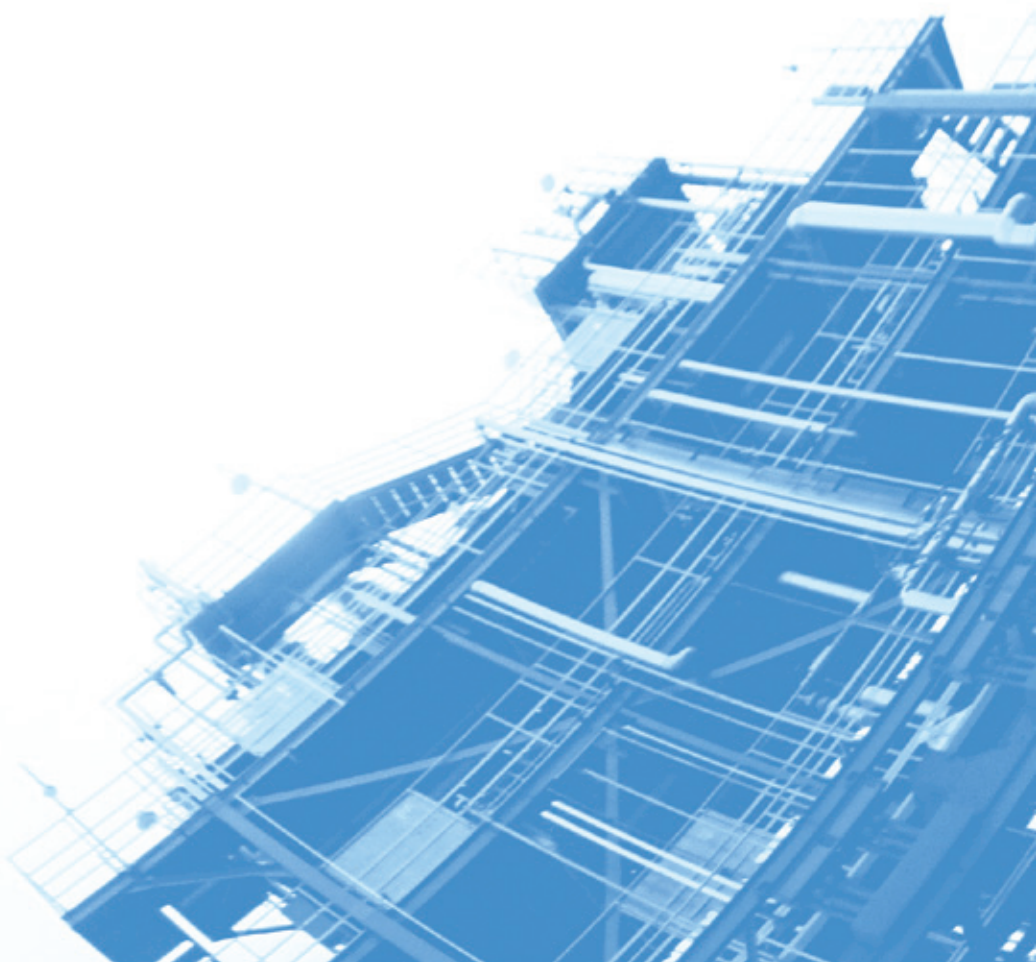
"Chemistry, Innovation, Dreams"

Mitsui Chemicals

Mitsui Chemicals Group

CSR Communication 2011



About CSR Report 2011

In the past, we have published a comprehensive, detailed report on the Mitsui Chemicals Group's CSR activities via our website, accompanied by an abridged printed version summarizing the key points from the online report.
In an effort to provide our stakeholders with the very latest information, and to make our CSR report more accessible, this year we have altered the roles performed by our online and printed reports.

Website http://www.mitsuichem.com/index.htm

We will be posting the full version of the Mitsui Chemicals Group's CSR Report on our website, to provide comprehensive and detailed content. We have also edited our report with the aim of making it more varied, readable, and accessible. We encourage readers to access the website to learn more about our extensive CSR activities here at the Mitsui Chemicals Group.

The main areas covered in this year's report are as follows.

1 CSR Management	CSR at the Mitsui Chemicals Group, Management Framework
2 Responsible Care (RC)	Occupational Health and Safety, Process Safety and Disaster Prevention, Environmental Protection, Chemical Management, Quality, Logistics,and RC Promotion System
3 Communication with Society	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
4 Feedback from Inside and Outside the Company	Results of CSR Report 2010 Survey, Third-Party Comments Regarding CSR Report 2011

Printed version

Rather than an abridged version of our online report, this year's printed version focuses on aspects of the Mitsui Chemicals Group's activities that people particularly want to read about. This includes a special feature on our frontline capabilities in the fields of manufacturing, sales and research, as part of our focus on the essence of manufacturing as a chemical manufacturer. We hope you enjoy reading it.

CSR Communication 2011: Contents

International Year of CHEMISTRY 2011

Based on the theme "Chemistry – our life, our future," this year we will be organizing a range of awareness and promotional activities, with the aim of improving understanding of chemistry amongst members of the public, getting younger generations interested in chemistry, and helping chemists to make an enthusiastic contribution to a more creative future.

Continuing to help Japan get back on its feet

We would like to offer our heartfelt sympathies to all those who have been affected by the Great East Japan Earthquake on March 11, 2011, and our sincerest condolences to the victims and those who have lost family members and loved ones.
We made every effort to support those affected by the earthquake during the immediate aftermath, starting in March by making donations to the affected area and quickly dispatching a range of supplies from our rapid-response emergency stockpiles. (See P5: Responding to the Great East Japan Earthquake)
Since then, we have continued to think carefully about what we can do here at the Mitsui Chemicals Group, and what we should be doing, to help restore and rebuild the affected area, and Japan as a whole. We are determined to contribute to society to the fullest possible extent through our business activities.

Toshikazu Tanaka
President & CEO
Mitsui Chemicals, Inc.

The impact of the earthquake on the Mitsui Chemicals Group

Despite the fact that we put safety equipment into operation and our employees performed emergency shutdowns at a number of our works immediately after the earthquake, we have now managed to restore normal operations at all of the facilities that were suspended. We were concerned that we would be unable to continue production of certain products, due to difficulties obtaining raw materials and disruption to logistics services, but we have worked flat-out to restore our supply chain, in partnership with our customers and suppliers, and have so far managed to avoid any serious issues with regard to operations or product supplies. We would like to take this opportunity to thank all those concerned for their understanding and cooperation during the process of restoring things back to normal. We are committed to resolving the issues that have been highlighted by the earthquake, with regard to our supply chain and in areas such as crisis management, so as to ensure that we remain a trusted corporate group.

