



**SUMITOMO BAKELITE CO., LTD.**



*Sumitomo Bakelite*



**Environmental & Social Report 2006**

*Environmental & Social Report*

(April 2005–March 2006)

2006

# Contents

- 02 Message from the President
- 03 Corporate Governance and Compliance
- 06 Management Policies and Corporate Policies for Safety, Health, and the Environment
- 07 Promotional Organization
- 08 Environmental Targets—Domestic Business Sites
- 09 Summary of Environmental Impact Reduction Activities
- 10 Environmental Targets—Overseas Business Sites
- 11 Environmental Accounting
- 13 Environmental Impact Material Balance
- 14 Environment-Conscious Products
- 17 Reduction of Environmental Impact Substances
- 19 CO<sub>2</sub> Emissions and Energy Conservation
- 21 Waste Disposal
- 23 Recycling
- 24 Chemical Product Safety
- 25 Audits, Education and Training
- 26 Environmental and Safety Measures in Distribution/Green Purchasing
- 27 Asbestos Handling, CFC Initiatives, PCB Management, and Responses to Environmental Complaints
- 28 Soil and Groundwater Contamination Assessments
- 29 Site-Specific Environmental Impact Data—Domestic Business Sites
- 31 Site-Specific Environmental Impact Data—Overseas Business Sites
- 33 ISO 14001 Certification
- 34 History of Environmental Conservation Activities
- 35 Occupational Safety and Health
- 37 Safety and Accident Prevention
- 38 Employment and Human Rights/Human Resources Development
- 41 Product Liability
- 43 Community Activities
- 44 Independent Review Report
- 45 Corporate Data

## Editorial Policy

Sumitomo Bakelite Co., Ltd., has disclosed its environmental initiatives since the 1998 publication of the *Environmental Activities Report*, which became the *Environmental Report* in 2001. In 2005, we enhanced information on our social initiatives in the *Environmental & Social Report*.

Regarding the preparation of this 2006 version of the report,

- We have striven to prepare an easy-to-understand, easy-to-read style and format for readers,
- We have referred to the Ministry of the Environment's *Environmental Reporting Guidelines* (fiscal 2003 version), and
- Since 2001, we have included an independent review to raise the report's credibility.

## Scope of *Environmental & Social Report 2006*

### ● Period

Fiscal 2005 (April 2005 to March 2006)  
Some activities mentioned in the report include those undertaken in fiscal 2006.

### ● Business Sites (Company names as of August 2006)

Sumitomo Bakelite Co., Ltd.

Amagasaki Plant (including subsidiaries and consolidated affiliates on the premises)

Shizuoka Plant (including subsidiaries and consolidated affiliates on the premises)

Industrial Resin & Molding Compounds Plant

Utsunomiya Plant

Tsu Plant

Fundamental Research Laboratory

Kobe Fundamental Research Laboratory

Akita Sumitomo Bakelite Co., Ltd.

Artlite Kogyo Co., Ltd.

Sumibe Techno Plastic Co., Ltd.

Hokkai Taiyo Plastic Co., Ltd.

Yamaroku Kasei Industry Co., Ltd.

Kyushu Bakelite Industry Co., Ltd.

Suzuka Plant, Decolanitto Co., Ltd.

Please refer to page 10 for information on overseas subsidiaries.



## Message from the President



Tomitaro Ogawa,  
President

The Sumitomo Bakelite Group's management policy is to make a contribution to social progress and a higher standard of living through its business activities while placing a strong emphasis on trust. Our mission is to become a leading "transnational company" that produces plastics of greater sophistication and sustains its growth in the field of functional chemistry by creating customer value.

As a priority management issue in line with our basic policy, and while championing "management that is highly compatible with society and the environment," Sumitomo Bakelite established Our Standards of Conduct, a code of conduct to which each and every Company employee must adhere to when performing his/her work. Under this policy, the Company rigorously promotes standards of conduct in each and every Group company, including overseas subsidiaries.

Sumitomo Bakelite began participating in Responsible Care activities, a global chemical industry initiative, from the time they were first introduced in Japan in 1995. We continue to work to minimize environmental, safety, and health-related impacts throughout product life cycle stages as part of the initiative, from the development and manufacturing of products to their use and final disposal.

In practical terms, we define environment-conscious products as products that are free of hazardous substances, products that do not require our customers to use hazardous substances, products that contribute to energy and resource conservation, and products that facilitate the recovery and recycling of resources. As a major pillar of our R&D efforts, we are focusing on the development, improvement, and supply of these products. Sales of these products accounted for 27% of net sales in fiscal 2005, compared to 21% in fiscal 2004, which we perceive to be a result of an enhanced consumer understanding of our initiatives for environment conscious products.

Turning to successes in reducing our environmental impact, we promoted energy conservation through measures that included the year-round operation of our cogeneration system and the introduction of steam turbine compressors, which enabled us to achieve a 9.5% reduction in domestic CO<sub>2</sub> emissions (base year fiscal 1999). In addition, by switching from heavy oil to natural gas, we were able to reduce CO<sub>2</sub>, SO<sub>x</sub>, and other types of emissions by substantial margins.

The number of our zero emissions-certified domestic plants has increased by one to seven, and overseas we internally certified an overseas plant for the first time. Thanks to thorough waste separation and recycling efforts, the overall amount of zero emissions-targeted substances was 66% lower compared to the previous fiscal year and 92% lower compared to the base year.

In addition, as our first trial with thermosetting resin, we have been working to make the chemical recycling process for phenolic resin molding commercially viable. As a result, by applying supercritical fluid technology, we successfully developed a method of chemical recycling that returns thermally cured products and waste material into raw phenolic resin. Because this new method has attracted widespread interest, we are now in the process of constructing a demonstration plant.

We hope the *Environmental & Social Report 2006* will give readers a good understanding of the Sumitomo Bakelite Group's stance on environmental protection and its efforts in this area. We welcome your comments and suggestions.

