notes掲載版、HM合戦DB内の「H合戦情報交換所」をご覧ください。)

※参加対象者\*  
参加事業所 (8課、地保、大平、地保、地保、地保、地保、地保、地保、地保) に勤務されている方

※参加方法\*  
①チーム参加の個人参加を決め、チームはメンバーを確定  
②NotesのDBからエントリー (チーム参加は代表者が)  
③各自が個人参加決定を行い、自分の入力スタート!!  
④Notesをあまり使わない場合は、Excelでの参加も可能ですのでお気軽にどうぞ!!

※内容\*  
3ヶ月間、いろいろな運動でマイルを貯め、貯めたマイルに応じて賞品をGET!!  
歩いてよし、走ってよし、遊んでよし、楽しみましょう!!

※賞品・競走\*  
4月15日から4月30日まで 5月1日よりスタート 第1ヶ月以内は途中参加でも大丈夫!!

※賞品\*  
○○賞いっぱい、盛りだくさんで用意しています!!  
上だけでなく、いろいろな方にGETのチャンスがあります!!  
皆さんからの声も参考にさせていただきます!! m.l.j.m  
運動量と、距離で出る「豪華賞品」は、お楽しみ!!

皆さまどうぞお楽しみあわせの上、奮ってご参加下さい!!

HM合戦もついに海外進出です!!  
社外からの注目も高まってきています!!  
これまで以上に盛り上げていきたいですね!!  
初参加・復活参加もお待ちしております!!  
(事務局一同)

(参考: 自社の健康室)

A measurement event in progress

# 内臓脂肪たまっていませんか?!

あなたのお腹、測っちゃうぞ!

同年代であなたの内臓脂肪は何位?

内臓脂肪は、お腹の中のほうについている「悪玉体脂肪」。  
皮下脂肪とは違い、外から見えない。一見スリムな人でも「かくれ内臓脂肪肥満」のことがあります。  
X線は使わず、安全に短時間で測定します。

国立京都医療センターの研究活動に協力し、  
**内臓脂肪測定会を開催します。**  
**6月19日(火)~21日(木)** ※時間/9:00~17:00 (19日は10:00~)

会場 場/18階 南9会議室  
※対象者/本社地区三井化学株式会社 (両南東・南東地保) および、MCAG、LANAC、MCBS直轄社員

●ご参加にあたり同意書をお願いいたします。  
●以下の方はご参加いただけません。  
体内臓器(心臓・ペースメーカー)や金属を埋め込んでいる方、妊娠中または妊娠の可能性のある方  
●ぜひ、健康保険証をお持ちください。  
●ご参加中の生活習慣病予防サイト「LUPA」のIDとPASSを発行させていただきます。

35歳以上の方へ

名刺をお持ちいただいた方には、ご自分の脂肪が見られるサイトをメールでご案内します!



Labor relations based on open dialog and mutual understanding

Here at Mitsui Chemicals, we are committed to establishing stable, cohesive labor relations based on the principle of open dialog and mutual understanding. In April 2008, we revised our labor agreement and set out a clear emphasis on cooperation between labor and management in areas such as improving productivity, achieving our Grand Design and developing human resources. We are fully committed to two-way communication and will continue to lay the necessary foundations to provide individual employees with a sense of personal and professional motivation.

# Working with Industry and Academia

## ▼ Goals and Results

## ▶ Promoting Joint Research Projects

**We are committed to promoting collaboration with industry and academia, through initiatives such as organizing symposiums and engaging in joint research projects with industrial, government and academic bodies.**

Here at the Mitsui Chemicals Group, we are committed to promoting collaboration between industry and academia, through initiatives such as organizing symposiums and engaging in joint research projects with industrial, governmental and academic bodies, and establishing a global science network, aiming to contribute to the sustainable development of chemistry and the chemical industry.

## Goals and Results

### Goals for Fiscal 2013

- Send researchers to and promote joint research with research institutes in Japan and overseas
- Provide placements for interns

### Fiscal 2013 Results and Assessment

#### Level achieved : A

- Supported collaborative projects between industry and academia (assisted with a project to develop the world's fastest plastic optical fibers, signed up to the Artificial Photosynthesis Project, etc.)
- Provided placements for interns

### Priorities for Fiscal 2014

- Send researchers to and promote joint research with research institutes in Japan and overseas
- Provide placements for interns

\* Levels of achievement based on self-assessment : A: 95% or more, B: 70% or more, C: less than 70%

# Working with Industry and Academia

## ► Goals and Results

## ▼ Promoting Joint Research Projects

### Promoting Joint Research Projects

We send Mitsui Chemicals Group researchers out to other research institutions, both in Japan and overseas, and promote joint research with industrial, governmental and academic bodies in an effort to develop innovative, commercially viable technologies as quickly as possible. In addition to environmental, resource and energy-related projects, we are also actively involved in the development of new materials in the information and communication sector.

#### Participating in the Development of Fundamental Technologies for Innovative Naphtha Cracking Processes

Mitsui Chemicals is one of the companies participating in the Development of Fundamental Technologies for Green and Sustainable Chemical Processes, a collaborative project between industrial, governmental and academic bodies administrated by the New Energy and Industrial Technology Development Organization (NEDO).

As a part of this project, we have been involved in the development of fundamental technologies for innovative naphtha catalytic cracking processes since it first got underway in fiscal 2010. As such, we are currently working with the Tokyo Institute of Technology, Hokkaido University, Yokohama National University and three other private companies to develop groundbreaking catalysts that will pave the way for increased production of valuable products from naphtha and help reduce CO<sub>2</sub> emissions from the chemical industry.

#### Participating in the Artificial Photosynthesis Project

We have signed up to participate in the Artificial Photosynthesis Project, launched by the Ministry of Economy, Trade and Industry in fiscal 2013.

Following the establishment of the Japan Technological Research Association of Artificial Photosynthetic Chemical Process (ARPCChem) in 2012, a technical development project was launched with the aim of (1) producing hydrogen utilizing photocatalysts, (2) separating hydrogen using membranes, and (3) manufacturing basic chemicals from hydrogen and carbon dioxide. In particular, we are working with other private companies to develop hydrogen production technology (1) and have started work on a joint research project in conjunction with the University of Tokyo, Kyoto University and the Tokyo University of Science.

#### Participating in the Cabinet Office's Funding Program for World-Leading Innovative R&D on Science and Technology

We are currently participating in the Funding Program for World-Leading Innovative R&D on Science and Technology supported by the Japan Society for the Promotion of Science (JSPS), a Cabinet Office project based on collaboration between industry, government and academia. Under the guidance of Professor Yasuhiro Koike from Keio University, the program's core researcher, we are working on the research and development of core photonic polymer technologies for the next generation of plastic optical fibers and displays.

The two main objectives of the program are the development of ultra high speed plastic optical fibers and the development of photonic polymers for high-resolution large-size displays. Through these objectives, we aim at providing the world with materials featuring cutting-edge technologies, connecting remote locations with high-definition video phones and other technologies for face-to-face communication, and creating a communications industry worth around ¥10 trillion.

# Working with Local Communities

## ▼ Goals and Results

## ▶ Dialog with Local Communities

## ▶ Exchange with Local Communities

## ▶ Public Recognition

Here at the Mitsui Chemicals Group, we try to ensure that our sites are as open as possible. We are committed to maintaining dialog with members of the local community at all of our sites, organizing a range of next-generation initiatives for children and the environment, and working in harmony with local communities.

## Goals and Results

### Goals for Fiscal 2013

- Continue to reinforce communication through community meetings

### Fiscal 2013 Results and Assessment

Level achieved : A

- Held community meetings with local residents at all of our works

### Priorities for Fiscal 2014

- Continue to reinforce communication through community meetings

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more, C: less than 70%



# Working with Local Communities

► Goals and Results

▼ Dialog with Local Communities

► Exchange with Local Communities

► Public Recognition

## Dialog with Local Communities

The Mitsui Chemicals Group provides a range of opportunities for communication with local residents living in the vicinity of our facilities, who we consider to be important stakeholders. We arrange community meetings to discuss environmental preservation and safety initiatives in the areas where our works are located, organize plant tours, attend meetings with neighborhood associations and participate in local events, all in an effort to promote mutual understanding with the community.

Our five domestic works also publish newsletters at least twice a year. These are made accessible to local residents so as to enable communication on a broader basis.

### Promoting communication with local communities

Once again in fiscal 2013, we invited local residents living in the vicinity of our five domestic works to come and engage in dialogue with us on a number of occasions. As well as providing an introduction to each works and an overview of our efforts to protect the environment, ensure safety and contribute to society, community meetings also give us an insight into what local people are feeling on a day-to-day basis and enable us to actively exchange opinions, including any requests local residents may have.

We invited the heads of local councils to attend one of our regular meetings at our Ichihara Works on November 15, 2012. We provided an introduction to the company, arranged a tour of the works and engaged in active discussion during the meeting itself.

At our Osaka Works meanwhile, we organized a meeting with the chairman of the local neighborhood association, a representative from the local volunteer disaster prevention association, and various officials from Takaishi City on March 26, 2013. We received valuable input on a range of subjects during the meeting, including environmental activities and earthquake countermeasures.

In addition to tours, meetings and other ongoing activities at our Omuta Works meanwhile, on October 4, 2012 we organized an event to celebrate the 100th anniversary of operations at the works, entitled "Thank you. We are now 100 years old". The event was attended by the Mayor of Omuta and numerous local representatives, and enabled us to take a look back at initiatives we have carried out as part of the community to date whilst at the same time underlining our role as a corporate citizen in the future.

We are equally committed to communication at our domestic affiliates and engage in various activities depending on the scale and location of each of our facilities, including organizing plant tours and taking part in local events. Ongoing group company initiatives such as these help us to promote mutual understanding with the local community.

**Omuta NEWS, a newsletter commemorating the 100th anniversary of our Omuta Works**



The meeting in progress



## Publishing newsletters

We publish newsletters at each of our works, focusing on their respective activities. As well as showcasing products manufactured at each works, newsletters mainly provide information on subjects such as applications and progress with environmental initiatives. All of our works' newsletters are designed to capture the essence of the local area, with features such as helpful health tips, methods of conducting chemical experiments and information about our environmental improvement and cleanup activities. We also use our newsletters to promote two-way communication, by printing comments from members of the local community and our responses.



Local newsletters published by each works



# Working with Local Communities

► Goals and Results

► Dialog with Local Communities

▼ Exchange with Local Communities

► Public Recognition

## Exchange with Local Communities

Here at the Mitsui Chemicals Group, we are aware of our role as a member of the community and actively promote exchange with local residents.

### SMPC organizes “Children’s Day” in Thailand

Thailand-based affiliate Siam Mitsui PTA (SMPC) organized a “Children’s Day” as part of its CSR activities. Employees went out to visit elementary schools in the surrounding area, in an effort to promote exchange with local children through activities such as giving out presents and playing games.



Giving out presents to children



Having fun playing games with children

### SMPC organizes “One Team One Project” activities in Thailand

Siam Mitsui PTA (SMPC), one of our affiliates in Thailand, runs an in-house initiative called “One Team One Project”, aimed at encouraging employees to get involved in CSR activities. This year, 36 employees were divided into nine teams, with each team then planning its own individual project. School-based projects included activities such as repainting and repairing playground equipment. We hope even more employees will get involved through CSR activities such as these in the future.



Employees with pupils at a local school



Repairing playground equipment

### “Cleanup in Kujukuri” cleanup activities along Kujukuri Beach

The “Cleanup in Kujukuri” campaign has been up and running since 2006. Taking place for the seventh time this year, on Saturday August 4, 2012 we once again organized cleanup activities along Hitotsumatsu beach on the Kujukuri Beach (Chiba prefecture) in conjunction with the NPO Japan Professional Rescue Organization.

Although a scheduled seine fishing event had to be cancelled due to low pressure, 120 employees and their families nonetheless came along and managed to collect around 120 kilograms of garbage in the space of just one hour.