Three-axis management and results for fiscal 2011

Here 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. On the economic axis, we have been working hard to reinforce groupwide marketing capabilities, to increase sales of new and high added value products, and to reduce overheads and other costs. We have surpassed our targets as a result, posting an operating income of ¥40.5 billion and successfully establishing profitability.

On the environmental axis, we have significantly exceeded our target of reducing greenhouse gas emissions by 50,000 tons, achieving a reduction of 90,000 tons through initiatives such as installing facilities to effectively harness LNG cold heat in conjunction with local companies at our Osaka Works. As to our goal of reducing accidents in the workplace on the social axis, although we have made improvements, we have unfortunately been unable to meet our targets and still have a number of outstanding issues to address.

Mid-term business plan and three-axis management targets

Having formulated the Mitsui Chemicals 2011 Mid-Term Business Plan in November 2010, we have set aside the three-year period from fiscal 2012 to 2014 to lay the foundations for growth. As such, we intend to build a business portfolio that ensures growth potential and durability and create a chemical company with a global presence, especially in Asia.

Our current mid-term business plan will once again be based on three-axis management. In addition to continuing our mission to achieve world-leading occupational safety standards on the social axis, we intend to switch our reduction targets for greenhouse gas emissions from specific consumption (reducing emissions per unit of production) to overall emissions on the environmental axis, in an effort to reduce emissions by 9% compared to levels in fiscal 1991 (approximately 500,000 tons).

Dealing with power shortages

With eastern parts of Japan facing prolonged power shortages, we are implementing power saving measures at all of our works, so that we can fulfill our supply obligations whilst also responding to public demand to save electricity. At our Ichihara Works (Chiba prefecture), our largest facility in eastern Japan, we generate all of the power we need in-house, as well as supplying approximately 10,000 kilowatts of surplus power to local power companies. We are also working to save electricity wherever possible through measures such as suspending selected equipment, altering operating hours, changing weekly holidays and grouping together holidays over summer, and are steadily reducing the amount of power we consume.

In-house turbine facilities at the Ichihara Works

Taking positive steps towards recovery

The Great East Japan Earthquake caused a great deal of damage and affected many people. As a result, the future of the Japanese economy is expected to remain uncertain for the time being. The earthquake also brought about substantial changes in the environment, and has prompted us to reexamine the country's entire attitude to energy and consumption.

Here at the Mitsui Chemicals Group too, we are making every possible effort to fulfill our supply obligations, in our capacity as a chemical company supplying people with a wide range of materials, so that we can speed up the recovery process as much as possible. We intend to think long and hard about the role that society needs us to play following the earthquake, and to quickly confront new developments head-on so that we can make a difference to society as a whole, through activities such as developing and supplying those materials that harness natural energy and achieve energy savings. We hope that all of you will let us know exactly what you think about our efforts, both now and in the future.

Responding to the Great East Japan Earthquake

Under the supervision of the President, Mitsui Chemicals set up an emergency headquarters immediately after the earthquake and set about ascertaining the impact on the Mitsui Chemicals Group, so as to quickly determine and implement response and support measures.
The following section outlines the impact on the Mitsui Chemicals Group and levels of support for the affected area as of June 30, 2011.

1 Impact on production activities

Although we suspended some facilities at a number of works immediately after the earthquake, we quickly managed to get them back up and running again with the exception of the Kashima Works*, which is located in an industrial complex that was damaged by the tsunami.
We were also concerned that we would be unable to continue production of certain products, as a result of suppliers suspending operations and difficulties obtaining raw materials due to disruption to logistics services. We have nonetheless managed to resolve all such operational issues to date.

* Polyurethane product manufacturing facility in Kamisu, Ibaraki prefecture. Operations restarted at the end of June, after scheduled routine shutdown for maintenance.

2 Support for the affected area

Providing relief supplies

- We routinely stockpile Mitsui Chemicals products in dedicated warehouses at our works, as a source of relief supplies in case of an emergency. Using those supplies, we sent a range of materials (see below) to evacuation shelters in Kesennuma (Miyagi prefecture) during the period from five days after the earthquake until the end of March, in partnership with NGO workers on the ground.

  - Polyurethane mattresses (to provide cushioning on the floor and keep out the cold)
  - Waterproof tarps (to keep water out and provide protection)
  - Food wrapping film (to cover dishes so they don't need to be washed, and to cover up injuries in an emergency)
  - Plastic water tanks (to store drinking water and transport water)
  - Basic biodegradable dishes

- We have been providing relief supplies in line with needs in the affected area since then, including sending polyurethane mattresses to the cities of Kamaishi and Tono in Iwate prefecture in May.

Loading relief supplies for the affected area

Donations

- We donated ¥100 million to people in the affected area via the Central Community Chest of Japan. We also sent donations totaling over ¥70 million from our affiliates around the world and over ¥20 million from Group employees.

Additional support

- As there was a shortage of fire engines after the earthquake, we loaned one of the large chemical fire engines that we use at our Iwakuni-Ohtake Works (Yamaguchi prefecture) to JX Nippon Oil & Energy for use at its Sendai Refinery.
- We are also offering additional social activity leave to employees engaging in volunteer activities (up to a maximum of 10 days a year for employees taking part in disaster relief activities).

3 Dealing with power shortages

Mitsui Chemicals is implementing the following measures at major works and facilities serviced by Tokyo Electric Power and Tohoku Electric Power in an effort to achieve our overall power-saving target of 15%.

Ichihara Works (Chiba prefecture)	Operating in-house generation facilities at full capacity in order to reduce consumption of purchased electricity to zero Upgrading facilities and supplying Tokyo Electric Power with approximately 10,000 kilowatts
Kashima Works (Ibaraki prefecture)	Exclusively using electricity generated by communal onsite generation facilities (zero purchased electricity)
Head Office (Tokyo)	Reducing power consumption by approximately 20% compared to fiscal 2011 through measures such as reducing lighting and adjusting air conditioning
Other works	Suspending selected equipment, operating only on holidays and at night, reducing lighting, etc.

Harnessing the power of chemistry to make dreams come true

There are major changes going on all around us at the moment.
Here at Mitsui Chemicals, we firmly believe that now is the time for chemicals to shine.
One thing that will never change, however, no matter what happens, is our commitment to frontline capabilities.
Mitsui Chemicals' manufacturing prowess is built on our strength on the frontline.
We are constantly striving to improve and reinforce our frontline capabilities, through dedication and hard work on a day-to-day basis.
We have always used our frontline capabilities to take on new challenges, and will continue to do so, now and in the future.