August 2006

Tomitaro Ogawa,  
President



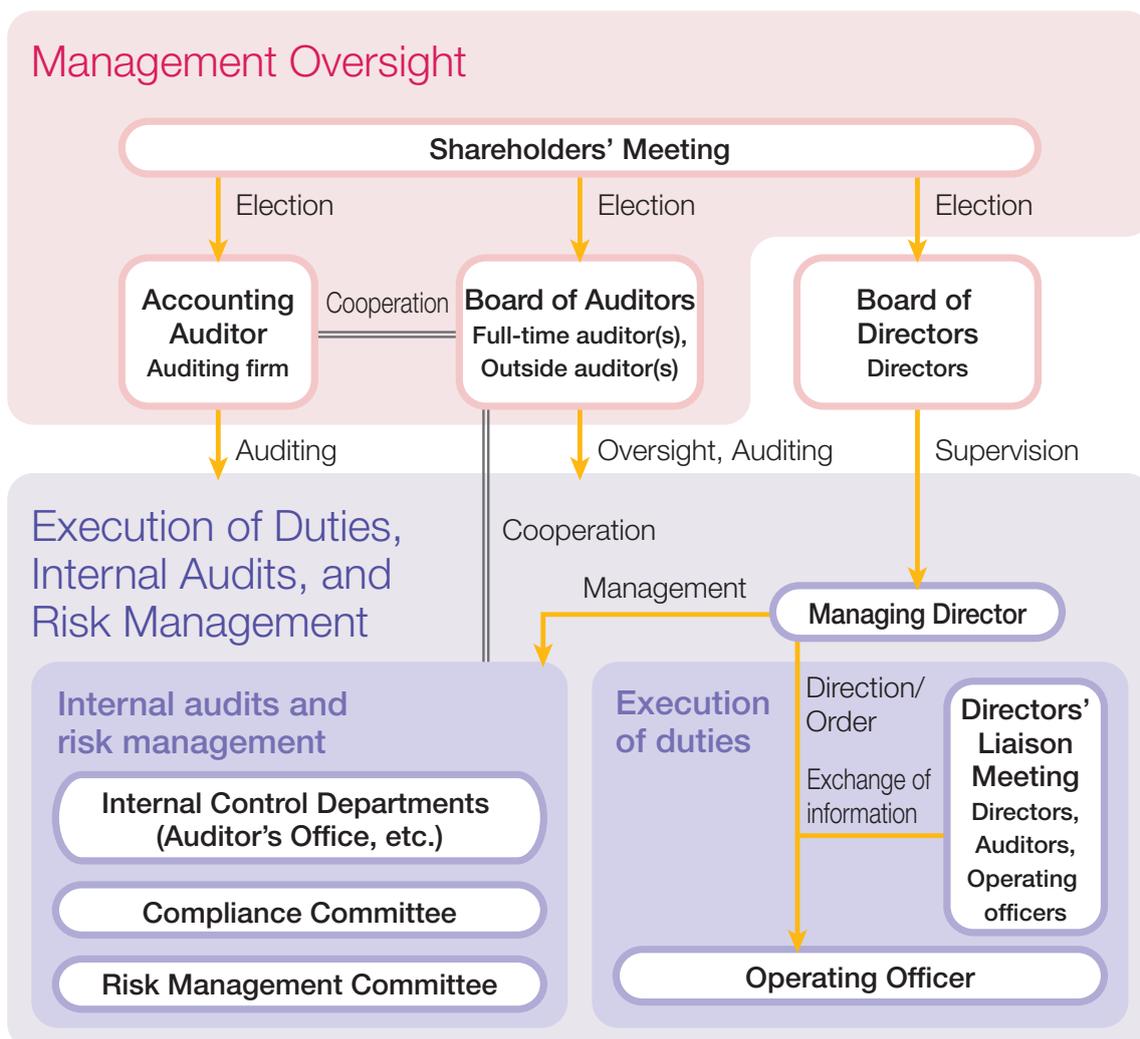
# Corporate Governance and Compliance

We will further improve our relationship with society by enhancing corporate governance and ensuring thorough compliance.

## Corporate Governance

We at Sumitomo Bakelite Co., Ltd., recognize that improving transparency and our relationship with society is fundamental to corporate governance. The Company, placing strong emphasis on trust, strives through its business activities to make a contribution to social progress and a higher standard of living and is taking steps to further improve corporate governance.

### Structure of Corporate Governance



### ● Basic Policy Regarding Internal Control System Establishment

At the Board of Directors' meeting held on May 9, 2006, a basic policy on the establishment of internal control systems was adopted pursuant to the Japanese Company Law. For more information, please refer to our corporate website (<http://www.sumibe.co.jp/english>).

## Compliance

Sumitomo Bakelite promotes management with an emphasis on compliance in recognition of the fact that adhering to laws and corporate ethics is a crucial component of business activities.

We endeavor to ensure that all the individuals constituting the Company are sufficiently informed regarding Our Standards of Conduct, a code of conduct to which each and every employee must adhere in conducting business activities. Also, we are moving forward with compliance initiatives led by the Compliance Committee. In addition, similar initiatives are being implemented at all Group companies to ensure uniform operations, and our affiliates, including those overseas, are in the process of establishing codes of conduct based on Our Standards of Conduct.

### ● Our Standards of Conduct

To further familiarize employees and ensure compliance with corporate ethics, Sumitomo Bakelite established Our Standards of Conduct and distributes them in a booklet to all employees.

#### [Our Standards of Conduct]

1. We play an important, beneficial role in our society, offering customers products and services that put customer satisfaction first.
2. We strive to improve the performance of the Sumitomo Bakelite Group, always taking a global perspective.
3. We adhere to our corporate ethics, complying with legal requirements and our bylaws both in Japan and abroad, while engaging in fair and transparent business activities.
4. We emphasize safety while independently engaging in environmental protection activities.
5. We strive to create a pleasant work environment through respect for individual personalities and human rights.

Note: The booklet includes what we should strive for as well as specific modes of behavior related to each item.

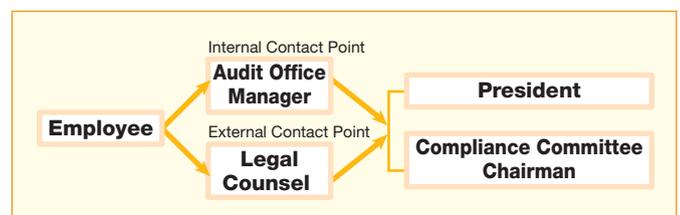
### ● The Sumitomo Bakelite Compliance System

The Compliance Committee was established as part of the system that internally controls the directors' execution of their duties. The committee aims to promote compliance and is responsible for assessments of compliance levels and, when necessary, related improvements as well as education and training.



### ● Reporting System

In cases where an employee discovers a compliance violation or suspects that there may have been a violation, and it is not appropriate to report the incident to his/her superior, he/she may directly report it to a designated contact point. In addition, employees can access designated external legal counsel to report the incidents.



## ● Initiatives to Protect Personal Information

We recognize that the customer, shareholder, employee, and other personal information in our possession is important and must be protected, and therefore are committed to ensuring that this information will not be leaked to outside sources. The Company's privacy policy is presented below.

### Sumitomo Bakelite's Privacy Policy

Recognizing the importance of protecting personal information, the Company promotes the protection of personal information based on the guidelines below.