As with previous years, we also organized an onsite panel display on the marine environment and a range of fun summer activities for children, including making handicrafts from shells and playing suika-wari (watermelon splitting). We intend to keep on taking part in this campaign in the future, to help preserve the local environment and raise levels of environmental awareness amongst our employees.



Employees picking up garbage



Group photo of everyone who took part

### **Daijaya Festival and cleanup activities (“Cleanup in Daijaya”)**

Every year at our Omuta Works (Fukuoka prefecture), we take part in the “10,000 People Dancing” event during the local Omuta Daijaya Festival, a summer festival with a history dating back over half a century. As 2012 was also the 100th anniversary of operations at the Omuta Works, we got together a team of around 200 employees to take part in the event, including some from affiliates and partner companies as well as the Omuta Works itself.

As always, participating employees also carried out cleanup activities after the dance was over, picking up garbage from roadside areas and amongst plants, in an effort to help make the local environment more beautiful.



Group photo at Daijaya Festival



Employees dancing at Daijaya Festival



Cleanup activities after Daijaya Festival

### **“Lake Biwa Day” cleanup activities**

On June 29, 2012, employees from the Agrochemicals Laboratory at our affiliate Mitsui Chemicals Agro (Yasu, Shiga prefecture) took part in environmental improvement activities organized by Shiga Prefecture as part of Lake Biwa Day. The 52 employees who took part in what has now become an annual event walked through the area around the company's premises and collected garbage along the way, including seven kilograms of burnable waste, two kilograms of plastic bottles and other plastic waste, and five kilograms of metal.

On June 3, 2012, members of the Agrochemicals Laboratory at Mitsui Chemicals Agro also took part in environmental improvement activities as part of the “Zero Garbage Campaign” (Yasu City lakeside cleanup activities on Ayame beach), along with other local companies.



Employees picking up garbage near company premises



Families taking part in the “Zero Garbage Campaign” on Ayame beach

### Exchange with Hope Elementary School in Anhui Province, China

As part of activities to celebrate the company's tenth anniversary, Mitsui Chemicals (Shanghai) (MCS) donated the necessary funding to rebuild aging buildings at Hope Elementary School in Anhui Province in China in 2010, in conjunction with Mitsui Chemicals Head Office.

Having first presented the school with stationery and items such as desks and chairs in 2010, we have continued that practice right up to the present day. We have also contributed to the development of the school's exercise grounds. As well as providing ongoing support, we intend to keep on contributing to the local area in the future through exchange between Hope Elementary School students and employees at MCS.



Completion ceremony for the rebuilt school



The school grounds under construction



# Working with Local Communities

## ► Goals and Results

## ► Dialog with Local Communities

## ► Exchange with Local Communities

## ▼ Public Recognition

### Public Recognition

Here at the Mitsui Chemicals Group, we are committed to a wide range of initiatives both in Japan and overseas, including improving safety standards, reducing environmental impact and contributing to community development. As a result of such initiatives, we have received a number of awards and commendations in recognition of our achievements.

On the domestic front, we received a Smart Life Project Award, in recognition of our efforts to raise awareness regarding prevention of lifestyle related diseases. We have also been working to improve the overall health of group employees through initiatives such as medical examination and health guidance, based on philosophy that healthy employees make for a healthy company.

Elsewhere in the world, group companies such as Mitsui Hygiene Materials (Thailand) and Thai PET Resin have received a number of awards in recognition of their CSR and environmental activities, including from the Thai Ministry of Industry.



Smart Life Award ceremony



Award ceremony

### Main outside awards in FY2013

Recipient	Award	Reason for award	Awarding body
Mitsui Chemicals (Head Office)	Smart Life Project Award Award for Outstanding Achievement	Awarded for raising awareness regarding prevention of lifestyle related diseases, and outstanding healthy living initiatives	Ministry of Health, Labour and Welfare
Mitsui Chemicals (Head Office)	Health Management Rating (Special Award)	Awarded for showing an outstanding commitment to employees' health	Development Bank of Japan
Mitsui Chemicals (Head Office/branches)	JCIA Effort Award	Awarded for reducing CO2 emissions, including through energy saving initiatives and efforts to use alternative fuels at all works	Japan Chemical Industry Association (JCIA)
Mitsui Chemicals (Osaka Works)	Osaka Prefecture Refrigeration Safety Association Chairman's Award	Awarded for outstanding achievements in terms of securing refrigeration equipment and preventing accidents	Osaka Prefecture Refrigeration Safety Association

Mitsui Chemicals (Osaka Works)	Osaka Prefecture “No Accidents, No Violation Challenge” Special Award for Achievement (household category)	Awarded for participating in the challenge for five consecutive years and consistently achieving outstanding results (no accidents or violations)	Osaka Prefecture Traffic Safety Association
Mitsui Chemicals (Osaka Works)	Commendation for Outstanding Handling of High-Pressure Gas	Awarded for outstanding achievements in terms of securing high-pressure gas and preventing accidents	Osaka High-Pressure Gas Safety Association
Mitsui Chemicals (Mobara Branch Factory) (Koya Kajiuro/Kazumasa Kumashiro Team)	36th Respiratory Apparatus Training Director's Award, Chiba Labour Bureau, Ministry of Health, Labour and Welfare Fourth place (30 teams)	Awarded for outstanding results in training	Chiba Prefecture High Pressure Gas Safety Institute
Mitsui Chemicals (Nagoya Works)	Certificate of appreciation	Awarded for understanding, assisting with and contributing to police activities	Chief, Minami Police Station, Aichi Prefectural Police Department
Amoco Mitsui PTA (Indonesia)	Green Industry Award	Awarded for environmentally friendly business activities	Ministry of Industry
Mitsui Hygene Materials (Thailand)	CSR-DIW Continuous Award	Awarded for implementing CSR activities in accordance with DIW guidelines	Department of Industrial Works(DIW)
Mitsui Hygene Materials (Thailand)	Green Industry Award	Awarded for conducting business activities in line with Green Industry standards	Department of Industrial Works(DIW)
Thai Pet Resin (Thailand)	Green Industry Award	Awarded for conducting business activities in line with Green Industry standards	Department of Industrial Works(DIW)
Thai Pet Resin (Thailand)	Zero Accident Award	Awarded for maintaining a zero accident record for over one million hours	Ministry of Labor
Thai Pet Resin (Thailand)	SHE & CSR Gold Star Award	Awarded for conducting business activities with an emphasis on safety, health and the environment	Map Ta Phut Industrial Estate Committee (Thailand)
Grand Siam Composites (Thailand)	National Manufacturing Safety Award	Awarded for maintaining an outstanding record in safety, hygiene and the environment	Ministry of Labor
Grand Siam Composites (Thailand)	Award for Good Governance in Environment	Awarded for implementing outstanding environmental initiatives	Rayong Province
Tianjin Cosmo Polyurethane (China)	Award for Harmonious Labor-Management Relations	Awarded for maintaining healthy relations between labor and management	Social Security Administration
Tianjin Cosmo Polyurethane (China)	Award for Safe Production	Awarded for achieving a zero accident record	State Administration of Work Safety

## Social contribution activities

### ▼ Goals and Results

### ▶ Nurturing Future Generations

### ▶ Disaster Relief

### ▶ Support for Employees' Social Contribution Activities

### ▶ Support for Intellectual Property Education

### We carry out a range of activities in accordance with the Mitsui Chemicals Group Social Activities Policy.

The Mitsui Chemicals Group is committed to facilitating social development and helping to resolve issues facing society through a range of initiatives under our Social Activities Policy, including initiatives suggested and organized by employees themselves. We believe that we can effectively help to resolve social issues by harnessing our strengths and unique characteristics as a chemical company. With that in mind, we incorporate our chemical technologies and products into a wide range of activities, such as chemistry lab classes and disaster relief efforts.

We encourage our employees to get involved in social contribution activities and operate a donation fund that is run by employees on a voluntary basis.

## Goals and Results

### Goals for Fiscal 2013

1. Increase the number of employees taking part in activities via existing and new social contribution programs
2. Provide ongoing support for those affected by the Great East Japan Earthquake

### Fiscal 2013 Results and Assessment

#### 1. Level achieved: A

Extended the One-Coin Club voluntary fund to include major affiliates and increased the number of employees signing up to over 10%

#### 2. Level achieved: A

- Organized "Adventure Class in Wonder-Chemistry" laboratory classes as part of social activities in conjunction with NPOs
- Donated the proceeds from selling charity lunches in staff canteens to NPOs working in the area affected by the earthquake

### Priorities for Fiscal 2014

- Increase the number of employees taking part in activities via existing and new social contribution programs
- Look into sustainable support for those affected by the Great East Japan Earthquake

\* Levels of achievement based on self-assessment: A: 95% or more, B: 70% or more, C: less than 70%

### Mitsui Chemicals Group Social Activities Policy

The Mitsui Chemical Group will continually strive to:

1. Harness and improve its chemical technologies to contribute to society as a whole
2. Work in harmony with local communities and ensure that its sites are as open as possible
3. Do its bit to nurture future generations, on whose shoulders the future rests
4. Carry out activities aimed at protecting the environment
5. Engage in active international exchange and cooperation
6. Create a corporate environment in which individual employees can actively participate in social activities

## Social contribution activities

► Goals and Results

▼ Nurturing Future Generations

► Disaster Relief

► Support for Employees' Social Contribution Activities

► Support for Intellectual Property Education

### Nurturing Future Generations

The future rests on our children's shoulders. With that in mind, we carry out various activities aimed at teaching children that chemicals are all around us, and showing them how fun, interesting and mystifying chemistry can be, as well as getting them interested in chemical technologies, and inspiring them to create the technologies of the future. This section outlines our Adventure Class in Wonder-Chemistry series of laboratory classes for children and our internship schemes, the aim of which is to teach interns about the nature of chemistry, and about chemical plants and complexes and how they harness the power of chemistry to produce a range of products, through study programs at our works and other facilities.

#### Adventure Class in Wonder-Chemistry

We started the Adventure Class in Wonder-Chemistry because we wanted to share the fun and possibilities of chemistry with future generations of children. Since 2006, we have organized various types of classes, from off-site classes, whereby members of staff from each of our sites go out to local schools, summer-vacation events and festivals, to laboratory classes combined with tours round our works and research centers. In fiscal 2013, we organized a total of 30 classes at 11 sites.

We are always trying to come up with new ways to teach children about chemistry in a fun and easy- to-understand context. Activities at each of our sites are based on the theme of chemistry in our everyday lives, to make children feel closer to chemicals through fun experiments. The aim is to show children just how crucial chemicals are in their everyday lives and to demonstrate what they can achieve with the power of chemistry. More than 4,000 children took part in classes over the course of fiscal 2013. We have received feedback on classes from lots of children, including comments such as "I like science a lot more now" and "I'm going to try this experiment again when I get home".

In 2012, we also joined forces with an NPO to organize a series of four laboratory classes in the area affected by the Great East Japan Earthquake (Minamisanriku, Miyagi prefecture), to help put a smile back on the faces of children living there.