Mitsui Chemicals'

Frontline Capabilities

STORY 01 P.8-9

Manufacturing on the Frontline

Creating operators with a real "feel" for manufacturing

STORY 02 P.10-11

Sales
on the Frontline

A coalition of manufacturing, sales and research to earn customer trust

STORY 03 P.12-13

Research
on the Frontline

Creating added value through dedication and passion

Creating operators with a real "feel" for manufacturing

In May 2006, we set up a Plant Operation Technology Training Center at Mitsui Chemicals' Mobara Branch Factory in Chiba prefecture to provide training for chemical plant operators.
The center forms part of our frontline manufacturing operations at Mitsui Chemicals, handling everything from planning training for human resources on the shop floor to organizing actual training using hands-on training facilities.

The contradiction between evolving plants and manufacturing on the shop floor

Petrochemical plants have gone through a series of changes as they have become safer and more sophisticated, from the large-scale expansion of facilities during the 1960s and 70s to the switchover from analog instrument panels to computer-based distributed control systems (DCS) in the 1980s. As we have made more and more progress with automation and improved safety measures, however, operators have found themselves having to resolve fewer problems. This has created something of a contradiction, in that operators these days lack the well-honed sensibilities and expertise that they would previously have gained by dealing with problems.

Yasushi Handa
Director, Plant Operation Technology Training Center
Planning & Coordination Division, Production & Technology Center

Over the last decade or so, we have been building more plants in other countries than in Japan, in an effort to remain internationally competitive. This means fewer opportunities for operators to get involved in the construction process and learn about the structure and basic principles behind a chemical plant, which are the cornerstones of manufacturing.

As a petrochemical manufacturer, this contradiction is having a direct impact on our manufacturing capabilities. The so-called 2007 Problem, brought on by the mass retirement of experienced operators from the baby boom generation, has made matters even worse.

Having previously focused on standardizing plant operations and technical standards ever since Mitsui Chemicals was established in 1997, following the merger between Mitsui Petrochemicals Industries and Mitsui Toatsu Chemicals, the final frontier on the shop floor was to train the operating staff who work on the manufacturing frontline. In order to make the on-the-job training (OJT) schemes already in place at individual works more effective, we established an educational framework and created a new system whereby the Production & Technology Center would take the lead in organization training, using full-scale hands-on training facilities. The result was the establishment of the Plant Operation Technology Training Center in 2006.

"Our aim is to act as the cornerstone of manufacturing at Mitsui Chemicals, by producing operators with strong all-round skills, from operating machinery to safety and equipment", comments Plant Operation Technology Training Center Director Yasushi Handa, who has been in charge of the project from the beginning.

Learning about the structure and principles behind safety and equipment through extensive hands-on training

Occupying an area of roughly 10,000 square meters in one corner of the Mobara Branch Factory, the Plant Operation Technology Training Center features a methanol distillation training plant, training apparatus for basic operations, a DCS control room and cut-away models of a wide range of plant components. Training is provided by a

1 Trainees listen intently to learn about liquid exposure and liquid seal at a safety experience facility

2 Classroom discussion sessions also provide an invaluable opportunity to learn about measures implemented at individual plants and works, and for trainees to share their experiences

3 Actually simulating a sudden drop or fall using a safety harness

Naoshi Hagihara
Plant Operation Technology Training Center
Planning & Coordination Division, Production & Technology Center

team of 13 instructors and is aimed at around 2,000 operators at Mitsui Chemicals' six domestic works and operators working at overseas plants. In the five years since the center opened its doors, a total of 2,000 operators have undergone training, with a further 200 trainees and guests visiting from other countries.

As an example, domestic operators have to come to the center four times; once when they joined the company and then again after six months, three years and seven or eight years. Although individual training sessions cover a wide range of topics, including safety skills in the event of an accident, explosion or fire, practical operating exercises using training plants, and the structure and principles behind items of machinery, the one common factor throughout is an emphasis on hands-on training. "We use a range of safety apparatus to simulate accidents, by lifting trainees up in harnesses around their waist for instance. We try to encourage a high level of sensitivity to safety issues, as well as training operators to question why things happen for themselves." (Handa)

Handa has also devised a curriculum that aims to hone trainees' sense of awareness even further. This involves "training human resources so that they are capable of identifying weaknesses in their own plants and coming up with solutions."

"The culture within each plant is shaped and molded by key members of staff at that moment in time. We want operators to create a new culture for themselves, one that isn't overly focused on the past. Unless we try to achieve that, we will never be able to provide manufacturing support for overseas plants in a global era." (Handa)

Human resources capable of identifying weaknesses and finding their own solutions

It is Naoshi Hagihara's job to take on board Handa's ideas and plan training for domestic operators. In addition to identifying trainees' needs, he also has to carefully align them with the company's own requirements. "Our aim is to train operators to think for themselves, so we always try to produce a curriculum with an emphasis on understanding why things happen. At the end of the day, however, the first thing we have to do is to make the center appealing enough that trainees want to come back."

Takashi Fujibuchi meanwhile, who is responsible for planning training for overseas operators, explains that "we are planning to set up training facilities at one of Mitsui Chemicals' plants in Singapore before the end of 2011 so that we can roll out activities into Southeast Asia as well."

As people often assume that chemical plants are fully automated, with no intervention required from human operators, they don't tend to associate the petrochemical industry with manufacturing. That is precisely why we need as many operators as possible who have a real "feel" for everything from operating machinery to safety and equipment. That is the only way to lay solid foundations for manufacturing.

Takashi Fujibuchi
Plant Operation Technology Training Center
Planning & Coordination Division, Production & Technology Center

Website
CSR > Special Features > STORY 01

A coalition of manufacturing, sales and research to earn customer trust

Here at Mitsui Chemicals, we are committed to improving the marketing capabilities of all of our employees.
To do that, it is essential to build trust with our customers, by understanding their difficulties and providing them with advice, particularly via sales departments.
One frontline staff in particular have breathed new life into their operations and are continuing to take on new challenges based on an integrated, wholly customer-oriented approach to business, a coalition of manufacturing, sales and research.

Success in business depends on the strength of your relationships with the customer

One of the products handled by the Functional Film Div., part of Mitsui Chemicals' Fabricated Products Business Sector, is Mitsui Pellicle, a dust-proof film designed to keep semiconductor photomasks clean. Made from a unique ultra-thin dust-proof membrane, it is used by semiconductor manufacturers as part of the photolithography* process. Films vary in thickness from 0.8 to just 0.3 micrometers.