1. The Company shall acquire personal information through legal and honest methods.
2. The Company shall disclose the purpose for which personal information will be used before acquiring it and shall use it only for that purpose.
3. The Company shall not provide personal information it has acquired without first obtaining prior consent, except in cases where it is unlawful to withhold the information. However, personal information may be shared with subsidiaries and affiliates or outsourcing companies without obtaining prior consent.
4. The Company shall conduct appropriate management and oversight when outsourcing companies are consigned with the handling of personal information.
5. The Company shall maintain the accuracy of personal information and manage it securely.
6. The Company shall protect personal information stored in electronic databases from loss, destruction, falsification, and leaks by taking the appropriate security measures to guard against illegal access and computer viruses.
7. The Company shall respond to requests to disclose, amend, stop using, or erase personal information within a reasonable amount of time, after confirming that the person making the request is the person whose information is affected.
8. The Company shall, in addition to engaging in employee education and awareness training regarding the handling of personal information, place managers in departments that handle personal information to ensure the proper management and handling of personal information in daily operations.



## Management Policies and Corporate Policies for Safety, Health, and the Environment

The Sumitomo Bakelite Group has set environmental targets based on environmental and safety management policies in line with its basic policy of “society and environment-compatible management.”

### Management Policies

1. Enforce and expand core businesses
2. Enhance customer satisfaction
3. Consolidate management and promote internationalization
4. Establish management that is highly compatible with society and the environment

### Corporate Policies for Safety, Health, and the Environment

#### Philosophy

In all its operations, Sumitomo Bakelite will endeavor to conform with the highest standards dictated by the Responsible Care concept and give due consideration to human health and safety as well as to the protection of the environment.

#### Policies

In accordance with this philosophy, we will

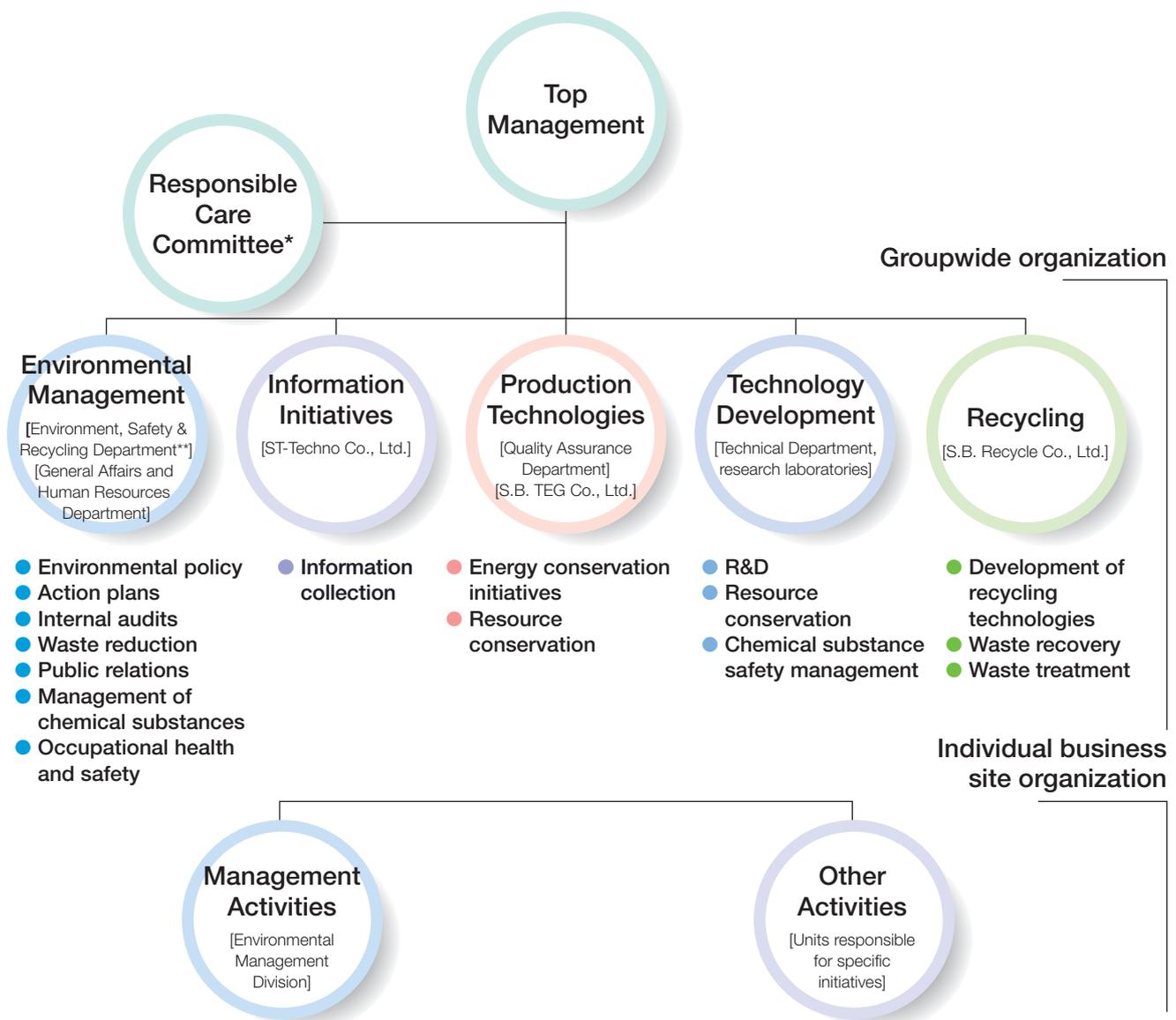
1. Evaluate the safety, health, and environmental aspects of all corporate activities, from product design through product disposal, strive to minimize the environmental impact of corporate activities, and undertake to develop safer products and technologies;
2. Make sustained, Groupwide efforts to promote resource and energy conservation, recycling, and waste reduction;
3. Implement operational safety management programs for our employees and neighbors;
4. Work to improve the safety of products and transportation operations and provide product safety information to customers and others;
5. Comply with all relevant laws, regulations, and agreements associated with safety, health, and the environment while autonomously establishing administrative rules designed to promote safety, health, and environmental protection; and
6. Perform inspections of environmental protection and safety activities as well as work to maintain and improve systems for administering such activities.



# Promotional Organization

## Sumitomo Bakelite's organization to protect the environment and ensure safety and health

Sumitomo Bakelite adheres to Responsible Care guidelines for safeguarding the environment, safety, and health throughout the life cycle of chemical substances, from development to disposal. The Company has established the Responsible Care Committee comprising members of top management. The implementation of Responsible Care is carried out Groupwide, centering on the head office. Individual business sites carry out activities through their Environmental Management Division and other departments responsible for specific initiatives.