#### The logo used for laboratory classes



Concentrating on experiments



Explaining an experiment

#### Adventure in Class in Wonder-Chemistry classes in fiscal 2013

Dates	Location	Type of event, title or venue
Jun. 6	Omuta Works	Off-site class : Hirabaru Elementary School
Jun. 15	Omuta Works	Off-site class : Hayamadai Elementary School
Jun. 28	Omuta Works	Off-site class : Omuta Elementary School
Jun. 30	Ichihara, Sodegaura	Class and exhibition : Laboratory class for children living in company housing (activities planned based on Dream



		Chemistry 21)
Jul. 12	Omuta Works	Off-site class: Shirakawa Elementary School
Jul. 21	Head Office	Off-site class : Yabe Elementary School
Aug. 4-5	Kanto Region	Class and exhibition: Dream Chemistry 21 Children's Chemical Experiment Show (Japan Chemical Industry Association)
Aug. 3	Nagoya Works	Tour and laboratory class : Takara School District Children's Association
Aug. 7	Nagoya Works	Tour and laboratory class: Hakusui School District Children's Association
Aug. 8	Nagoya Works	Tour and laboratory class Honan School District Children's Association
Aug. 23-24	Sodegaura Center	Tour and laboratory class : Local elementary school children
Aug. 26	Ichihara Works	Class and exhibition : Local festival
Sept. 9	Ichihara Works, Sodegaura Center, Mobara Branch Factory	Class and exhibition: Works autumn festival
Sept. 29	Kanto Region	Class and exhibition: Minamisanriku, Miyagi prefecture (support for area affected by earthquake)
Oct. 13	Kanto Region	Class and exhibition: Minamisanriku, Miyagi prefecture (support for area affected by earthquake)
Oct. 13	Mobara Branch Factory	Tour and laboratory class : Employees'children and families (including children's groups), Ichinomiya Children' Association
Oct. 21	Osaka Works	Class and exhibition : Takaishi Chamber of Commerce & Industry Festival
Oct. 23	Omuta Works	Off-site class : Yoshino Elementary School
Oct. 27	Ichihara Works	Class and exhibition : Kazusa Festival
Oct. 27	Nagoya Works	Class and exhibition : Works autumn festival
Oct. 28	Iwakuni-Ohtake Works	Class and exhibition : Youngster's Science Festival (Hiroshima meet)
Nov. 4	Omuta Works	Class and exhibition : Autumn Festival
Nov. 11	Osaka Branch	Off-site class: Saitonisi Elementary School
Nov. 13	Omuta Works	Off-site class : Miike Elementary School
Nov. 18	Head Office	Class and exhibition : Shiodome City Center Family Day
Nov. 22	Omuta Works	Off-site class : Tenryo Elementary School
Nov. 28	Mobara Branch Factory	Off-site class : Hayano Junior High School
Nov. 30	MC Industries & Japan Composite	Off-site class: Shimizu Komagoe Elementary School
Jan. 18	Ichihara Works	Off-site class : Industrial chemistry class for industrial high schools in Chiba
Mar. 27	Head Office	Off-site class : Family tour for employees working at Head Office

### Adventure Class in Wonder-Chemistry experiments

\* Experiment titles are subject to change

No.	Experiment title	Field/area/format			Description
1	Foamy urethane experiment	Chemistry	Chemical reactions	Demonstration MCI products	Participants watch urethane, whose uses include cushion materials, specially designed pillows and refrigerator insulation, being foamed and experience reaction heat and differences in hardness
2	Slime <ul style="list-style-type: none"> <li>• Making your own slime</li> <li>• Making jumbo slime together</li> <li>• Shiny slime</li> <li>• Slime ball</li> </ul>	Chemistry	Polymer properties	Hands-on	Participants learn about the principles of dilatant fluid and confined water, by making sticky, stretchy, mysterious “slime” (i.e. cross- linking polyvinyl alcohol, water and borax)
3	Light experiments with polarizing plate	Physics	Light	Hands-on	Participants learn about the passage of light through a polarizing plate with an element that converts natural light into linear light, as used in mobile phones and other such devices, by making a kaleidoscope
4	Chromatography art	Chemistry	Adsorption and separation	Hands-on	Participants learn that the ink in a water-based pen contains a mixture of various different colors (pigments)
5	Plastic board	Chemistry	Polymer properties	Hands-on	Participants learn about the properties and separation of plastics, by using the heat-shrinkable properties of polystyrene to make their own original accessories (key holders)
6	Cartesian divers	Physics	Buoyancy	Hands-on	Participants learn about buoyancy and pressure, by making a Cartesian diver from a PET bottle and a plastic soy sauce container
7	Red cabbage color experiment	Chemistry	Acid and alkali	Hands-on	Participants learn about chemical analysis and the properties of acids and alkalis, by extracting anthocyanin from red cabbage and investigating the properties of everyday liquids
8	Spongy polymers	Chemistry	Polymer properties	Hands-on Related to MCI products (non-woven fabric)	Participants learn about the principle of water retention, by making an air freshener from a water-absorbing polymer, as used in disposable diapers, gardening supplies and other such products
9	Rainbow tower	Physics	Specific gravity	Hands-on	Participants learn about the specific gravity (relative density) of fluids, by pouring colored waters with varying concentrations together to make a tower
					Participants learn about the

10	Let's make a freezer!	Chemistry	Heat of solution	Hands-on MCI products (urea)	principle of heat adsorption via the heat of solution of urea, as used in such products as fertilizer and moisturizing cream
11	Learn how bubble bath works!	Chemistry	Reaction of acid and salt	Hands-on	Participants learn about how carbon dioxide is produced, by making bubble bath from baking soda and citric acid
12	Learn about acid rain!	Chemistry	Acid and alkali Oxidation/ reduction	Hands-on	Participants learn about acid rain and what causes it, by measuring the pH of red cabbage extract and conducting a bleaching experiment using iodine
13	Let's make paper!	Technology	Making paper/ recycling	Hands-on Related to MCI products (acrylamide)	Participants learn about how paper is made and recycled, by experiencing papermaking using everyday implements
14	Let's make stickers from melted plastic!	Chemistry	Polymer properties	Hands-on Related to MCI products (general thermoplastics)	Participants learn about the properties of thermoplastics, which melt when heated, by using a glue gun to melt resin and make stickers
15	Experience the wonders of shrinking films!	Chemistry	Polymer properties	Hands-on Related to MCI products (film, PET, etc.)	Participants learn about the principle of heat shrinkage, by making their own PET bottle from shrinkable film, as used for PET bottle labels and packaging materials
16	See the power of air! (air cannon experiment)	Physics	Hydrodynamics	Demonstration	Participants learn about air resistance, by observing air rings emitted from an air cannon
17	Let's make snow on pinecones!	Chemistry	Crystals	Hands-on MCI products (urea)	Participants learn about crystal deposition, by observing dissolved urea being sprayed onto pinecones and drying
18	Let's make light like a firefly!	Chemistry	Enzymes	Hands-on	Participants learn about the difference between bioluminescence and chemiluminescence by making light from luciferase enzymes taken from fireflies and using mineral-based chemicals

#### Handouts explaining experiments

# ホタルのひかりをつくろう!

**ホタルのひかりを観察しよう!**

◆実験内容◆

① 酵素と酵素を混ぜよう!  
光らせる物質(酵素)  
光る物質(酵素)

② 部屋を暗くして観察してみよう!

何で光るのかしら?

ホタルは 体内にある「発光器」を光らせて、暗い夜の中で会話をしている。オスはメスにフロポーズするんだ!

◆なぜなぜ解説◆

光る物質(酵素) + 光らせる物質(酵素) = ピカッ!

ホタルの体内で、光る物質(酵素)と光らせる物質(酵素)が反応して、黄緑色の光をはなつんだよ!  
ホタルは、体の中でこれらの物質をつくり出しているんだ!

**自然界のいろんな発光生物**

自然界には、光をつくる生物が、たくさんいるんだね。ウミホタルはピカッした時、体の中から青い発光液を放出して遊べるんだ!

オワンクラゲ      チョウチンアンコウ      ウミホタル

身の回りにある『酵素』を利用した製品

『酵素』を利用して生産した三井化学の製品群

**日用品**

- 食器用洗剤
- 洗濯用洗剤 など...

**食品**

- お酒(ビール・日本酒)
- ヨーグルト
- 納豆
- みそ・しょうゆ など...

**化学製品 (炭素分工場)**

- ・ アクリルアミド (紙力増強剤、高分子凝集剤)
- ・ メタクリルアミド (繊維加工剤、樹脂原料)

**医薬原料 (大牟田工場)**

- ・ L-セリン (点滴の成分)
- ・ D-セリン (くすりの原料)

身の回りには、様々な機能をもった『酵素』が使われているんだ!

例えば、洗剤には、油やタンパク質を分解する『酵素』が使われているんだよ!

三井化学でもいろんな酵素を利用して様々な製品を作っているんだね!

アクリルアミドは、水をキレイにする高分子凝集剤の原料なんだ!

**おみやげの注意**

- 乾燥ウミホタルはたべられません。
- 実験後、手をよく洗ってください。
- 使い終わった器具は、燃えるゴミとして捨ててください。

※ゴミの分別は住んでいる自治体の決まりに従いましょう。

**注意事項**

保護者のみなさま  
本日、実験で使った試薬は危険なものではありません。  
試薬が衣服についた場合、通常の洗濯方法で問題ありません。

ふしぎ探検隊

御来れ! 未来の科学者たち

お問い合わせ先: 三井化学株式会社 広報課 TEL 03-6253-2383 FAX 03-6253-4245

Mascots used in laboratory classes



## Organizing a family tour

In an effort to get employee's families better acquainted with Mitsui Chemicals, and to get their children to take an interest in chemistry through our Adventure Class in Wonder-Chemistry laboratory classes, we organized a Family Tour at our Head Office in March this year, during spring break.

The tour got underway with an Adventure Class in Wonder-Chemistry laboratory class using urethane and urea, both of which are products made by Mitsui Chemicals. Participants watched as members of staff produced urethane right in front of them. They then got to touch it, so that they could feel its warmth and see for themselves that urethane can be both soft and hard. They also learnt about the various ways that urethane is used in everyday life. Another experiment involved spraying urea dissolved in water onto pinecones. Participants then watched with fascination as the pinecones began to look like they were covered in snow.

After finishing the experiments and having some lunch, the children finally got to see where their mothers and fathers work. Visiting the workplace for the first time, they seemed to find everything interesting. Their mothers and fathers explained everything enthusiastically, making the most of such a golden opportunity to talk to their children about their work. The final stop on the tour was the executive floor. After a visit to the president's office, the children gathered around the large desks in the main meeting room and shared their thoughts on the day. Comments included "the experiments were really interesting!" and "I loved exchanging business cards!" Other family members commented that the day was "an invaluable experience" and said that they



Laboratory experiments using urethane



Laboratory experiments using urea



would like to take part in such events again. It turned out to be a great opportunity for families to learn more about Mitsui Chemicals.



Children in the meeting room

### Placements for interns

Here at the Mitsui Chemicals Group, we offer internship and work experience placements for students all over the world. Learning through actual experiences in the workplace provides an invaluable opportunity. It enables young people, on whose shoulders the next generation depends, to learn things that they could never learn in the classroom, including what goes on within a company, what specific products are made, and how they are made.

In August 2012, we provided a placement for one second-grade industrial chemistry student from Fukuoka Prefectural Miike Industrial High School at the Omuta Plant operated by our affiliate Yamamoto Chemicals. He received four days of training, experiencing manufacturing right on the frontline.

After finishing his internship, the student had the following to say.

“Thank you very much for giving me a four-day work experience placement at Yamamoto Chemicals' Omuta Plant. It was an invaluable experience to be able to look round the plant and use equipment such as the gas chromatograph. I learnt what the plant actually manufactures and started to understand the basics of how a chemical plant works. I was surprised to learn that Yamamoto Chemicals is the only company that makes AAQ. I learnt about the importance of communication skills and teamwork when it comes to getting a job. I know now that you can't produce good quality AAQ without good teamwork. When I go out into the workplace, I will definitely pay close attention to communication skills and teamwork. I am determined to make the most of this work experience placement in the future. Thank you for everything during these four days.”



Intern Kei Otsubo  
(front row, second from right)

## Social contribution activities

► Goals and Results

► Nurturing Future Generations

▼ Disaster Relief

► Support for Employees' Social Contribution Activities

► Support for Intellectual Property Education

### Disaster Relief

Whenever a major disaster occurs, we make every effort to engage in relief activities and provide support for social and charitable organizations, making the most of our strengths and unique characteristics as a company.