"The key thing about pellicles is that they are custom-made products," explains head of pellicle operations Fumiya Miyata. "Pellicles vary in size and thickness depending on the semiconductor photomask being manufactured by the customer. We have over 100 different products at Mitsui Chemicals alone. The only way to maintain sustainable growth is to precisely identify customers' needs and continually refine and improve your products. That's the sort of business it is."

Mitsui Chemicals was one of the first companies to enter the pellicle sector and has already built up a track record dating back almost 30 years. The global pellicle market is estimated to be worth around ¥10 billion. Although it isn't a huge market, that makes it all the more profitable for the leading companies. Including Mitsui Chemicals, there are currently six companies in competition with one another within the global market. "Shortly after joining the company, I spent three months training with the company's pellicle manufacturing department and was amazed to witness the development of such cutting-edge products." (Miyata)

Before he knew it, Miyata found himself back on the frontline in October 2007 as the head of Mitsui Chemicals' pellicle operations. To his dismay however, those same cutting-edge products seemed to have lost their shine.

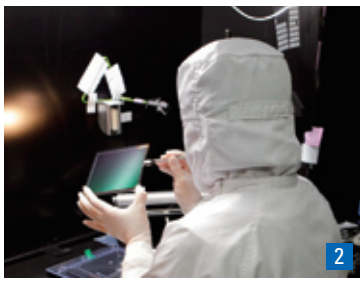
* Photolithography is a light-base process that involves transferring photoresist (light-sensitive resin) into a specific pattern or design.

Know your customers and learn from them

"It just didn't feel right," recalls Miyata. "The sense of pride in working on cutting-edge products had gone, especially amongst younger members of staff." It turned out that Mitsui Chemicals had been left far behind in this particular cutting-edge field by its rivals.

There were numerous reasons, including the fact that the company had previously experienced nothing but success in its position as industry leader, the fact that manufacturing, sales and research staff had lost sight of their roles and connection to one another, and the fact that cracks had started to appear in terms of quality control.

The department responsible for manufacturing pellicles at the Iwakuni-Ohtake Works includes a production manager, a production technology team, a development team and an R&D team to name but a few. Miyata told them all to focus on two specific objectives. The first was to get to know their rivals as well as possible. The second was to go out to see customers and ask them about how they felt about the company's products in person. "In both cases, the aim was to get members of staff to understand the position they were in and work out what needed to be done. I hoped that process would restore their sense of pride in



1 Some of the latest photomask products can cost several hundred million yen per set
2 Pellicles are manufactured and checked in a clean-room environment

Fumiya Miyata
Manager, Pellicle Team Leader and Package Team Leader, Specialty Film Dept., Functional Film Div., Fabricated Products Business Sector

Kenji Kuwahata
General Manager, Pellicles Sect.
Manufacturing Dept-2, Iwakuni-Ohtake Works

working on world-leading cutting-edge products."

Miyata actively organized workshops focusing on technical trends at rival companies and continued to discuss what they were doing differently. This also served to reaffirm Mitsui Chemicals' primary objectives in the pellicle sector.

He also organized frontline networking events to give members of staff responsible for manufacturing pellicles the opportunity to talk to manufacturing, technical and quality control personnel from semiconductor photomask manufacturers. This enabled them to ask their customers directly about matters such as handling and inspecting pellicles. Dealing with tough questions and harsh criticisms repeatedly underlined the importance of good manufacturing practices and ensured that the quality of the company's pellicles continued to improve day after day.

Miyata placed his old friend Kenji Kuwahata in charge of manufacturing pellicles. Having previously worked for a semiconductor component manufacturer, Kuwahata brought with him a unique perspective in terms of quality. He put his quality control expertise to good use on the shop floor and set about establishing an improved manufacturing framework.

Kuwahata wouldn't accept improvements unless they were backed up with supporting data. His determination brought a sense of ambition back to the shop floor. "There is a saying, 'if you know your enemy and know yourself, you can win a hundred battles.' It is my job to translate that into the process of manufacturing on the shop floor." (Kuwahata)

Kuwahata also made manufacturing and R&D staff work in the same office and installed a conference call system for talking to customers, to ensure that everyone would have the same understanding of what their customers were thinking. "Our role is to take customers' technical requirements and run them past manufacturing staff straight away," explains R&D team leader Takashi Kozeki, "whilst also providing the necessary support to make quick decisions and take decisive action."

Takashi Kozeki
Superviser, Fabricated Products Development Unit 3
Fabricated Products Development Div., Fabricated Products Business Sector

Getting customers to openly confide in Mitsui Chemicals

"When you're working on the frontline with cutting-edge technologies like semiconductors, the issues you face become very specialized," explains Miyata. "Customers will only confide openly in people who understand those issues and can translate that understanding into a quick, organized response. That's how business works with cutting-edge technologies. The only way to survive is to earn customers' trust based on real environments, real products and real situations. That has to be part of your own love of manufacturing too."

Sure enough, Mitsui Chemicals is on its way to recapturing the top spot in the cutting-edge pellicle sector, having previously been on the back foot. With overseas sales accounting for well over 50%, it has been transformed into a genuinely global business. This is yet another example of Mitsui Chemicals' customer-oriented approach based on the realities of business.

Website
CSR > Special Features > STORY 02

Creating added value through dedication and passion

We have earmarked our functional film and sheet operations as priority businesses under the Mitsui Chemicals Mid-Term Business Plan, and in 2010, we combined those businesses of Mitsui Chemicals and our subsidiaries Mitsui Chemicals Tohcello and Mitsui Chemicals Fabro to integrate regarding Mitsui Chemicals Tohcello as a core.
In addition to taking over responsibility for high functional film products such as SOLAR EVA™ encapsulant sheets for solar cells and ICROS™ TAPE protective film for integrated circuits, Mitsui Chemicals Tohcello will also harness groupwide technical development capabilities in order to expand our operations in this sector.
The following article takes a look at our copper alloy coated hygienic films and sheets, part of the Mitsui Chemicals Group's range of functional film and sheet products.

The challenge of creating copper alloy films and sheets with antibacterial properties

Here at Mitsui Chemicals, we have a truly wide range of film and sheet manufacturing technologies at our disposal. This gives us great flexibility in terms of creating applied products.

With that in mind, we knew that if we focused on the well-established antibacterial properties of materials such as silver and copper and were able to develop an integrated copper and resin film, we would be able to produce a wide range of applied products for use in medical and hygiene-related fields. In our determination to achieve that goal, we began to conduct research into copper alloy coated hygienic films and sheets.