\* Responsible Care Committee: Promotes Responsible Care activities, establishing plans for Groupwide Responsible Care activities and considering and granting approval for individual business site activities

\*\* Environment, Safety & Recycling Department: In addition to serving as the office for Responsible Care activities, coordinates the activities of individual business sites as follows:

- Management assistance in promoting safety and environmental maintenance and improvement at individual business sites
- Internal audits of environment- and safety-related Responsible Care efforts at individual business sites (Domestic business sites are audited annually, while overseas business sites are usually audited once every three years.)
- Safe management of chemical substances, compliance with applicable laws and regulations, and related applications
- Feasibility studies and proposals for internal and external recycling activities



## Environmental Targets— Domestic Business Sites

Sumitomo Bakelite has been working Groupwide to reduce its environmental impact since fiscal 2000 with the establishment of medium- and long-term targets based on the Company's Corporate Policies for Safety, Health, and the Environment, using fiscal 1999 as the base year.

### Medium- and Long-Term Environmental Impact Reduction Targets—Domestic Business Sites

**Waste generation: 59% reduction (to be achieved by fiscal 2008)**

**Zero emissions-designated substances: 99.4% reduction (to be achieved by fiscal 2008)**

**Air emissions of solvents and other chemical substances: 94% reduction (to be achieved by fiscal 2008)**

**CO<sub>2</sub> emissions: 14.6% reduction (to be achieved by fiscal 2010)**

Definitions: Waste generation: Industrial and general waste generated

Zero emissions-designated substances: Landfilled and incinerated waste without energy recovery

Air emissions of solvents and other chemical substances: Emissions of solvents and other chemical substances targeted by the Japan Chemical Industry Association (JCIA) Pollutant Release and Transfer Register (PRTR) assessments (including substances targeted for reporting pursuant to the PRTR Law)

CO<sub>2</sub> emissions: CO<sub>2</sub> emissions due to energy (fuel and electricity) use in production activities

The above medium-term targets for waste generation, zero emissions-designated substances, and air emissions of solvents and other chemical substances have been revised in light of fiscal 2005 performance and future prospects.



### Environmental Impact Reduction Performance and Targets—Domestic Business Sites

Action	Unit	1999 (base year) performance	2004 performance	2005 performance	2006 plan	2007 targets	2008 targets
Waste generation	Tons	12,800	10,206* (20% reduction)	9,514 (26% reduction)	7,493 (41% reduction)	6,300 (51% reduction)	5,200 (59% reduction)
Zero emissions-designated substances	Tons	7,053	1,620* (77% reduction)	548 (92% reduction)	100 (98.6% reduction)	60 (99.1% reduction)	40 (99.4% reduction)
Air emissions of solvents and other chemical substances	Tons	3,164	653 (79% reduction)	460 (85% reduction)	353 (89% reduction)	300 (91% reduction)	200 (94% reduction)
CO <sub>2</sub> emissions	Tons	130,769	121,936* (6.8% reduction)	118,308 (9.5% reduction)	118,188 (9.6% reduction)	117,561 (10.1% reduction)	116,907 (10.6% reduction)

Numbers in parentheses ( ) are rates of reduction based on fiscal 1999 levels. \*Performance figures have been revised due to subsequent examination.

Environmental impact figures are compiled from data from the following business sites:

Sumitomo Bakelite Co., Ltd.: Amagasaki Plant (including subsidiaries and consolidated affiliates on the premises), Shizuoka Plant (including subsidiaries and consolidated affiliates on the premises), Industrial Resin & Molding Compounds Plant, Utsunomiya Plant, Tsu Plant, Fundamental Research Laboratory, and Kobe Fundamental Research Laboratory

Akita Sumitomo Bakelite Co., Ltd., Arlite Kogyo Co., Ltd., Sumibe Techno Plastic Co., Ltd., Hokkai Taiyo Plastic Co., Ltd., Yamaroku Kasei Industry Co., Ltd., Kyushu Bakelite Industry Co., Ltd., Suzuka Plant, Decolanitto Co., Ltd. (included from 2004), and Sano Plastic Co., Ltd. (included through June 2002)



## Summary of Environmental Impact Reduction Activities

Each year, Sumitomo Bakelite sets specific targets for reducing its environmental impact, evaluating them on a monthly basis. The chart below shows fiscal 2005 targets and actual performance.

Action	Unit	2004 performance	2005 targets	2005 performance	Comments
Waste generation	Tons	10,206*	7,895	9,514	The amount of waste generated was above the target due to an increase in the manufacturing of products that generate large amounts of waste. In response, we will promote the distillation and recovery of waste with the aim of reducing the amount.
Zero emissions-designated substances	Tons	1,620*	808	548	We met our target, owing mainly to recycling initiatives promoted at the Suzuka Plant of Decolanitto Co., Ltd., and Akita Sumitomo Bakelite Co., Ltd.
Air emissions of solvents and other chemical substances	Tons	653	650	460	We achieved a 190 ton greater than targeted reduction in emissions, thanks to the consolidation of solvent emission facilities and the focused operation of waste gas treatment facilities.
CO <sub>2</sub> emissions	Tons	121,936*	117,838	118,308	Although we narrowly missed our target, we reduced emissions 3%, or around 3,600 tons, from the previous fiscal year by commencing full-fledged operations of cogeneration facilities.

: Above target

: Below target

\*Performance figures have been revised due to subsequent examination.



## Environmental Targets— Overseas Business Sites

In fiscal 2003, Sumitomo Bakelite began collecting data on the environmental impact of overseas production bases with an eye to making reductions. To this end, it has established medium- and long-term environmental targets and is tracking its progress using fiscal 2004 as the base year.

### Medium- and Long-Term Environmental Impact Reduction Targets—Overseas Business Sites

**Waste generation: 20% reduction (to be achieved by 2008)**

**Zero emissions-designated substances: 30% reduction (to be achieved by 2008)**

**CO<sub>2</sub> emissions: 3.0% reduction (to be achieved by 2008)**

We have established three environmental target areas: 1) waste generation, 2) zero-emissions designated substances (landfilled and incinerated waste without energy recovery), and 3) CO<sub>2</sub> emissions.

The above target for waste generation was revised in light of fiscal 2005 performance and future prospects.



### Environmental Impact Reduction Performance and Targets—Overseas Business Sites

Action	Unit	2004 performance	2005 performance	2006 plan	2007 targets	2008 targets
Waste generation	Tons	14,312	14,592 (2.0% increase)	13,369 (6.6% reduction)	12,881 (10% reduction)	11,450 (20% reduction)
Zero emissions-designated substances	Tons	13,023	13,128 (0.8% increase)	11,637 (10.6% reduction)	10,418 (20% reduction)	9,116 (30% reduction)
CO <sub>2</sub> emissions	Tons	127,603	125,292 (1.8% reduction)	125,051 (2.0% reduction)	124,413 (2.5% reduction)	123,775 (3.0% reduction)

Numbers in parentheses are the rates of increase or decrease compared with fiscal 2004 levels.