#### Disaster Relief Activities

Our disaster relief activities here at Mitsui Chemicals originated from suggestions submitted by employees, who wanted to help those affected by earthquakes and other major disasters by providing them with useful Mitsui Chemicals products. In fiscal 2010, we set up warehouses to store relief supplies at two of our sites – the Iwakuni-Ohtake Works (Yamaguchi prefecture) to cover west Japan and the Mobara Branch Factory (Chiba prefecture) to cover East Japan – and put in place the necessary framework to send out supplies upon request from local governments and other such organizations. We currently have stockpiles of items such as polyurethane mattresses (cushioned materials to lay on the floors of gymnasiums being used as evacuation shelters), food wrap (to enable dishes to be wrapped and reused in situations where water is scarce, so that they don't have to be washed), plastic water tanks (to store drinking water) and waterproof tarps (to cover buildings damaged by water or landslides) at both of these warehouses and are ready to send them out whenever necessary.

As well as sending emergency relief supplies to the area affected by the Great East Japan Earthquake in March 2011, we also provided local authorities with supplies following the Niigata Chuetsu Earthquake in 2007 and have respond similarly to requests from local authorities dealing with torrential rains. We have always tried to do our bit to assist those living in evacuation shelters.

Obviously, it would be preferable if disasters such as these never occurred, but if the worst does happen, then we are committed to providing disaster relief closely in line with people's needs in the affected area, by listening to what emergency supplies local authorities actually want for instance.

#### Disaster Recovery Support

#### Mitsui Chemicals' emergency relief activities



\*MCI : Mitsui Chemicals, Inc.

## Social contribution activities

### ► Goals and Results

### ► Nurturing Future Generations

### ► Disaster Relief

### ▼ Support for Employees' Social Contribution Activities

### ► Support for Intellectual Property Education

## Support for Employees' Social Contribution Activities

Since fiscal 2009, we have had two programs in place to provide support for employees participating in social contribution activities; the One-Coin Club (a donation fund that employees contribute to directly from their wages) and a social activity leave program. In 2011, we introduced a special leave system to help employees get involved in voluntary relief activities. These programs are designed to raise awareness of social issues and provide support for employees who independently contribute to society.

### One-Coin Club

We set up the One-Coin Club in November 2007. Employees who join the club choose an amount to be deducted from their wages or bonuses, which is then donated to organizations involved in social activities.

The club currently has around 850 members, who between them donated approximately ¥5.8 million to the fund in 2012. Donations were given to a total of 15 organizations involved in a range of social activities, based on proposals submitted by employees. Before being selected, organizations are reviewed by the One-Coin Club Management Committee, a voluntary panel made up of club members.

The club also makes relief donations following earthquakes, floods or other large-scale disasters. Donations to date have included the 2008 Sichuan Earthquake in China and the Great East Japan Earthquake in 2011.

In January 2013, the club was presented with a plaque by EDF-Japan\*, in recognition of its ongoing support from 2009 onwards.



The plaque presented by EDF-Japan

\* Organization set up to provide support for poverty stricken children who have been unable to finish their basic education in northeastern Thailand, Laos and Cambodia

### Organizations supported by the One-Coin Club in fiscal 2013

In fiscal 2013, we donated a total of ¥6 million in support of the following organizations and activities, via the One-Coin Club and matching donations from the company\*.

\* The matching donation scheme is designed to encourage employees to get involved in social contribution activities. Whenever an employee makes a donation to a social or environmental organization, the company matches it with a donation of the same amount.

Organization (no particular order)	Donations
Japan Association for the United Nations World Food Programme	2008-2012
Vaccines for the World's Children (Japan Committee)	2008-2012
Guide Dog & Service Dog Association of Japan	2008-2012
EDF-Japan	2009-2012
ASHINAGA	2009-2012
Nanbyonet	2009-2012
Asperger Society Japan	2009-2012
Japan Marrow Donor Registry Promotion Conference	2008, 2010-2012
Rescue Stock Yard	2008, 2010-2012
Emergency Medical Network of Helicopter and Hospital (HEM-Net)	2010-2012



Support Unit for Childhood Cancer with Effective Strategy and Solution (SUCCESS)	2011-2012
Plan Japan	2011-2012
Peace Winds Japan	2009, 2012
TEAM RESCUE	2012
KnK Japan (Children Without Borders)	2012

### Support for employee volunteer activities (social activity leave program)

In August 2008, we introduced a social activity leave program to provide support for employees participating in social activities, by enabling them to take paid leave up to two days a year. In fiscal 2013, employees used the program 194 times for a wide range of activities, including assisting with reconstruction following the Great East Japan Earthquake, volunteer fire fighting activities, and coaching and supervising local baseball and soccer teams.

To help employees get involved in voluntary relief activities, we also allow employees to take up to eight days special leave each year, so that they can engage in social activities aimed at providing disaster relief.

### Participating in “Fureai” programs and concerts

We have been providing support for activities carried out by the “Fureai (Friendship) Trio”, which aims to bring classical music to people throughout Japan, ever since 2003.

The Fureai Trio's activities focus on the three areas of education, culture and welfare. This includes “Fureai Programs” aimed at elementary school children who rarely get the opportunity to experience live music, “Fureai Concerts” designed to get more people interested in classical music, and “Fureai Markets” held in conjunction with social welfare facilities. The trio has put on 350 performances in 130 different towns and cities around Japan to date, encouraging over 80,000 people to get involved in exchange through music. Fourteen of our employees volunteered to assist with performances for disabled audiences in Osaka and Tokyo in 2012. They provided general assistance and helped members of the audience to share in the wonders of classical music, through activities such as trying to play the violin.



The Fureai Trio performing at an elementary school (Osaka)



The Fureai Trio and volunteers after the performance in Tokyo

## Social contribution activities

▶ Goals and Results

▶ Nurturing Future Generations

▶ Disaster Relief

▶ Support for Employees' Social Contribution Activities

▼ Support for Intellectual Property Education

### Support for Intellectual Property Education

Mitsui Chemicals organizes seminars on intellectual property for Japanese students.

#### Support for intellectual property education for technical college students

At the request of Ariake National College of Technology in Omuta, we have been organizing intellectual property education for students since fiscal 2008. On December 26, 2012, we once again organized a six-hour intensive training seminar providing an overview of intellectual property rights and how they are used, as part of the college's own curriculum based on partnerships in the local area.

The seminar was attended by 12 technical college students, who listened with great interest and were eager to ask questions. Our activities definitely helped to stimulate their interest in intellectual property, which is set to become even more important as they go on to shoulder the future of industry.

We will continue to assist with community activities such as these in the future.

# Disaster Recovery Support

## ▼ Report on disaster recovery support following the Great East Japan Earthquake

### Report on disaster recovery support following the Great East Japan Earthquake

As part of our ongoing recovery support activities following the Great East Japan Earthquake, we joined forces with an NPO\* to organize a series of “Adventure Class in Wonder-Chemistry” laboratory classes in Minamisanriku (Miyagi prefecture), getting lots of children to join in experiments using Mitsui Chemicals products.

One of the employees involved commented, “I feel really motivated about the future now, having met children who have experienced such fear and sadness, and seen the positive attitude of people in Minamisanriku.”

We have also been selling charity lunches in the “Nagomi Salon” section of our staff canteen. We then matched the total amount raised and donated the proceeds to NPOs that are continuing to provide support in the area affected by the Great East Japan Earthquake.

\* 1 NPO: Peace Winds Japan (PWJ) <http://peace-winds.org/jp/eq/> 

In Minamisanriku itself, we have organized after-school programs (to provide safe learning environments for children and to help revitalize the community) in partnership with local NPOs such as Minamisanriku Reconstruction Network, and are also providing support for industrial recovery in the area.



Foamy experiments using urethane



Making a huge lump of slime!

### Fitting heat-shielding film to make air conditioning more effective

At the request of people living in temporary accommodation, we have once again provided heat-shielding film to help keep room temperatures cool during the summer months. We have also sent employees out to the area to fit films, along the same lines as last year.

After working onsite, one employee commented, “it may be a gradual process, but it feels like progress is being made with recovery. Even so, it's still going to take time, in terms of restoring rail links for example”. Another employee commented, “we need to keep on providing support in the future, wherever possible throughout the Mitsui Chemicals Group”.



Participating employees



Employees fitting heat-shielding films

### Recovery support seminar

As part of our recovery initiatives in support of the area affected by the Great East Japan Earthquake, we invited representatives from other companies that have also been working with the NPO Peace Winds Japan to our Head Office to take part in a recovery support seminar on November 29, 2012.

Employees attending the event were captivated by the unique stories of those who been out to the affected area. Comments included “you've got to go out there to East Japan to really feel what it's like”, “you start to see things from the same perspective, and then just do whatever you can”, and “we may not be able

to do much as individuals, but if companies and NPOs join forces, we can make a real difference”.

The seminar helped map out and underline the direction of initiatives within the Mitsui Chemicals Group for the future.



Participants interacting with one another



The seminar in progress

### Comments regarding our CSR Report 2012

Results of surveys regarding our CSR Report 2012

[▶ CSR Report 2012 Survey Results](#)

### Third-party Comments on CSR Report 2013

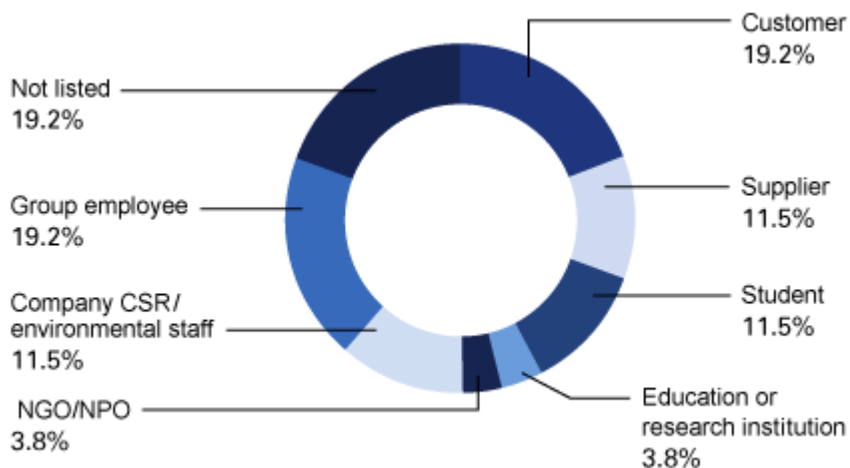
[▶ Third-party Comments on CSR Report 2013](#)

## Comments regarding our CSR Report 2012

The Mitsui Chemicals Group conducts surveys to obtain extensive feedback from those inside and outside the company, so that improvements can be made to activities and reports in the future. The results of surveys regarding the online version of our CSR Report are as follows. Thank you to those who took part.