Akinao Hashimoto
Senior Researcher, Performance Film • Sheet Development Project (Leader, Team 1)
New Materials Development Center

Research got underway in 2006. "We were trying to create an integrated copper and resin film that would have antibacterial and anticorrosive properties, so that it wouldn't produce blue-green rust like copper," explains Koji Hirota from the New Materials Development Center. "We were also trying to make it as inexpensive and flexible as possible. Those were our three research objectives."

The team knew it wouldn't be easy, but the development process nonetheless proved more difficult than expected. "If we increased the copper content in order to improve the antibacterial properties, materials became susceptible to rust. Lowering the copper content meanwhile prevented us from achieving the required level of antibacterial performance. We knew that using an alloy would prevent corrosion, but we couldn't work out how to put that idea into practice. We seemed to be constantly coming up against brick walls." (Hirota)

A burning passion that got everyone involved in practical experiments

Just as they were starting to lose hope however, one of the developers had a flash of inspiration whilst reading a book about the history of copper. According to Hirota, the team spent the next two weeks working flat out, barely even pausing to sleep, until they managed to come up with an effective methodology. "It was based on a technology called vapor deposition, which involves turning metal into gas and depositing it in thin layers inside the device itself."

Using an alloy made it possible to prolong the material's antibacterial performance and prevent rust. The fact that the technology was an extension of vapor deposition technology meanwhile kept manufacturing costs to a minimum and meant that it could be used for various different applications. The team had achieved its three research objectives in spectacular fashion, in the form of a film that was just 10-100 nanometers* thick.

The next question was whether the antibacterial properties of these newly developed films and sheets would actually be effective. The team tried affixing films to the back of interview sheets at a university hospital and running comparisons against untreated sheets. One researcher tried using the film as a pillowcase, based on its odor eliminating properties. Hirota got his wife to use some film as an insole after she complained that her feet tended to get too hot when wearing stockings. Hirota himself tried running laps around the

Koji Hirota
Senior Researcher, Performance Film · Sheet Development Project
New Materials Development Center

Copper alloy thin films are thin in a range from 10 to 100 nanometers.

Products have a wide range of uses, including flexible ducts, plastic folders, masks and laundry bags.

development center and then putting his sweaty t-shirt in a bag made from the same sheeting… Everyone got involved in this series of simple experiments, even researchers and their families.

One experiment in particular involved affixing antibacterial films onto folders used for interview sheets. The results (see chart below) indicated a high level of antibacterial performance. “We are planning to take this to market at the start of fiscal 2012, including applied products,” explains development project team leader Akinao Hashimoto. “We’re thinking about giving out samples to people running the marathon around the Imperial Palace and getting them to see how effective they are.” Clearly, there are already new ideas in the pipeline.

Hashimoto and Hirota have named the materials in question “CopperStopper™ copper alloy coated hygienic films and sheets.” The inspiration came from the English word “copper” and the image of bacteria being stopped by a police officer (“cop”).

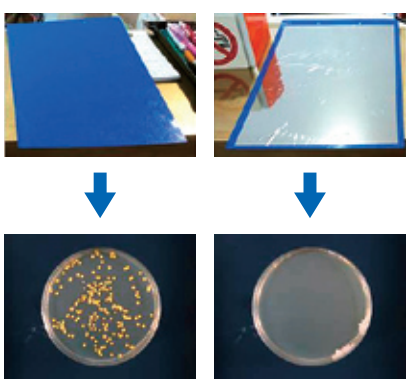
Most research and development is fairly unglamorous, consisting of a process of trial and error. When simple activities such as these produce concrete results however, there is a real sense of joy that you only get on the frontline of research and development.

* Nanometer: One billionth of a meter

Website
CSR > Special Features > STORY 03

Test results for interview sheet binders

Evaluated by Dr. Takeshi Sasahara, Kitasato University School of Medicine



Results for general bacteria after five months in use

Comment

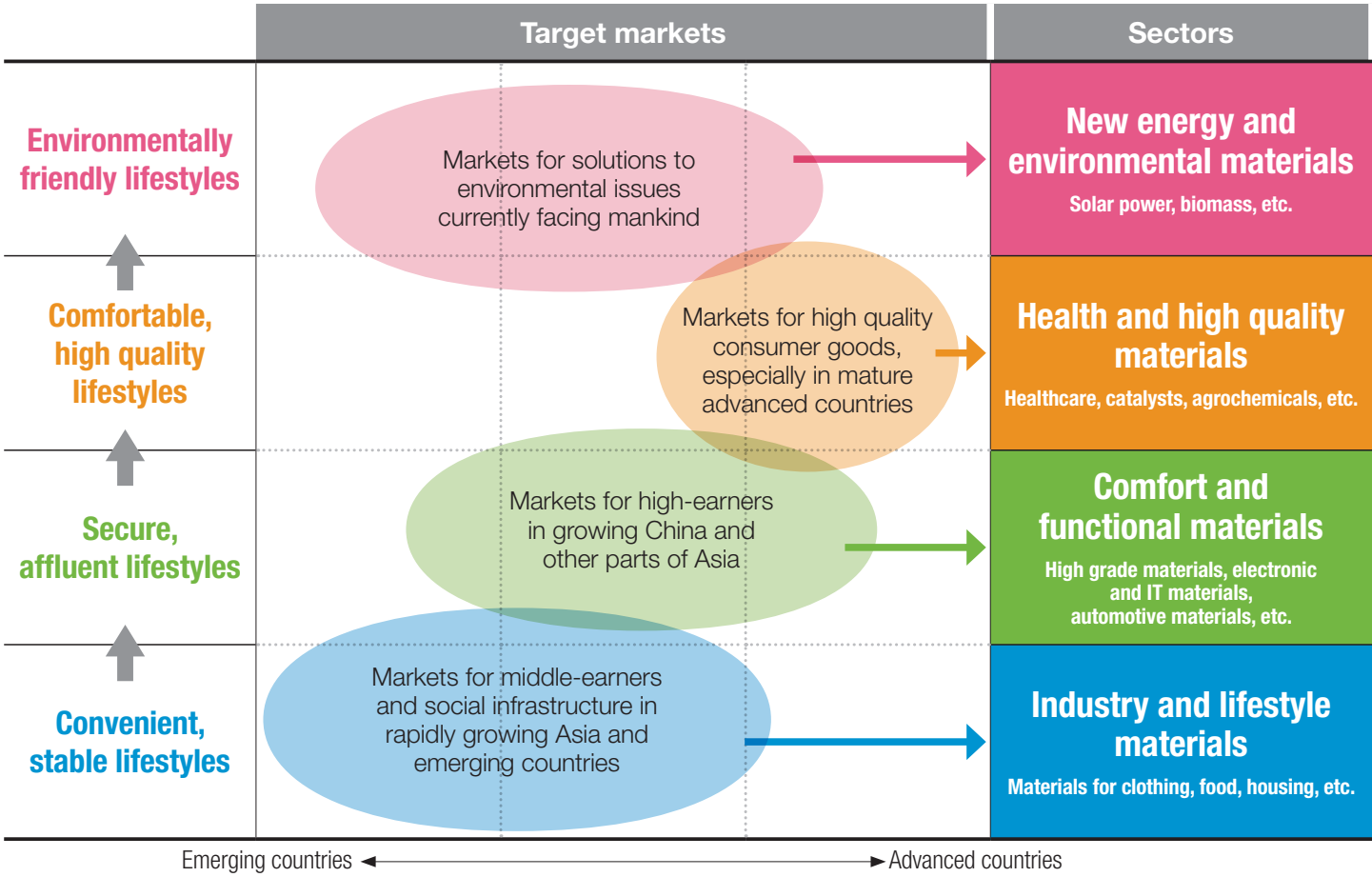
In addition to ensuring medical safety at all times, healthcare facilities also place top priority on combating hospital-acquired infections. At Kitasato University Hospital, we are currently trialing measures to improve hygiene by harnessing the potential antiseptic properties of copper and copper alloys. Trials have clearly shown a reduction in bacterial counts on surfaces such as door handles and wash stands that have been treated with copper. Just as we were thinking that it would be impossible to apply the same principles to items such as bedding and plastic folders, however, we came across a research team from Mitsui Chemicals, which is known for its outstanding polymeric and petrochemical manufacturing technology. They gave us their full support and came up with the idea for CopperStopper™, a unique corrosion-resistant copper alloy film with antibacterial properties. I have high hopes for the development of products in other everyday fields in the future, as well as healthcare.