Environmental impact figures are compiled based on data gathered from the following entities.

Sumitomo Bakelite Singapore Pte. Ltd., Sumicarrier Singapore Pte. Ltd., SumiDurez Singapore Pte. Ltd., SNC Industrial Laminates Sdn. Bhd., BASEC Hong Kong Limited, P.T. Indopherin Jaya, Sumitomo Bakelite (Suzhou) Co., Ltd., SB Flex Philippines, Inc., Sumitomo Bakelite (Taiwan) Co., Ltd., Bakelite Precision Molding (Shanghai) Co., Ltd., Rigidtex Sdn. Bhd., Durez Corporation, N.V. Sumitomo Bakelite Europe S.A., Sumitomo Bakelite Vietnam Co., Ltd., Sumitomo Bakelite Macau Co., Ltd., Fers Resins, S.A.U., and Vyncolit N.V. (included from fiscal 2005)



## Environmental Accounting

### Sumitomo Bakelite has adopted environmental accounting to promote efficient environmental management and fulfill its responsibility to society.

Sumitomo Bakelite implemented environmental accounting in fiscal 2000 to quantify the costs and benefits of environmental conservation and effectively promote environmental management as well as disclose information to stakeholders and give them an understanding of the Company's initiatives. Environmental accounting was introduced at five plants and the Company's two research laboratories in fiscal 2000 and, since fiscal 2001, has been successively implemented at affiliated companies in Japan, figures for which are included in data compilation.

The Company tabulates figures for environmental accounting based on the Ministry of the Environment's *Environmental Accounting Guidelines* (2000, 2002, and 2005 versions).

Furthermore, the Group is working to develop its own accounting standards, with the view that environmental accounting is a means of quantitatively evaluating the progress of activities to reduce environmental impact.

#### Environmental Conservation Costs for Fiscal 2005

Item	Investment (millions of yen)	Expenses (millions of yen)	Description
(A) Emissions control	43	262	• Construction to prevent asbestos release
(B) Energy conservation	21	20	• Installation of energy-efficient lighting equipment • Improvements to air-conditioning systems
(C) Waste reduction, recycling, and treatment	1	626	• Waste treatment
(D) Product initiatives at the R&D stage	—	1,389	• R&D for environment-conscious products
(E) Reduction of upstream and downstream environmental impact	—	26	• Analysis of environmental substances • Commission fees to the Japan Containers and Packaging Recycling Association
(F) Environmental management activities	1	267	• Personnel expenses for environmental management activities • Beautification activities and maintenance of green spaces
(G) Contributions to community activities	—	4	• Outside communications activities
(H) Response to environmental damage	—	—	
Total	66	2,594	

Period: April 2005 to March 2006

Scope of compilation: Sumitomo Bakelite Co., Ltd.: Amagasaki Plant (including subsidiaries and consolidated affiliates on the premises), Shizuoka Plant (including subsidiaries and consolidated affiliates on the premises), Industrial Resin & Molding Compounds Plant, Utsunomiya Plant, Tsu Plant, Fundamental Research Laboratory, and Kobe Fundamental Research Laboratory

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## ● Compilation Methods

- Figures have been tabulated based on the Company's Environmental Accounting Compilation Standards with reference to *Environmental Accounting Guidelines* (2000, 2002, and 2005 versions).
- In cases where composite costs include costs other than those related to environmental conservation, environmental conservation costs have been tabulated based on the proportion used for environmental conservation purposes.
- Economic benefits have been calculated by adding up benefits that can be measured based on a certain premise, and such theoretical benefits as risk aversion are not included.
- Expenses do not include depreciation.
- Research and development investments and expenses are compiled for each environment-related category.

### Benefits of Environmental Conservation for Fiscal 2005

Reduction of environmental impact (compared with previous fiscal year) (tons)		Environmental impact (fiscal 2005) (tons)	
Reduction in amount of air emissions and other substances	193	Amount of air emissions and other substances	460
Reduction in amount of CO <sub>2</sub> emissions	3,628	Amount of CO <sub>2</sub> emissions	118,308
Reduction in amount of waste	692	Amount of waste generation	9,514
Reduction in amount of landfilled and incinerated waste without energy recovery	1,072	Amount of landfilled and incinerated waste without energy recovery	548

Note: Figures for fiscal 2004 have been revised due to subsequent examination.

### Economic Benefits for Fiscal 2005

Classification	Amount (millions of yen)
Cost reductions resulting from energy conservation	224
Cost reductions resulting from waste reductions	42
Income from external recycling	113
Cost reductions resulting from internal recycling	309
Others	5
Total	693

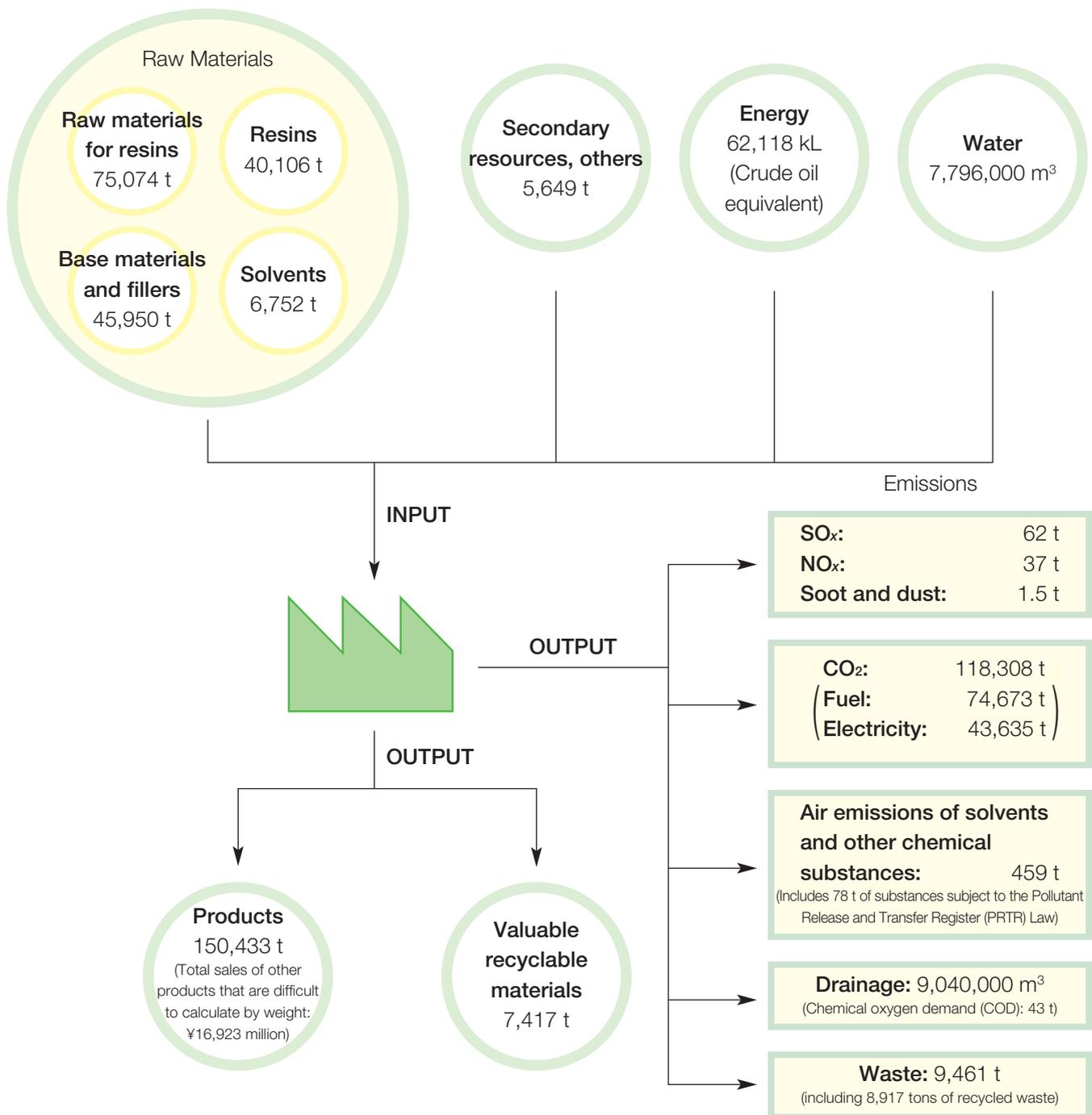
Net sales of environment-conscious products totaled ¥28,782 million, an increase of ¥7,433 million compared with the previous fiscal year, representing 26.9% of net sales, up 6.2 percentage points from the previous fiscal year.