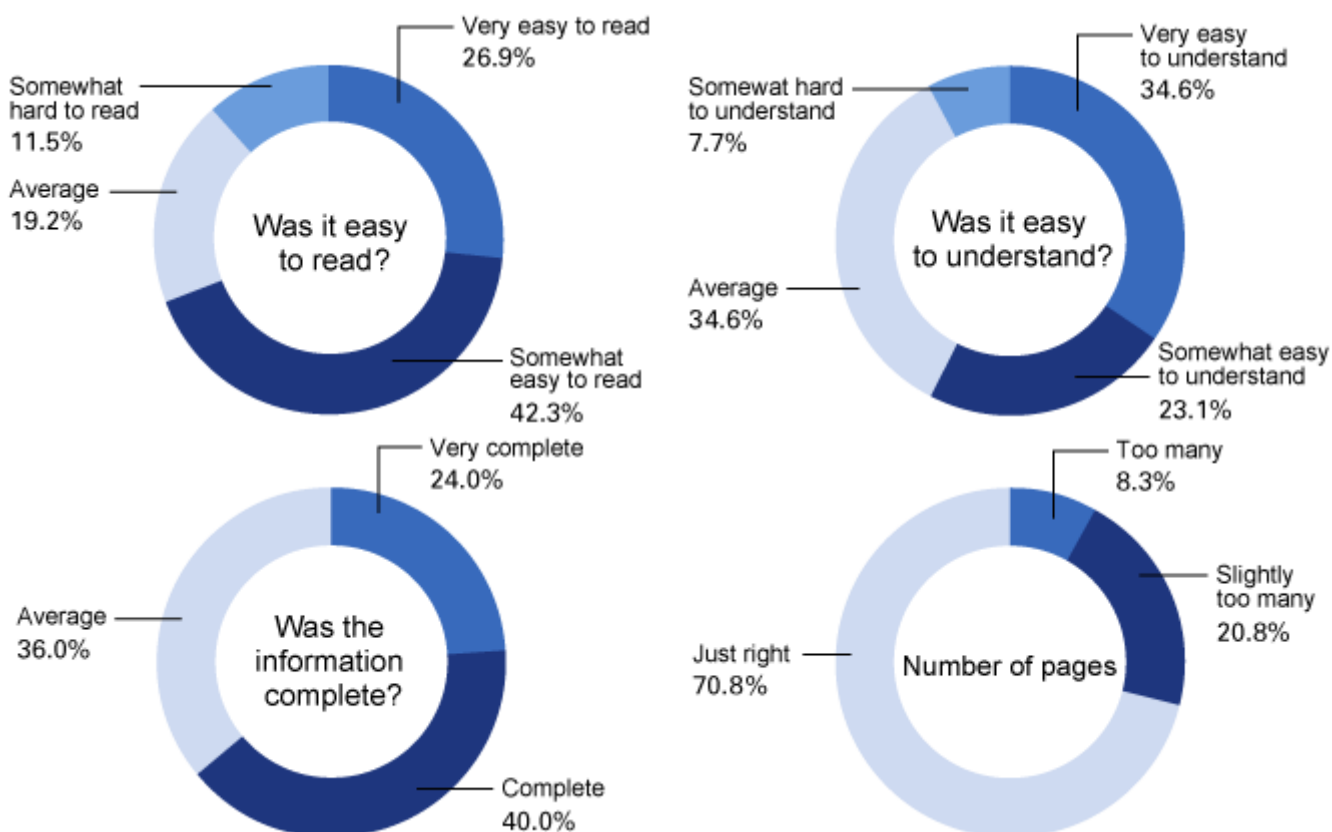
### CSR Report 2012 Survey Results

#### Q1: What is your relationship to Mitsui Chemicals?



\* Note: Percentages may not add up to 100% or the respective total due to rounding.

#### Q2: What did you think of the report?

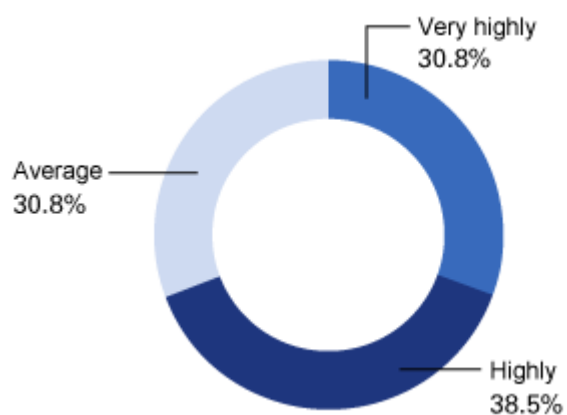


\* Note: Percentages may not add up to 100% or the respective total due to rounding.

#### Q3: Which sections of the report did you find interesting? (multiple responses)



**Q4: How would you rate the Mitsui Chemicals Group's CSR activities?**



\* Note: Percentages may not add up to 100% or the respective total due to rounding.



Mr. Eiichiro Adachi have provided us with comments regarding the Mitsui Chemicals Group's CSR activities.

## Eiichiro Adachi

Counselor

Head of ESG Research Center

The Japan Research Institute, Limited



Following on from the last two years, I would like to offer the following third-party comments about the Mitsui Chemicals Group's corporate social responsibility (CSR) activities and this report, in my capacity as someone who provides financial institutions with corporate information for the purposes of socially responsible investment.

On July 23, Mitsui Chemicals restarted operations at its Iwakuni-Ohtake Works cymene plant, and announced that operations were up and running at all plants on the site. The only exception is the works' resorcin plant, as the Group discontinued its resorcin operations at the end of December 2012. This report once again outlines the accident at the Iwakuni-Ohtake Works resorcin manufacturing facilities, including the causes of the accident and subsequent preventive measures. First and foremost, I would like to say that I hope the Group will continue with its initiatives aimed at preserving the lessons learnt from the accident.

Although I feel that the Mitsui Chemicals Group has established a clear style and concise structure for its CSR Report, I would like to make the following four recommendations for an even more convincing report.

First, I would recommend obtaining and publishing comments from a wider range of stakeholders, including employees. Although there are a few staff comments in the "Working with our Employees" section, I found myself wanting to hear more of the honest opinions shared by employees taking part in Two-Way Communication Discussions for instance, or the CSR Supporter scheme. I think that would help communicate the Mitsui Chemicals Group's distinctive and worthwhile initiatives more effectively.

Second, I would recommend a greater level of sensitivity towards the notion of readers asking "how?" and "why?" For example, the report states that the company failed to achieve its 0.49 target for the frequency of occupational accidents, but it is difficult to glean any background information or determine the reasons for that. I would also like to know more about progress towards the target of disclosing information on 70 substances by fiscal 2014, as part of chemical risk assessments under the group's Mid-Term Business Plan.

Third, I would recommend mentioning areas in which the Mitsui Chemicals Group is continuing to take on challenges as part of its core operations. The "Message from the President" says that the Group provides products, services and technologies aimed at tackling issues and risks facing society, as one of its priorities in business, but the section entitled "Tackling Social and Environmental Issues through the Mitsui Chemicals Group's Business and Main Products" focuses primarily on existing products that are already on the market. I would like to see the Group reporting on challenges at the research and development stages on an ongoing basis in the future. I would be particularly interested in the practical application of methanol synthesis technologies using CO<sub>2</sub> as a raw material, for instance, and chemical synthesis technologies using E. coli-derived biomass as a raw material.

Finally, I would recommend covering a wider range of topics relating to overseas operations and employees. Some 42% of the Mitsui Chemicals Group's sales come from overseas, and the Group has 3,200 overseas employees too. It would make sense to provide more information in areas such as initiatives at overseas subsidiaries and the group's philosophy on global human resources, to give a clearer picture of the Group as a whole.

These comments draw no conclusions regarding the accuracy of this report, including whether or not figures have been recorded and calculated in accordance with generally accepted environmental reporting standards, and whether or not any material facts have been omitted.

## Response

We would like to thank Mr. Eiichiro Adachi for his invaluable comments and suggestions regarding our CSR activities. We are focusing on practical and ongoing initiatives in response to the accident at the Iwakuni-Ohtake Works, to ensure that each and every one of our employees takes the lessons learnt from the accident on board, and to create a safety culture in which we preserve those lessons on a companywide basis.

Mr. Adachi's four recommendations serve as a reminder of just how important it is to view things from the perspective of

our stakeholders, and to pay closer attention to the targets we have committed ourselves to achieving.

We will work on producing even more detailed reports on the frequency of occupational accidents, including their causes, background information and follow-up measures, and intend to disclose more information on progress with chemical risk assessments too.

In terms of our commitment to tackling social issues through technologies and other challenges we are taking on at the research and development stages, we are still exploring the long-term implications at the moment. As well as continuing to refine technologies, in order to overcome the various obstacles in our way, we also need to establish a realistic business model that takes costs into account. Nonetheless, we will continue to explore the possibility of ongoing reports in the future.

We are committed to actively disclosing information, through initiatives aimed at helping to resolve global social issues and through even more comprehensive reports in the future. We look forward to your continued suggestions and support.

Haruko Kokue  
Senior Director  
General Manager, CSR Division

Here at the Mitsui Chemicals Group, we are committed to protecting the environment through initiatives such as reducing environmental impact and saving energy. We also place great importance on communication with local communities and carry out a range of CSR activities aimed at establishing ourselves as a “good and trustworthy company” that is trusted by all of its stakeholders.

The following table provides a summary of our activities. If you would like to know more about any category, please click on the relevant data.

Category		Data
Message from the President	UN Global Compact	<a href="#">Cross-reference table for the ten principals of the UN Global Compact</a>
Tackling Social and Environmental Issues through the Mitsui Chemicals Group's Business and Main Products		<a href="#">The Mitsui Chemicals Group's Business Categories and Main Products</a>
CSR Management	CSR in the Mitsui Chemicals Group	<a href="#">Key initiatives in line with core subjects under ISO 26000</a>
	Management System	<a href="#">Goals and Results</a>
		<a href="#">Risk Hotline Statistics</a>
Responsible Care	RC Promotion System	<a href="#">Goals and Results</a>
		<a href="#">International Certifications and Fiscal 2013 RC Audits at Subsidiaries and Affiliates</a>
	Occupational Health and Safety	<a href="#">Goals and Results</a>
		<a href="#">Occupational accidents and injuries in the Mitsui Chemicals Group</a>
		<a href="#">Frequency of Accidents Resulting in Absence from Work (All Industries/Chemical Industry/Mitsui Chemicals)</a>
		<a href="#">Frequency of Occupational Accidents (Mitsui Chemicals Employees + Contractors)</a>
	Process Safety and Disaster Prevention	<a href="#">Goals and Results</a>
		<a href="#">Breakdown of investments in health, safety and disaster prevention</a>
	Environmental Preservation	<a href="#">Goals and Results</a>
		<a href="#">Greenhouse Gas Emissions and Energy Intensity Index</a>
		<a href="#">Landfill Disposal of Industrial Waste</a>
		<a href="#">The Process of Waste Disposal (Mitsui Chemicals)</a>
		<a href="#">The process of reducing industrial waste disposal</a>
		<a href="#">Emissions of substances subject to the PRTR Act</a>
		<a href="#">PRTR data for individual sites (Kashima Works / Ichihara Works / Mobara Branch Factory / Nagoya Works / Osaka Works / Iwakuni-Ohtake Works / Tokuyama Branch Factory / Omuta Works)</a>
		<a href="#">Preserving air quality</a>
		<a href="#">Preserving water quality</a>

		Environmental accounts
		Breakdown of environmental costs and benefits
		Input⇒Output Data (Mitsui Chemicals)
		Input⇒Output Data (domestic offsite affiliates)
		Input⇒Output Data (overseas affiliates and subsidiaries)
		Input⇒Output Data for Individual Sites
		Eco-efficiency and ELP indices
		Calculating eco-efficiency index
		Response to environmental complaints
	Chemical Management	Goals and Results
Communication with Society	Quality	Goals and Results
	Logistics	Goals and Results
	Working with our Suppliers	Goals and Results
		CSR Procurement
		Score distribution
	Working with our Shareholders	Goals and Results
	Working with our Employees	Goals and Results
		List of Support Programs
		Promoting Diversity (Number of Female Managers/Rate of Disabled Employment)
		Positive Diagnosis Results
		Breakdown of Days Off due to Illness
		A wide range of health management programs (health education/events)
	Working with Industry and Academia	Goals and Results
	Working with Local Communities	Goals and Results
		Community Exchange Activities at Domestic and Overseas Affiliates in Fiscal 2012
		Main outside award in FY2013
	Social Contribution Activities	Goals and Results
		Adventure Class in Wonder-Chemistry Classes in Fiscal 2013
		Adventure Class in Wonder-Chemistry Experiments
		Organizations Supported by the One-Coin Club in Fiscal 2013
	Disaster Recovery Support	Report on disaster recovery support following the Great East Japan Earthquake
	Comments Regarding our CSR Report 2013	CSR Survey 2013 Results
Guideline Cross-Reference Tables		GRI Guideline Reference Table
		ISO 26000 Reference Table

GRI Guidelines Cross-reference List

▶ [GRI Guidelines Cross-reference List](#)

Mitsui Chemicals' Commitment to ISO 26000

▶ [Mitsui Chemicals' Commitment to ISO 26000](#)

An official partner of the United Nations Environment Programme (UNEP) based in the Netherlands, the Global Reporting Initiative (GRI) is an NGO whose purpose is to develop and promote guidelines relating to corporate sustainability reports. The GRI Guidelines are a set of international guidelines for businesses, to ensure that they take environmental and social factors into consideration as part of the process of economic development.