Takeshi Sasahara
Doctor of Medicine
Kitasato University School of Medicine

Harnessing our strengths to pave the way for a new growth trajectory

**We set out our "2011 Mid-Term Business Plan" in order to lay the foundations for new growth, with the aim of transforming our business portfolio and globalizing management practices based on our vision for the future, ten years down the line.
From underpinning social infrastructure in the industry and everyday materials sector, to confronting the challenges currently facing society in the energy and environmental materials sector, we are determined to make use of the strengths of chemicals to establish Mitsui Chemicals as a chemical company with a global presence.**

Mapping out our "2011 Mid-Term Business Plan" (FY2012-2014)



Identifying Key CSR Challenges for FY2012

To live up to the requirements and expectations of our stakeholders and society as a whole, and to ensure that every member of the Mitsui Chemicals Group is moving in the same direction, we have clearly set out our Key CSR Challenges for the year ahead.

1

Create a "strong frontline" to

Provide safety, reassurance and stability

Our main objective here at the Mitsui Chemicals Group is to provide society with a range of materials. As such, we have a fundamental corporate social responsibility to manufacture our products safely so as to prevent any risk to our employees or members of society, to supply products that people feel completely safe using, to ensure stable supplies of such products, and to provide seamless support for social infrastructure.
To reaffirm our commitment to fulfilling our responsibilities on a companywide basis, we have made it our first Key CSR Challenge to "create a 'strong frontline' in order to provide safety, reassurance and stability."

Corporate Mission

Contribute broadly to society by providing high-quality products and services to customers, through innovations and the creation of materials, while keeping in harmony with the global environment

Vision

- A chemicals company with a global presence, especially in Asia
- Building a business portfolio that ensures growth potential and durability

Mid-Term Business Plan Management Target (FY2014)

Financial Target
◇Profitability indicator: Consolidated operating profit of 100 billion yen

Environmental Target
◇Reduction in greenhouse gas emissions of 500,000 tons compared to FY1991 (9% reduction)

Social Targets
◇World-leading occupational safety standards (frequency of accidents requiring suspension of operations*1: 0.15 or less)
◇Chemical risk assessments (70 substances subject to disclosure*2)

*1 Frequency of accidents requiring suspension of operations: Number of occupational injuries requiring days off × 1 million hours ÷ total hours worked by all employees
*2 Number of substances subject to disclosure: Number of voluntarily conducted chemical risk assessment results disclosed to customers and the general public

2011 Mid-Term Business Plan Basic Strategies

Ⅰ. Expansion of businesses more resilient to changing economic conditions

- Quickly expand functional chemicals through M&A
- Accelerate overseas expansion by harnessing group-wide technical development capabilities

Five Priority Businesses

- Fine chemicals (healthcare, catalysts)
- Agrochemicals
- Functional films, functional sheets and spunbonded fabrics
- Coatings and adhesive materials
- Engineering plastics and compounds

Ⅱ. Global expansion of highly competitive businesses

- Quickly secure share of rapidly growing demand in Asia through collaboration with leading partners

Five World-Leading Businesses

- Phenol chains (phenols, BPA, etc.)
- Polyolefin compounds (polypropylene compounds, etc.)
- Elastomers
- Metallocene polymers
- Highly refractive optical lenses

Ⅲ. Creation of core businesses for the future

- Prioritize and increase efficiency in R&D
- Establish new business models

Five Developing Areas

- Solar power components
- Electronic and information films
- Eco-friendly vehicles (lightweight materials, lithium ion battery components)
- Next-generation functional chemicals products(next-generation agrochemicals, dental materials)
- Biomass chemicals

Ⅳ. Sustained competitiveness in the domestic market

- Restructure uncompetitive operations and streamline domestic plants
- Significantly cut back on back-office departments

Create a “strong frontline” to

Focus on technology, business and products to help resolve global issues

2

We need to take action on a global scale to tackle a whole range of issues, including biodiversity, food shortages, water resources and the depletion of scarce resources, as well as global warming. As a chemical company producing a range of materials, we have an increasingly important role to play in that process.
It is essential that we keep on trying to resolve global issues such as these through our production technologies, products and services, to ensure the sustainable development of Mitsui Chemicals and society as a whole. We have made it one of our Key CSR Challenges to “focus on technology, business and products in order to help resolve global issues,” and intend to think carefully and take on new challenges on the frontline at every level.

Create a “strong frontline” to

Improve employee awareness and conduct as a trusted corporate group

3

All of our activities as a company are carried out by our employees. Retaining the trust from society depends heavily on the awareness and conduct of the individual employees who interact with our stakeholders on a day-to-day basis.
Here at the Mitsui Chemicals Group, each and every one of our employees has a role to play in creating a “strong frontline,” as part of our ongoing efforts to “improve employee awareness and conduct as a trusted corporate group,” with the aim of establishing ourselves as a “good and trustworthy company” that is trusted by society.