# Environmental Impact Material Balance

The flowchart below illustrates the environmental impact of Sumitomo Bakelite's business activities.

The chart below shows inputs, including raw materials and energy, as well as outputs that are released into the environment. The Group is working to reduce its impact on the environment through waste reduction and resource conservation by promoting cutbacks on the use of raw materials, energy, and water.



Scope of compilation: Sumitomo Bakelite Co., Ltd.: Amagasaki Plant (including subsidiaries and consolidated affiliates on the premises), Shizuoka Plant (including subsidiaries and consolidated affiliates on the premises), Industrial Resin & Molding Compounds Plant, Utsunomiya Plant, and Tsu Plant

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## Environment-Conscious Products

As one of the world's leading plastic manufacturers, Sumitomo Bakelite strives to develop and offer products that do not pollute the environment and do not contain dangerous or harmful substances, do not require customers to use such substances, contribute to the conservation of natural resources and energy, and make it easy to recover and recycle resources.

### ● SUMIKON® EME Epoxy Molding Compound for Semiconductors

Sumitomo Bakelite has developed an epoxy resin molding material for semiconductor sealing that is free of bromine- and antimony-based flame retardants—which have a negative impact on the environment—and can be used in lead-free solder mounting. The Company has developed and marketed the SUMIKON® EME G700 series for applications that require high reliability and the SUMIKON® EME G600 and G500 series for ordinary semiconductor package applications, all of which use a newly developed epoxy resin with superior fire retardant capabilities. We also launched the SUMIKON® EME E series for discrete applications. Centered on material design technology that reduces environmental impact, this “green” family of products can be used for applications ranging from cutting-edge packages to ordinary packages and is enabling the Company to reduce its environmental impact.



### ● SUMIRESIN EXCEL® CRM Semiconductor Die Attach Paste

This product family of highly reliable die attach paste for the high mounting temperatures required for lead-free solder includes the SUMIRESIN EXCEL® CRM 1076 series and 1033 series for lead frame packages, as well as the SUMIRESIN EXCEL® CRM 1500 series for area mounted packages. In addition, the CRM 1300 series is a die attach paste that does not contain mutagenic substances, while the CRM 1290 series boasts superior heat conduction, making it a good substitute solder die attach material.



### ● SUMIRESIN EXCEL® CRC Wafer Coating Material

To respond to narrowing circuit widths required due to the sharp increase in semiconductor memory capacity as well as higher speeds and to satisfy strict demands for reliability, Sumitomo Bakelite has developed and marketed the SUMIRESIN EXCEL® CRC 8000 series of positive photo sensitive wafer coating resins. This enables semiconductor manufacturers to use alkaline water as developing fluid and pure water as a rinsing solution, rendering special solvents unnecessary. In addition, with certain wafer level packages, it can be used in place of conventional plastic-based sealants for rewiring, reducing the length of processing and thus conserving resources and energy.



### ● SUMIRESIN EXCEL® CRP Liquid Epoxy Resin for Semiconductors

SUMIRESIN EXCEL® CRP is an underfill resin for lead-free solder that increases the reliability of flip-chip connections. Underfill resin fills in the area between the base and chip in lead-free soldering—the mechanical strength of which is inferior to conventional solder—to provide adequate protection and hardness, vastly improving connection stability throughout temperature cycles and in other severe environments to enable more fluid work processes.



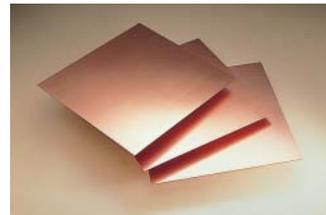
### ● LOC Adhesive Film ITA Semiconductor Adhesive Film/ Semiconductor Adhesive Film IBF

LOC adhesive film ITA and the Semiconductor Adhesive Film IBF3000 series boast higher heat resistance than conventional adhesive films and have been developed and marketed as semiconductor adhesive film products that are compatible with lead-free soldering reflow. In addition, Sumitomo Bakelite has developed the Dicing Die Attach Film IBF8000 series, which enables adhesion at low temperatures and thus process simplification, which, in turn, facilitates resource and energy conservation through the shortening of manufacturing processes.



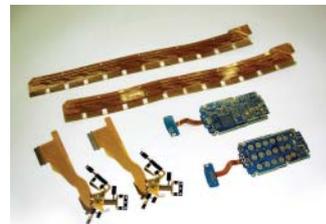
### ● SUMILITE® PLC, ELC, and APL (GS Series) “Green” Laminates

Sumitomo Bakelite’s GS series offers a wide range of grades of environment-conscious halogen- and antimony-free laminates, which are used in electric circuit boards for electronic devices, from paper phenol materials for one-sided boards to materials for semiconductor package substrates. The Company has also developed and marketed glass epoxy multilayer materials with such superior features as tracking resistance and low heat expansibility.