The following table shows booklets/web sections corresponding to items of the GRI Guidelines.

\* Whereas the original table is based on Version 3.1 (G3.1), the translated text is based on the ESG Communication Forum version.

Item	Indicators	Applicable/Not applicable	WEB
			Corresponding Sections
1. Strategy and Analysis			
1.1	Statement from the most senior decisionmaker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	○	■Message from the President
1.2	Description of key impacts, risks, and opportunities.	○	■Message from the President ■The aims of CSR ■RC initiative ■Management Plan (Grand Design)
2.Organizational Profile			
2.1	Name of the organization.	○	■Corporate Overview
2.2	Primary brands, products, and/or services.	○	■Business & Products ■The Mitsui Chemicals' Group's Business and Main Products
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	○	■Organization
2.4	Location of organization's headquarters.	○	■Corporate Overview
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	○	■Overseas Subsidiaries & Affiliates
2.6	Nature of ownership and legal form.	○	■Corporate Overview
2.7	Markets served (including geographical breakdown, sectors served, types of customers/beneficiaries).	○	■Overseas Subsidiaries & Affiliates ■Fact Book
2.8	Scale of the reporting organization, including:  - Number of employees; - Number of operations; - Net sales (for private sector organizations) or net revenues (for public sector organizations); - Total capitalization broken down in terms of debt and equity (for private ector organizations);	○	■Corporate Overview ■Fact Book ■INPUT⇒OUTPUT

	and - Quantity of products or services provided		
2.9	Significant changes during the reporting period regarding size, structure, or ownership including: - The location of, or changes in operations, including facility openings, closings, and expansions; and - Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations).	×	—
2.10	Awards received in the reporting period.	○	■ <a href="#">Commendations from Society</a>
<b>3. Report Parameters</b>			
Report Profile			
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	○	■ <a href="#">About CSR Report 2013</a>
3.2	Date of most recent previous report (if any).	×	—
3.3	Reporting cycle (annual, biennial, etc.)	○	■ <a href="#">Download CSR Reports (PDF)</a>
3.4	Contact point for questions regarding the report or its contents.	○	■ <a href="#">Contact Us</a>
<b>Report Scope and Boundary</b>			
3.5	Process for defining report content, including: - Determining materiality; - Prioritizing topics within the report; and - Identifying stakeholders the organization expects to use the report.	○	■ <a href="#">About CSR Report 2013</a>
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	○	■ <a href="#">About CSR Report 2013</a>
3.7	State any specific limitations on the scope or boundary of the report.	○	■ <a href="#">About CSR Report 2013</a> ■ <a href="#">Industrial Waste Reduction</a>
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	×	—
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	○	■ <a href="#">Creating a Safe and Secure Workplace</a> ■ <a href="#">Industrial Waste Reduction</a> ■ <a href="#">Substances Subject to the PRTR Act</a> ■ <a href="#">Environmental Accounting</a> ■ <a href="#">Environmental Impact Assessment</a>
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	○	■ <a href="#">Preventing Global Warming</a>
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	×	—
GRI Content Index			



3.12	Table identifying the location of the Standard Disclosures in the report.	○	■GRI Guidelines Cross-reference List
Assurance			
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).	○	—
<b>4. Governance, Commitments, and Engagement</b>			
Governance			
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	○	■Framework for the creation of a "good and trustworthy company" ■Corporate Governance ■RC Management System
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	○	■Corporate Governance ■Board of Directors
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members.	○	■Corporate Governance
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	○	■Corporate Governance ■Disclosure of Information to Shareholders
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	○	■Security reports
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	○	■Corporate Governance
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	×	—
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	○	■Message from the President ■Management Plan (Grand Design) ■Aims of CSR ■The Mitsui Chemicals Group's Core Values ■Efforts to improve awareness and conduct as a "good and trustworthy company" ■Responsible Care Policy
	Procedures of the highest governance body for overseeing the organization's identification and management of economic,		

4.9	environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	○	<ul style="list-style-type: none"> <li>■ The UN Global Compact</li> <li>■ Responsible Care Policy</li> </ul>
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	×	—
Commitments to External Initiatives			
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	○	<ul style="list-style-type: none"> <li>■ Mitsui Chemicals' Commitment to ISO 26000</li> <li>■ RC Management System</li> <li>■ Ensuring the Safety of Chemicals and Products</li> <li>■ Special Feature 2: Chemical Management</li> </ul>
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	○	<ul style="list-style-type: none"> <li>■ The UN Global Compact</li> <li>■ Mitsui Chemicals' Commitment to ISO 26000</li> <li>■ Biodiversity</li> </ul>
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization: <ul style="list-style-type: none"> <li>• Has positions in governance bodies;</li> <li>• Participates in projects or committees;</li> <li>• Provides substantive funding beyond routine membership dues; or</li> <li>• Views membership as strategic.</li> </ul>	○	<ul style="list-style-type: none"> <li>■ Ensuring the Safety of Chemicals and Products</li> <li>■ Promotion of Joint Research and Projects</li> </ul>
Stakeholder Engagement			
4.14	List of stakeholder groups engaged by the organization.	○	<ul style="list-style-type: none"> <li>■ Disclosure of Information to Shareholders</li> <li>■ Dialog with Local Communities</li> <li>■ Nurturing Future Generations</li> <li>■ Results of the Survey</li> </ul>
4.15	Basis for identification and selection of stakeholders with whom to engage.	×	—
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	○	<ul style="list-style-type: none"> <li>■ Quality Improvement Initiatives</li> <li>■ CSR Procurement</li> <li>■ Disclosure of Information to Shareholders</li> <li>■ Dialog with Local Communities</li> <li>■ Nurturing Future Generations</li> <li>■ Results of the Survey</li> </ul>
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those	○	—

	key topics and concerns, including through its reporting.		
<b>5.Management Approach and Performance Indicators</b>			
Economic			
	Disclosure on Management Approach	○	<ul style="list-style-type: none"> <li>■Message from the President</li> <li>■The aims of CSR</li> <li>■Management Plan (Grand Design)</li> </ul>
Economic Performance Indicators			
Aspect:Economic Performance			
CORE EC1.	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	×	—
CORE EC2.	Financial implications and other risks and opportunities for the organization's activities due to climate change.	○	<ul style="list-style-type: none"> <li>■Message from the President</li> <li>■Special Feature 1: Tahara Solar-Wind™ Joint Project</li> </ul>
CORE EC3.	Coverage of the organization's defined benefit plan obligations.	×	—
CORE EC4.	Significant financial assistance received from government.	×	—
Aspect: Market Presence			
ADD EC5.	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation.	×	—
CORE EC6.	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation.	×	—
CORE EC7.	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.	×	—
Aspect:Indirect Economic Impacts			
CORE EC8.	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, inkind, or pro bono engagement.	○	<ul style="list-style-type: none"> <li>■Exchange with Local Communities</li> <li>■Nurturing Future Generations</li> <li>■Disaster Relief</li> <li>■Support for Intellectual Property Education</li> <li>■Disaster Recovery Support</li> </ul>
ADD EC9.	Understanding and describing significant indirect economic impacts, including the extent of impacts.	○	<ul style="list-style-type: none"> <li>■Safety Initiatives</li> </ul>
Environmental			
Disclosure on Management Approach		○	<ul style="list-style-type: none"> <li>■Message from the President</li> <li>■Environmental Protection&gt;Goals and Results</li> </ul>
Environmental Performance Indicators			
Aspect: Materials			
CORE EN1.	Materials used by weight or volume.	○	■INPUT⇒OUTPUT

CORE EN2.	Percentage of materials used that are recycled input materials.	×	—
Aspect:Energy			
CORE EN3.	"Direct energy consumption by primary energy source."	○	■INPUT⇒OUTPUT
CORE EN4.	Indirect energy consumption by primary source.	×	—
ADD EN5.	Energy saved due to conservation and efficiency improvements.	○	■Preventing Global Warming
ADD EN6.	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	○	■Special Feature 1: Tahara Solar-Wind™ Joint Project ■Preventing Global Warming
ADD EN7.	Initiatives to reduce indirect energy consumption and reductions achieved.	×	—
Aspect:Water			
CORE EN8.	Total water withdrawal by source.	○	■Preserving water quality ■INPUT⇒OUTPUT
ADD EN9.	Water sources significantly affected by withdrawal of water.	×	—
ADD EN10.	Percentage and total volume of water recycled and reused.	×	—
Aspect:Biodiversity			
CORE EN11.	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	×	—
CORE EN12.	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.	○	■Biodiversity
ADD EN13.	Habitats protected or restored.	○	■Biodiversity
ADD EN14.	Strategies, current actions, and future plans for managing impacts on biodiversity.	×	—
ADD EN15.	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.	×	—
Aspect:Emissions, Effluents, and Waste			
CORE EN16.	Total direct and indirect greenhouse gas emissions by weight.	○	■Preventing Global Warming ■INPUT⇒OUTPUT ■Environmental Impact Assessment
CORE EN17.	Other relevant indirect greenhouse gas emissions by weight.	×	—
ADD EN18.	Initiatives to reduce greenhouse gas emissions and reductions achieved.	○	■Preventing Global Warming
CORE EN19.	Emissions of ozone-depleting substances by weight.	○	■Substances Subject to the PRTR Act ■INPUT⇒OUTPUT

CORE EN20.	NOx, SOx, and other significant air emissions by type and weight.	○	<ul style="list-style-type: none"> <li>■ Preserving water quality</li> <li>■ INPUT⇒OUTPUT</li> <li>■ Environmental Impact Assessment</li> </ul>
CORE EN21.	Total water discharge by quality and destination.	○	<ul style="list-style-type: none"> <li>■ Preserving water quality</li> <li>■ INPUT⇒OUTPUT</li> </ul>
CORE EN22.	Total weight of waste by type and disposal method.	○	<ul style="list-style-type: none"> <li>■ Industrial Waste Reduction</li> <li>■ INPUT⇒OUTPUT</li> <li>■ Environmental Impact Assessment</li> </ul>
CORE EN23.	Total number and volume of significant spills.	○	<ul style="list-style-type: none"> <li>■ Handling Environmental Complaints</li> </ul>
ADD EN24.	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	×	—
ADD EN25.	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.	×	—
Aspect: Products and Services			
CORE EN26.	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.	○	<ul style="list-style-type: none"> <li>■ Industrial Waste Reduction</li> </ul>
CORE EN27.	Percentage of products sold and their packaging materials that are reclaimed by category.	×	—
Aspect: Compliance			
CORE EN28.	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	○	<ul style="list-style-type: none"> <li>■ Environmental Safety, Occupational Health, and Quality Audits</li> </ul>
Aspect: Transport			
ADD EN29.	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce.	○	<ul style="list-style-type: none"> <li>■ Preventing Global Warming</li> </ul>
Aspect: Overall			
ADD EN30.	Total environmental protection expenditures and investments by type.	○	<ul style="list-style-type: none"> <li>■ Environmental Accounting</li> </ul>
Social Performance Indicators			
Labor Practices and Decent Work			
Disclosure on Management Approach		○	<ul style="list-style-type: none"> <li>■ Message from the President</li> <li>■ Occupational Health and Safety &gt; Goals and Results</li> <li>■ Safety and Disaster Prevention &gt; Goals and Results</li> <li>■ Together with Employees &gt; Goals and Results</li> </ul>
Labor Practices and Decent Work Performance Indicators			
Aspect: Employment			