The Mitsui Chemicals Group's Business Categories and Main Products

This section looks at the role of the Mitsui Chemicals Group, and our main businesses and products, in each sector.

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.

Packaging Materials

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

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

Mitsui PET™ resin 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 functional packaging for food and everyday items.

Basic Chemicals

Raw materials for polyester fibers

- Purified terephthalic acid (PTA)

Phenols

- Polycarbonate resins

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

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

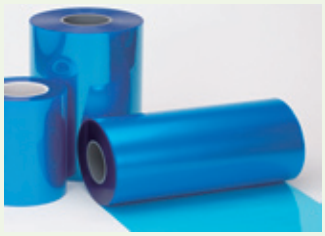
- ICROS™ TAPE

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.

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.

Disposable diapers and everyday items

Nonwoven fabric

- SYNTEX™

Breathable film

- ESPOIR™

Synthetic pulp

- SWP™

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

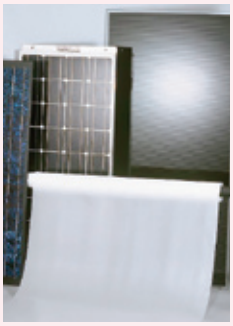
Thanks to its heat sealability, SWP™ pulp is used in packaging for a wide range of medical applications and food products, such as teabags.

Materials for eco-friendly vehicles

Lithium ion battery components
- MiReT™ (electrolytes)
- CHEMIPEARL™ (electrode binder)

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.

Lightweight automotive materials

Adhesive polyolefins
- ADMER™

Olefin copolymers
- TAFMER™

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.

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.

Biomass chemicals

Biopolyurethane
- ECONICOL™

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

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.

Pharmaceuticals

Energy drinks
- Taurine

Taurine is an amino acid that helps to produce the energy we need to keep us alive and enables various metabolic processes. It is used in products such as energy drinks.

Agrochemicals

Agrochemicals
- Aniki™ emulsion pesticide
- Afetto™ flowable pesticide

Hybrid rice seeds
- Mitsuhikari 2003 and 2005

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

Aniki™ is an environmentally friendly emulsion pesticide whose active ingredients break down easily after application in order to protect crops.

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.

The Mitsui Chemicals Group's Global Operations

We continue to expand our global operations here at the Mitsui Chemicals Group in an effort to improve and enrich people's lives the world over.

China

Working in Partnership with China Petroleum & Chemical Corp. (Sinopec)

In December 2009, we entered into two agreements with China Petroleum & Chemical Corp. (Sinopec): a Memorandum of Understanding Regarding New Projects, relating to phenols and acetone, and a Memorandum of Understanding Regarding a Feasibility Study to Promote Joint Ventures, relating to EPT (ethylene propylene diene monomer). After much discussion, in 2010 we agreed to establish a new phenol and acetone project and EPT plant in Shanghai. We intend to make the most of both companies' strengths so that we can turn this into an internationally competitive joint venture and secure a share of the burgeoning Chinese market as soon as possible.

Signing ceremony with Sinopec

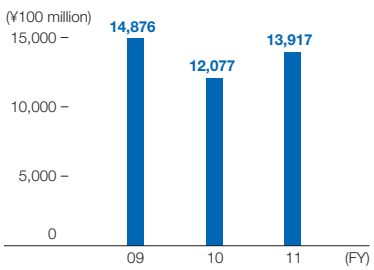
Singapore

Opening Ceremony for Second TAFMER™ Plant in Singapore

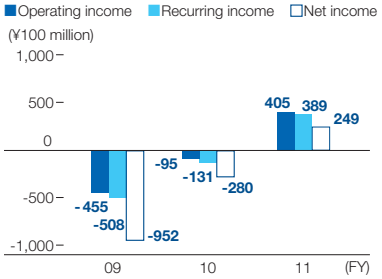
On July 13, 2010, Mitsui Elastomers Singapore (MELS), one of our wholly owned subsidiaries in Singapore, hosted a ceremony to mark the official opening of its second high performance elastomer (TAFMER™) plant. Numerous officials attended the ceremony, including the Singaporean Minister for Trade and Industry and the Chairman of the Singapore Economic Development Board. The second MELS TAFMER™ plant incorporates our latest polymer design technologies, metallocene catalysts, and production processes into a world-class, state-of-the-art production facility. This new and strategically important production base will further strengthen the company's platform as a global provider of high performance elastomers. We intend to maintain our leading share of the Asian market, including in Japan, by providing high quality products and reinforcing our technical support network, whilst at the same time expanding our operations in Europe and the US to consolidate our position in the global market.

The second MELS TAFMER™ plant

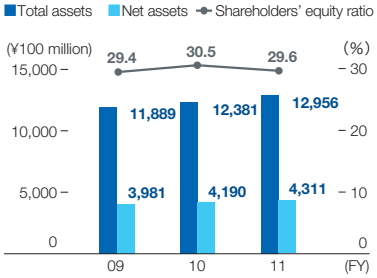
Net Sales



Operating income, recurring income and net income



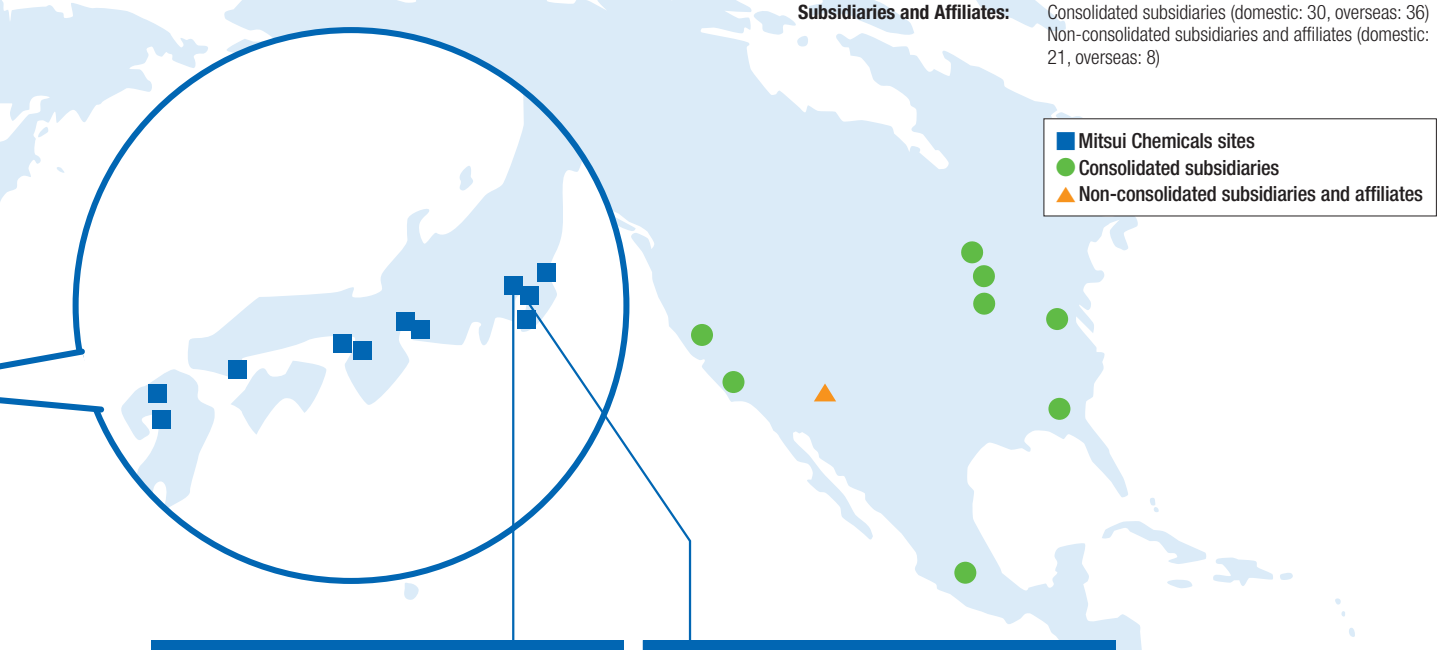
Total assets, net assets and shareholders' equity ratio