### ● SUMILITE® TFP Flexible PCBs

In addition to epoxy laminates used for flexible copper-clad boards and cover lays, Sumitomo Bakelite has developed and offers flexible printed circuit boards (PCBs) free of halogen and antimony compounds as well as flexible PCBs that use lead-free plating for use in packaging and flexible PCBs that use gold plating for use in connector terminals.



### ● SUMILITERESIN® ECP for Electronic Components

Sumitomo Bakelite epoxy coating powder (ECP) products for electronic components include a lead-free ECP that is compatible with laser marking as well as one that is free of halogen and antimony and incorporates heat resistance and long-term stability. In addition, we have developed and commenced sales of an ECP for motor insulation that improves the coating environment by generating less dust during the coating process as well as an ECP that enables setting at lower temperatures than conventional products to conserve energy. Moreover, we are moving forward with the development of an ECP that does not contain dangerous azo compounds, which generate harmful amine, as part of efforts to reduce environmental impact.



### ● SUMIMAC® ECR Liquid Epoxy Resin for Electric and Electronic Components

Sumitomo Bakelite offers a halogen- and antimony-free liquid ECR for lead-free solder surface mount devices. In addition, the Company has developed and sells an ECR that serves as a secondary mounting underfill material to ensure connection reliability for packages and printed boards while allowing broken packages to be removed from the board, enabling the board to be reused and thus reducing waste generation.



### ● SUMILITE® CSL Semiconductor Cover Tape for Electric and Electronic Components

This cover tape developed and sold by Sumitomo Bakelite protects electric and electronic components from static electricity by adding electrical conductivity to the layer the carrier tape is adhering to. In addition, it is an environment-conscious, halogen-free product.



### ● SUMILITERESIN® PR Industrial Phenolic Resins

Using catalytic and reaction technologies, Sumitomo Bakelite has developed and markets phenolic resins that have less impact on the global environment and work environments and meet the requirements of the PRTR Law, the Industrial Safety and Health Law, and the Poisonous and Deleterious Substances Control Law. Products in the lineup include resins with minimal levels of unreacted monomer and dimer components, dust-free powder resins that do not generate dust, and non-gas resins that do not generate harmful gases during thermosetting.



### ● SUMIKON® PM Phenolic Resin Metal Alternative Molding Compounds

Taking advantage of phenolic resin's superior heat resistance, dimensional characteristics, and mechanical strength, Sumitomo Bakelite supplies molding compounds for automotive and a wide variety of other mechanical components. Such compounds have enabled the plasticization of such metal automobile components as brake pistons and pulleys, thereby contributing to lighter automobiles, lower fuel costs, and reduced CO<sub>2</sub> emissions. The Company also proactively recycles hardened materials through the operation of a material recycling system for molding by-products and the development of the world's first chemical recycling technology that makes use of supercritical fluid technology.



### ● SUMILITE® CEL Co-Extruded Films

By combining a variety of resins to form multilayered films through co-extrusion, Sumitomo Bakelite has developed a thinner film, like a dry laminate, that does not use solvents, consequently reducing packaging material waste loss.



### ● P-Plus® Freshness Maintenance Film

P-Plus® freshness maintenance film is manufactured and sold by Sumitomo Bakelite to preserve the quality of produce during distribution and storage. P-Plus® helps reduce loss due to produce spoilage at each stage of distribution by preserving quality. It also contributes to reducing environmental impact by reducing the number of shipments to stores and facilitating the use of cardboard boxes and containers, which are easier to recycle than polystyrene containers.



### ● SB VAC SLIM® Portable, Sustained Low-Pressure Aspiration Device for Medical Use

Sumitomo Bakelite has developed and markets this portable, sustained low-pressure aspiration device, which facilitates the easy and safe drainage of bodily fluids following surgery. Weighing approximately 40%, or 89g, less and using nearly 63%, or 102g, less packaging materials than our traditional SB VAC®, we have succeeded in reducing product and packaging size and weight, with the creation of the compact, pocket-sized SB VAC SLIM®.



### ● SUMILITE® OBL Polyethylene Shoe Tree Blocks

Sumitomo Bakelite has established a recycling system whereby old shoe trees from customers as well as block cuttings from customer manufacturing processes are recovered and used to make the polyethylene shoe tree block SUMILITE® OBL. In fiscal 2002, the Company was awarded a prize by the Ministry of Economy, Trade and Industry (METI) for reducing, reusing, and recycling in the manufacture of this product.



### ● MYKITCHEN® Polyethylene Chopping Boards

Sumitomo Bakelite has established a resource recycling system for recovering MYKITCHEN® polyethylene chopping boards from customers for use in manufacturing such products as planters and pipe pilings for civil engineering works as well as in its HEALTHY ELEVEN® floor mat products.



### ● SUMIHAT® FAV Organic PVA Fiber Safety Helmets

Sumitomo Bakelite has developed and marketed fiberglass-free FRP safety helmets and established a recycling system that facilitates heat recovery.



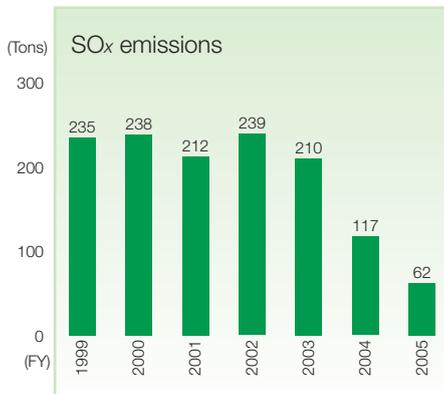


# Reduction of Environmental Impact Substances

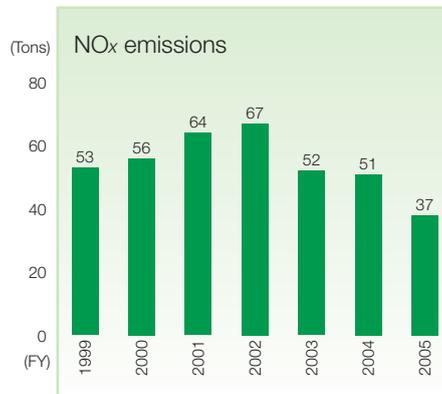
In the course of manufacturing activities, we strive to reduce the amount of environmental impact substances released into the air and water.