CORE LA1.	Total workforce by employment type, employment contract, and region, broken down by gender.	○	<ul style="list-style-type: none"> <li>■Corporate Overview</li> <li>■Overseas Subsidiaries &amp; Affiliates</li> <li>■Other Data</li> </ul>
CORE LA2.	Total number and rate of new employee hires and employee turnover by age group, gender, and region.	×	—
ADD LA3.	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation.	○	<ul style="list-style-type: none"> <li>■Creating an Employee-Friendly Working Environment</li> </ul>
CORE LA15.	Return to work and retention rates after parental leave, by gender.	×	—
Aspect:Labor/Management Relations			
CORE LA4.	Percentage of employees covered by collective bargaining agreements.	×	—
CORE LA5.	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.	×	—
Aspect:Occupational Health and Safety			
CORE LA6.	Percentage of total workforce represented in formal joint management–worker health and safety committees that help monitor and advise on occupational health and safety programs.	×	—
CORE LA7.	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender.	○	<ul style="list-style-type: none"> <li>■Creating a Safe and Secure Workplace</li> </ul>
CORE LA8.	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	○	<ul style="list-style-type: none"> <li>■Employee Health</li> </ul>
ADD LA9.	Health and safety topics covered in formal agreements with trade unions.	×	—
Aspect: Training and Education			
CORE LA10.	Average hours of training per year per employee by gender, and by employee category.	○	<ul style="list-style-type: none"> <li>■Compliance Training</li> <li>■Safety and Disaster Prevention&gt;Goals and Results</li> <li>■Quality Improvement Initiatives</li> <li>■Personnel Advancement and Utilization</li> </ul>
ADD LA11.	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	○	<ul style="list-style-type: none"> <li>■Personnel Advancement and Utilization</li> </ul>
ADD LA12.	Percentage of employees receiving regular performance and career development reviews, by gender.	×	—
Aspect:Diversity and Equal Opportunity			
CORE LA13.	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity.	○	<ul style="list-style-type: none"> <li>■Creating an Employee-Friendly Working Environment</li> </ul>

Aspect : Equal Remuneration for Women and Men			
CORE LA14.	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.	×	—
Human Rights			
Disclosure on Management Approach		○	<ul style="list-style-type: none"> <li>■ Basic philosophy on human rights</li> <li>■ Purchasing Policy</li> <li>■ CSR Procurement</li> </ul>
Human Rights Performance Indicators			
Aspect: Investment and Procurement Practices			
CORE HR1.	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening.	×	—
CORE HR2.	Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken.	○	<ul style="list-style-type: none"> <li>■ Purchasing Policy</li> <li>■ CSR Procurement</li> </ul>
ADD HR3.	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.	×	—
Aspect: Non-discrimination			
CORE HR4.	Total number of incidents of discrimination and corrective actions taken.	×	—
Aspect: Freedom of Association and Collective Bargaining			
CORE HR5.	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.	×	—
Aspect: Child Labor			
CORE HR6.	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor.	○	<ul style="list-style-type: none"> <li>■ CSR Procurement</li> </ul>
Aspect: Forced and Compulsory Labor			
CORE HR7.	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor.	○	<ul style="list-style-type: none"> <li>■ CSR Procurement</li> </ul>
Aspect: Security Practices			
ADD HR8.	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.	×	—
Aspect: Indigenous Rights			



ADD HR9.	Total number of incidents of violations involving rights of indigenous people and actions taken.	×	—
Aspect: Assessment			
CORE HR10.	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments.	×	—
Aspect: Remediation			
CORE HR11.	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms.	×	—
Society			
Disclosure on Management Approach		○	<ul style="list-style-type: none"> <li>■ Together with Employees &gt; Goals and Results</li> <li>■ Together with Industry and Academia &gt; Goals and Results</li> <li>■ Together with Local Communities &gt; Goals and Results</li> <li>■ Social Contribution Activities &gt; Goals and Results</li> <li>■ Working with our suppliers &gt; Purchasing Policy</li> </ul>
Society Performance Indicators			
Aspect: Local Communities			
CORE SO1.	Percentage of operations with implemented local community engagement, impact assessments, and development programs.	×	—
CORE SO9.	Operations with significant potential or actual negative impacts on local communities.	○	<ul style="list-style-type: none"> <li>■ Safety Initiatives</li> <li>■ Handling Environmental Complaints</li> </ul>
CORE SO10.	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.	○	<ul style="list-style-type: none"> <li>■ Safety Initiatives</li> <li>■ Handling Environmental Complaints</li> </ul>
Aspect: Corruption			
CORE SO2.	Percentage and total number of business units analyzed for risks related to corruption.	○	<ul style="list-style-type: none"> <li>■ Environmental Safety, Occupational Health, and Quality Audits</li> </ul>
CORE SO3.	Percentage of employees trained in organization's anti-corruption policies and procedures.	○	<ul style="list-style-type: none"> <li>■ Compliance Training</li> </ul>
CORE SO4.	Actions taken in response to incidents of corruption.	×	—
Aspect: Public Policy			
CORE SO5.	Public policy positions and participation in public policy development and lobbying.	○	<ul style="list-style-type: none"> <li>■ Ensuring the Safety of Chemicals and Products</li> <li>■ Creating an Employee-Friendly Working Environment</li> <li>■ Promotion of Joint Research and Projects</li> <li>■ Exchange with Local Communities</li> </ul>
ADD SO6.	Total value of financial and in-kind contributions to political parties, politicians,	×	—

	and related institutions by country.		
Aspect: Anti-Competitive Behavior			
ADD SO7.	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.	×	—
Aspect: Compliance			
CORE SO8.	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	×	—
Product Responsibility			
Disclosure on Management Approach		○	<ul style="list-style-type: none"> <li>■ Chemical Management &gt; Goals and Results</li> <li>■ Quality &gt; Goals and Results</li> </ul>
Product Responsibility Performance Indicators			
Aspect: Customer Health and Safety			
CORE PR1.	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	○	<ul style="list-style-type: none"> <li>■ RC Promotion System</li> <li>■ Quality Improvement Initiatives</li> <li>■ Ensuring the Safety of Chemicals and Products</li> </ul>
ADD PR2.	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	×	—
Aspect: Product and Service Labeling			
CORE PR3.	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.	○	<ul style="list-style-type: none"> <li>■ The Mitsui Chemicals' Group's Business and Main Products</li> </ul>
ADD PR4.	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.	×	—
ADD PR5.	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.	○	<ul style="list-style-type: none"> <li>■ Quality Improvement Initiatives</li> <li>■ Marketing "Meister" system</li> </ul>
Aspect: Marketing Communications			
CORE PR6.	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	×	—
ADD PR7.	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes.	×	—
Aspect: Customer Privacy			
ADD PR8.	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	×	—
Aspect: Compliance			
	Monetary value of significant fines for		

CORE PR9.	noncompliance with laws and regulations concerning the provision and use of products and services.	x	—
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Released by the International Organization for Standardization (ISO) in November 2010, ISO 26000 is an international standard that sets out social responsibility guidelines for all organizations.

The standard outlines seven principles for social responsibility (accountability, transparency, ethical behavior, respect for stakeholder interests, respect for the rule of law, respect for international norms of behavior and respect for human rights) and seven core subjects relating to social responsibility (organizational governance, human rights, labor practices, the environment, fair operating practices, consumer issues, and community involvement and development), and provides guidance without any obligation to obtain third-party certification.

The following table cross-references our initiatives against the seven core subjects set out under ISO 26000.

Core subject	Issues	Refer to
Organizational governance	Organizational governance	■ <a href="#">Message from the President</a>
		■ <a href="#">CSR in the Mitsui Chemicals Group</a>
		■ <a href="#">Management Framework</a>
		■ <a href="#">RC Promotion System</a>
		■ <a href="#">Basic Philosophy on Human Rights</a>
		■ <a href="#">Disclosure of Information to Shareholders</a>
		■ <a href="#">Dialog with Local Communities</a>
		■ <a href="#">Feedback from Inside and Outside the Company</a>
Human rights	Issue 1:Due diligence Issue 2:Human rights risk situations Issue 3:Avoidance of complicity Issue 4:Resolving grievances Issue 5:Discrimination and vulnerable groups Issue 6:Civil and political rights Issue 7:Economic, social and cultural rights Issue 8:Fundamental principles and rights at work	■ <a href="#">RC Promotion System</a>
		■ <a href="#">Basic Philosophy on Human Rights</a>
		■ <a href="#">Working with our Suppliers&gt;Goals and Results</a>
		■ <a href="#">Policy on Suppliers</a>
		■ <a href="#">CSR Procurement</a>
		■ <a href="#">Respect for Diversity and Individuality</a>
Labour practices	Issue 1:Employment and employment relationships Issue 2:Conditions of work and social protection Issue 3:Social dialogue Issue 4:Health and safety at work Issue 5:Human development and training in the workplace	■ <a href="#">Occupational Health and Safety&gt;Goals and Results</a>
		■ <a href="#">Creating Safe and Secure Workplaces</a>
		■ <a href="#">Employee Health</a>
		■ <a href="#">Process safety and disaster prevention training</a>
		■ <a href="#">Process Safety and Disaster Prevention Drills</a>
		■ <a href="#">Working with our Employees&gt;Goals and Results</a>
		■ <a href="#">Promoting and Utilizing Human Resources</a>
		■ <a href="#">Creating an Employee-Friendly Working Environment</a>
		■ <a href="#">Employee Health</a>
	Issue 1:Prevention of pollution	■ <a href="#">Special Feature 1: Tahara Solar-Wind™ Joint Project</a>
		■ <a href="#">Environmental Preservation&gt;Goals and Results</a>
		■ <a href="#">Preventing Global Warming</a>
		■ <a href="#">Reducing Industrial Waste</a>

The environment	Issue 2:Sustainable resource use Issue 3:Climate change mitigation and adaptation Issue 4:Protection of the environment, biodiversity and restoration of natural habitats	■ Substances Subject to the PRTR Act
		■ Preserving air quality
		■ Biodiversity
		■ Environmental Accounting
		■ INPUT⇒OUTPUT
		■ Environmental Impact Assessment
		■ Handling Environmental Complaints
		■ RC initiatives
Fair operating practices	Issue 1:Anti-corruption Issue 2:Responsible political involvement Issue 3:Fair competition Issue 4:Promoting social responsibility in the value chain Issue 5:Respect for property rights	■ Compliance Training
		■ RC initiatives
		■ Basic Philosophy on Human Rights
		■ Working with our Suppliers>Goals and Results
		■ Purchasing Policy
		■ CSR Procurement
Consumer issues	Issue 1:Fair marketing, factual and unbiased information and fair contractual practices Issue 2:Protecting consumers' health and safety Issue 3:Sustainable consumption Issue 4:Consumer service, support, and complaint and dispute resolution Issue 5:Consumer data protection and privacy Issue 6:Access to essential services Issue 7:Education and awareness	■ Safety Initiatives
		■ Handling Environmental Complaints
		■ Chemical Management>Goals and Results
		■ Ensuring the Safety of Chemicals and Products
		■ Risk Assessments for Mitsui Chemicals Products
		■ Quality>Goals and Results
		■ Quality Improvement Initiatives
		■ RC Promotion System
Community involvement and development	Issue 1:Community involvement Issue 2:Education and culture Issue 3:Employment creation and skills development Issue 4:Technology development and access Issue 5:Wealth and income creation Issue 6:Health Issue 7:Social investment	■ Marketing Master Scheme
		■ Special Feature 1: Tahara Solar-Wind™ Joint Project
		■ Safety Initiatives
		■ Handling Environmental Complaints
		■ Promoting and Utilizing Human Resources
		■ Creating an Employee-Friendly Working Environment
		■ Promoting Joint Research and Projects
		■ Dialog with Local Communities
		■ Exchange with Local Communities
		■ Social Contribution Activities>Goals and Results
		■ Nurturing Future Generations
		■ Disaster Relief
		■ Support for Employees' Social Contribution Activities
		■ Support for Intellectual Property Education
		■ Disaster Recovery Support

## Download CSR Reports

All CSR Communication, CSR Report and Responsible Care Report publications issued to date by the Mitsui Chemicals Group, whether online or in print, are available as PDF files or in digital book format.