Corporate Profile

Name: Mitsui Chemicals, Inc.
Head Office: Shiodome City Center, 1-5-2 Higashi-Shimbashi, Minato-ku, Tokyo 105-7177
President & CEO: Toshikazu Tanaka
Paid-in Capital: ¥125.053 million
Employees: 12,782 (consolidated) (as of March 31, 2011)

Domestic Manufacturing Sites: Kashima Works, Ichihara Works (including Mobara Branch Factory), Nagoya Works, Osaka Works, Iwakuni-Ohtake Works (including Tokuyama Branch Factory), Omuta Works
R&D Laboratory: Sodegaura Center
Domestic Sales Offices: Head Office and three branches (Nagoya, Osaka, and Fukuoka)
Overseas Office: Beijing Office
Subsidiaries and Affiliates: Consolidated subsidiaries (domestic: 30, overseas: 36) Non-consolidated subsidiaries and affiliates (domestic: 21, overseas: 8)



Japan

Integration of Plastic Bottle PET Resin Operations with Teijin

As a result of discussions between Mitsui Chemicals and Teijin Limited, regarding the integration of domestic plastic bottle PET (polyethylene-terephthalate) resin operations in an effort to pursue synergy between our respective production, sales and research capabilities in the face of difficult conditions in the PET sector, since April 2011 we have commenced operations at MCT PET Resin Co. Ltd. as a joint venture with Teijin Chemicals Limited. We intend to achieve synergy between our two companies, including increased operational efficiency as a result of consolidating production, improved marketing capabilities as a result of integrating our sales departments, and enhanced technical capabilities as a result of combining production divisions. As Teijin also manufactures paraxylene (PX), the raw material used to make PET resin, we are also aiming to establish a decisive competitive advantage throughout the supply chain, including Teijin's PX operations and our own purified terephthalic acid (PTA) operations.


Signing ceremony with Teijin

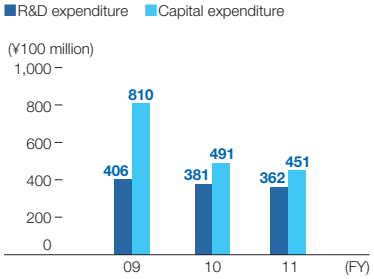
Japan

Commencement of integrated ethylene operations with Idemitsu Kosan

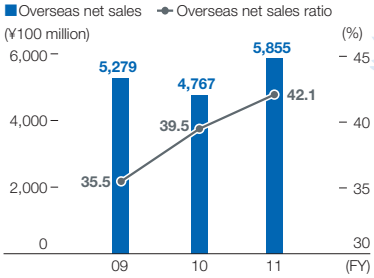
On April 1, 2010, we established a limited liability partnership (LLP) with Idemitsu Kosan Co. Ltd. with the aim of integrating operations at both companies' ethylene equipment. Although we still need to iron out the specifics of operational integration, we began to transfer ethylene equipment from both companies and integrate operations under the new LLP on October 1. As part of the LLP, we intend to carefully plan and operate production at optimum levels, based on the volumes of ethylene, propylene and other substances used in derivative production by Idemitsu Kosan and ourselves.


The Ichihara Works, where we manufacture ethylene and propylene

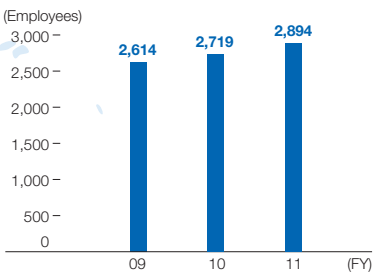
R&D and capital expenditure



Overseas net sales and sales ratio



Number of employees at overseas consolidated subsidiaries



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http://www.mitsuichem.com/index.htm

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This publication has been printed on FSC certified paper containing wood from appropriately managed forests.

森の町内会
間伐に寄与する紙
www.mori-cho.org

The paper used for pages 3 to 18 of this publication will help to support forest thinning activities and promote the use of thinned wood, in the interests of healthy forests.

ノンVOCインキ Ver.2

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GOLD+
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E3PA: Environment Pollution Prevention Printing Association
http://www.e3pa.com

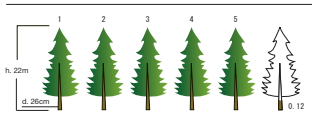
Japan Smart Energy Co., Ltd.

By reusing 7.01 kg of aluminium plate used during the printing process, Mitsui Chemicals has reduced

CO_2 emissions by 71.43 kg.

MCP 0004
Minus Carbon Printing systems

Japan Smart Energy Co., Ltd. rigorously and impartially inspects and verifies all printing systems before awarding CO_2 reduction certificates.



71.43 kg of CO_2 is equivalent to the amount of CO_2 absorbed by approximately 5.12 50-year-old cedar trees (height 22 m / diameter: 26 cm) over the course of one year.

(Source: Forestry Industry White Paper)

Mitsui Chemicals is participating in a reforestation project aimed at planting 3,000 trees in national parks in the Indonesian province of Bali by using the method of Minus Carbon Printing (MCP).