We hope that publishing printed and online reports will encourage communication with all of our stakeholders and enable us to keep on expanding and improving our activities in the future. We hope you enjoy reading our reports.

### Digital Books

## 2013

### 【Online version】CSR Report 2013 PDF version



The contents of our CSR Report 2013, as featured on this website, are available in PDF format and can be downloaded in full or in individual sections.

▶ Full report (PDF : 4MB) 

▶ Individual sections

### 【Printed version】CSR Communication 2013



The printed version of CSR Communication 2013 is also available in PDF format and can be downloaded in full.

▶ Full report (PDF : 3.9MB) 

▶ Digital book 

## 2012



【Online version】CSR Report 2012

Full report (PDF : 2.83MB)



## 2011



【Online version】CSR Report 2011

FY2011 online version (PDF : 2.56MB)



【Printed version】CSR Communication

Full report (PDF : 7.59MB)



Digital book 

## CSR Report



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CSR Report 2009  
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CSR Report 2007  
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CSR Report 2005  
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## Responsible Care Report

Please click below to view our RC reports regarding environment, safety, occupational health, and quality.





Responsible Care Report  
2004  
Full report (PDF :  
1.19MB)   
Digital book 





Responsible Care Report  
2003  
Full report (PDF :  
1.34MB)   
Digital book 





Responsible Care Report  
2002  
Full report (PDF :  
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2001  
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2000  
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[Top Page \(PDF : 153KB\)](#) 

[Message from the President \(PDF : 91KB\)](#) 

[UN Global Compact \(PDF : 33KB\)](#) 

[Safety Initiatives \(PDF : 560KB\)](#) 

[Special Feature \(PDF : 262KB\)](#) 

[Tackling Social and Environmental Issues through the Mitsui Chemicals Group's Business and Main Products \(PDF : 172KB\)](#) 

[CSR Management \(PDF : 23KB\)](#) 

[CSR in the Mitsui Chemicals Group \(PDF : 398KB\)](#) 

[Management Framework \(PDF : 147KB\)](#) 

[Responsible Care \(PDF : 37KB\)](#) 

[Mitsui Chemicals' Responsible Care Policy \(PDF : 25KB\)](#) 

[RC Promotion System \(PDF : 226KB\)](#) 

[Occupational Health and Safety \(PDF : 110KB\)](#) 

[Process Safety and Disaster Prevention \(PDF : 204KB\)](#) 

[Environmental Protection \(PDF : 827KB\)](#) 

[Chemical Management \(PDF : 171KB\)](#) 

[Quality \(PDF : 128KB\)](#) 

[Logistics \(PDF : 114KB\)](#) 

[Communication with Society \(PDF : 28KB\)](#) 

[Respect for Human Rights \(PDF : 24KB\)](#) 

[Working with our Customers \(PDF : 22KB\)](#) 

[Working with our suppliers \(PDF : 101KB\)](#) 

[Working with our Shareholders \(PDF : 80KB\)](#) 

[Working with our Employees \(PDF : 633KB\)](#) 

[Working with Industry and Academia \(PDF : 77KB\)](#) 

[Working with Local Communities \(PDF : 581KB\)](#) 

[Social contribution activities \(PDF : 685KB\)](#) 

[Disaster Recovery Support \(PDF : 92KB\)](#) 

[Feedback from Inside and Outside the Company \(PDF : 79KB\)](#) 

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[Guideline Cross-Reference Tables \(PDF : 20KB\)](#) 

[GRI Guidelines Cross-reference List \(PDF : 192KB\)](#) 

[Mitsui Chemicals' Commitment to ISO 26000 \(PDF : 76KB\)](#) 

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[About CSR Report 2013 \(PDF : 24KB\)](#) 

[CSR Report 2013 Survey \(PDF : 21KB\)](#) 

[CSR Site Map \(PDF : 45KB\)](#) 

**We produce comprehensive and detailed reports on the Mitsui Chemicals Group's CSR initiatives, taking advantage of the unique features of online media.**

## Editorial Policy

Since fiscal 2011, we have provided comprehensive and detailed content primarily via the online version of the Mitsui Chemicals Group's CSR Report. We also publish a printed version, which is intended to provide information that we particularly want to share with our stakeholders, rather than merely being an abridged version of the online report. We have once again edited our reports in line with this policy in fiscal 2013.

We produce CSR reports to maintain dialog with our stakeholders. Our reports highlight the Mitsui Chemicals Group's main CSR initiatives from three key perspectives (economy, environment and society), with a focus on environmental and social initiatives in particular. Please see our Annual Report for a more in-depth economic viewpoint.

[Investor Relations](#)   [Annual Report](#)

### Online version

We post the full version of our CSR Report, which provides comprehensive and detailed content, on the Mitsui Chemicals Group website. As well as improving the contents of our reports in line with ISO 26000, we continue to edit our reports with the aim of making them more varied, readable, and accessible. We hope you will take the time to read about our wide-ranging CSR activities online.

[CSR Site Map](#)

### Printed version

The printed version of our CSR Report contains information that we particularly want to share with the Mitsui Chemical Group's stakeholders, including special features on environmental and related initiatives. Please regard it as a supplement to the online version.

## Scope of the Report

### Coverage

Our 2013 report covers activities during fiscal 2013 (April 1, 2012 to March 31, 2013). It may also include data relating to more recent activities however, from April 2013 onwards.

### Data

Unless specifically indicated to include affiliates or subsidiaries, all data in this report refers to Mitsui Chemicals.

## Referenced Guidelines

- ISO26000
- Global Reporting Initiative(GRI) : 3.1 version\*
- Environmental Reporting Guideline 2012 (Ministry of the Environment)
- Environmental Accounting Guideline 2005 (Ministry of the Environment)

\* Translated text based on ESG Communication Forum version

[GRI Guidelines Index](#)   [ISO26000 Cross-Reference Table](#)

We welcome your comments and feedback on our CSR Report 2013 in e-mail format.

We will not use your personal information obtained through the survey for any purpose unless it is strictly necessary, such as in a case where our subsidiaries or affiliates request for it to reply to your inquiries.

Please refer to our [Privacy Policy](#) for more details.

[▶ Questionnaire](#) 

The following is a full list of the contents of the CSR section of the Mitsui Chemicals Group website.  
Click on the links (Booklet P00) to view the relevant pages of CSR Communication 2013 in PDF format.

## ▶ Message from the President

▶ Message from the President    Booklet P4-5 (PDF: 112KB) 

▶ UN Global Compact

## ▶ Safety Initiatives

▶ Safety Initiatives    Booklet P6-9 (PDF: 308KB) 

- ▶ Outline of the Accident
- ▶ Determining the Cause of the Accident and Preventive Measures
- ▶ Restoration and Safety Initiatives
- ▶ Fundamental Safety Committee
- ▶ Safety Day

## ▶ Special Feature

▶ Special Feature

- ▶ Special Feature 1: Tahara Solar-Wind™ Joint Project    Booklet P12-13 (PDF: 217KB) 
- ▶ Special Feature 2: Chemical Management    Booklet P14 (PDF: 91KB) 

## ▶ Tackling Social and Environmental Issues through the Mitsui Chemicals Group's Business and Main Products

▶ The Mitsui Chemicals' Group's Business Categories and Main Products    Booklet P16-17 (PDF: 418KB) 

## ▶ CSR management

▶ CSR in the Mitsui Chemicals Group    Booklet P10-11 (PDF: 207KB) 

- ▶ The aims of CSR
- ▶ Overview of the Mitsui Chemicals Group's CSR initiatives
- ▶ Framework for the creation of a “good and trustworthy company”
- ▶ Efforts to improve awareness and conduct as a “good and trustworthy company”
- ▶ The Mitsui Chemicals Group's Core Values
- ▶ Identifying Key CSR Challenges
- ▶ Mitsui Chemicals' commitment to ISO 26000
- ▶ Key initiatives in line with core subjects under ISO 26000

▶ Management Framework

- ▶ Goals and Results
- ▶ Corporate Governance
- ▶ Corporate Governance Measures
- ▶ Internal Control
- ▶ Risk Management Framework
- ▶ Compliance Training

## ▶ Responsible Care

▶ Mitsui Chemicals' Responsible Care Policy

- ▶ Responsible Care Policy

▶ RC Promotion System

- ▶ Goals and Results
- ▶ RC initiatives
- ▶ RC Promotion System

- ▶ Environmental Safety, Occupational Health, and Quality Audits

- ▶ Occupational Health and Safety

- ▶ Goals and Results
- ▶ Creating Safe and Secure Workplaces
- ▶ Employee Health

- ▶ Process Safety and Disaster Prevention

- ▶ Goals and Results
- ▶ Process safety and disaster prevention training
- ▶ Safety Assessments
- ▶ Process Safety and Disaster Prevention Drills
- ▶ Investments in health, safety and disaster prevention

- ▶ Environmental Protection

- ▶ Goals and Results
- ▶ Preventing Global Warming
- ▶ Reducing Industrial Waste
- ▶ Substances Subject to the PRTR Act
- ▶ Preserving air quality
- ▶ Preserving water quality
- ▶ Biodiversity
- ▶ Environmental Accounting
- ▶ INPUT⇒OUTPUT
- ▶ Environmental Impact Assessment
- ▶ Handling Environmental Complaints

- ▶ Chemical Management

- ▶ Goals and Results
- ▶ Ensuring the Safety of Chemicals and Products
- ▶ Risk Assessments for Mitsui Chemicals Products

- ▶ Quality

- ▶ Goals and Results
- ▶ Quality Improvement Initiatives

- ▶ Logistics

- ▶ Goals and Results
- ▶ Transporting Products Safely

- ▶ **Communication with Society**

- ▶ Respect for Human Rights

- ▶ Basic philosophy on human rights

- ▶ Working with our Customers


- ▶ Marketing “Meister” system

- ▶ Working with our Suppliers

- ▶ Goals and Results
- ▶ Purchasing Policy
- ▶ CSR Procurement

- ▶ Working with our Shareholders

- ▶ Goals and Results
- ▶ Disclosure of Information to Shareholders
- ▶ Basic Policy on Profit Sharing

- ▶ Working with our Employees    Booklet P15 (PDF: 151KB) 
  - ▶ Goals and Results
  - ▶ Promoting and utilizing human resources
  - ▶ Creating an Employee-Friendly Working Environment
  - ▶ Employee Health
  - ▶ Labor relations based on open dialog and mutual understanding
- ▶ Working with Industry and Academia
  - ▶ Goals and Results
  - ▶ Promoting Joint Research Projects
- ▶ Working with Local Communities
  - ▶ Goals and Results
  - ▶ Dialog with Local Communities
  - ▶ Exchange with Local Communities
  - ▶ Public Recognition
- ▶ Social contribution activities
  - ▶ Goals and Results
  - ▶ Nurturing Future Generations
  - ▶ Disaster Relief
  - ▶ Support for Employees' Social Contribution Activities
  - ▶ Support for Intellectual Property Education
- ▶ Disaster Recovery Support
  - ▶ Report on disaster recovery support following the Great East Japan Earthquake

## ▶ Feedback from Inside and Outside the Company

- ▶ Comments regarding our CSR Report 2012
  - ▶ Results of the Survey

## ▶ Performance Data

- ▶ Performance Data

## ▶ Guideline Cross-Reference Tables

- ▶ GRI Guidelines Cross-reference List
- ▶ Mitsui Chemicals' Commitment to ISO 26000

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## ▶ About CSR Report 2013

- ▶ Editorial Policy
- ▶ Scope of the Report
- ▶ Referenced Guidelines

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## ▶ CSR Report 2013 Survey

## ▶ CSR Site Map