## Air Emissions

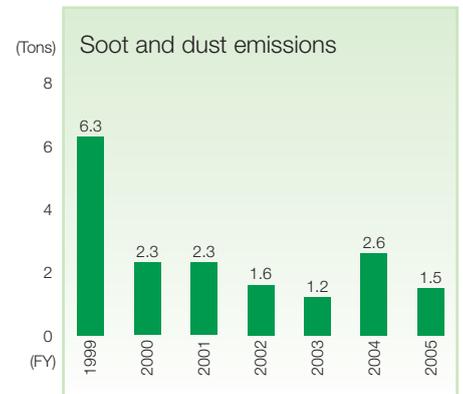
Sumitomo Bakelite strives to adhere to regulation levels based on national emissions standards, ordinances, and agreements made with local communities with regard to SO<sub>x</sub> and other smoke and soot generated by boilers and other manufacturing equipment. In August 2004, we began full operations of a cogeneration system at our Shizuoka Plant, achieving a major reduction in SO<sub>x</sub> emissions due to a fuel switch to natural gas from heavy oil.



Notes: 1. Data are compiled from all domestic business sites listed on page 8.  
2. Figures for fiscal 2004 have been revised due to subsequent examination.



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2. Figures for fiscal 2004 have been revised due to subsequent examination.

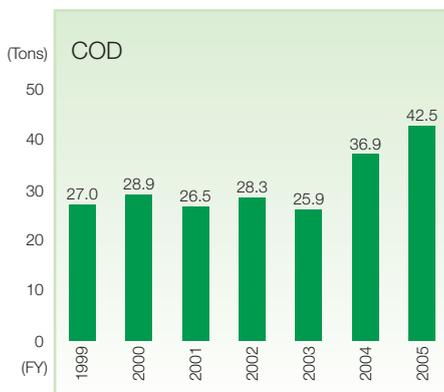


Notes: 1. Data are compiled from all domestic business sites listed on page 8.  
2. Figures for fiscal 2004 have been revised due to subsequent examination.

## Water Discharges

Factory water discharges are broadly classified into wastewater, which includes industrial wastewater and domestic wastewater, and rainwater, which includes coolant water. By recycling coolant water, we are working to curb the use of water resources and reduce our wastewater discharges.

Regarding wastewater, we operate such treatment equipment as high-precision phenol recovery equipment, active sludge treatment equipment, and neutralizing and coagulating sedimentation equipment (metal removal treatment), and have established a regular surveillance system that uses surveillance devices in an effort to comply with national wastewater standards, ordinances, and agreements with local communities. Please note that although COD levels were higher in fiscal 2004 and fiscal 2005 than in previous years due to defective sludge settling in active sludge treatment equipment, this is being remedied through revisions in operating conditions.



Note: Data are compiled from all domestic business sites listed on page 8.

COD: Chemical oxygen demand.

An index of organic matter pollution in water that indicates the amount of oxygen consumed by the oxidizing agent potassium permanganate in the oxidation of organic matter in water.



High-precision phenol recovery equipment (Shizuoka Plant)



Active sludge treatment equipment (Shizuoka Plant)



Water recirculation equipment (Amagasaki Plant)

## ● Reduction of Emissions of Solvents and Others

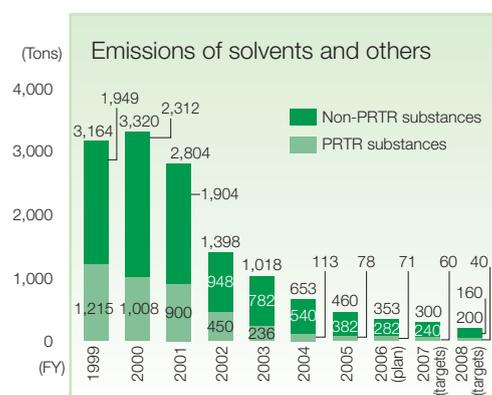
Since 1996, the Company has been involved in JCIA PRTR initiatives, keeping track of the release and transfer of certain substances and setting medium-term and long-term targets for improvement, focusing particularly on reducing its air emissions of solvents. The graph on the right shows the release of solvents and other chemical substances into the air since fiscal 1999.



Exhaust gas treatment facilities

Since fiscal 2002, we have been moving forward with measures to reduce emissions, including the planned installation of exhaust gas treatment facilities and the implementation of steps to reduce the amounts of solvents used. As a result, in fiscal 2005, we reduced emissions by approximately 85% from the fiscal 1999 level. Furthermore, the Company released 78 tons of chemical substances controlled by the PRTR Law (PRTR System\*) into the air, approximately 94% less than in fiscal 1999.

The amounts of the 28 PRTR Law-controlled substances released and transferred by the Company are shown in the chart below.



Note: Data are compiled from all domestic business sites listed on page 8.

## Transfer and Release of Substances Subject to the PRTR Law (fiscal 2005 performance)

(unit: tons)

Government order number	Substance	Amount used (manufactured)	Amount released			Amount transferred	
			Into air	Into water	Into soil	As waste matter	As sewage
1	Zinc compounds (water-soluble)	31	0	0	0	1.1	0
15	Aniline	124	0	0	0	0.2	0
25	Antimony and its compounds	98	0	0	0	5.8	0
29	Bisphenol A	391	0	0	0	0	0
30	Bisphenol A-type epoxy resin (liquid)	918	0	0	0	0.5	0
43	Ethylene glycol	900	0	0	0	29.6	0
44	Ethylene glycol monoethyl ether	18	0	0	0	0	0
45	Ethylene glycol monomethyl ether	211	31	0	0	9.3	0
63	Xylene	40	5	0	0	0.2	0
64	Silver and its water-soluble compounds	15	0	0	0	0	0
67	Cresol	1,556	0	0	0	0.6	0
172	N,N-dimethyl formamide	586	10	0	0	10.4	0
176	Organic tin compounds	13	0	0	0	0.3	0
177	Styrene	9	0.5	0	0	0	0
198	Hexamethylenetetramine	1,155	0	0	0	19.8	0
202	Tetrahydromethylphthalic anhydride	201	0	0	0	0.3	0
207	Copper salts (water soluble, except complex salts)	(55)	0	0.4	0	0	0
227	Toluene	298	28	0	0	2.5	0
232	Nickel compounds	1	0	0	0	0.1	0
242	Nonylphenol	2	0	0	0	0.1	0
243	Barium and its water-soluble compounds	82	0	0	0	0	0
266	Phenol	25,641	2.4	0	0	15.5	0
270	Di-n-butyl phthalate	2	0	0	0	0	0
272	Bis (2-ethylhexyl) phthalate	12	0	0	0	0.3	0
300	1,2,4-benzenetricarboxylic 1,2-anhydride	20	0	0	0	1.6	0
304	Boron and its compounds	14	0	0	0	0.5	0
310	Formaldehyde	11,814	1.2	0	0	8.2	0
		(16,722)	0.1	0	0	0	0
354	Tri-n-butyl phosphate	3	0	0	0	0	0

: Class I designated chemical substances

\* Pollutant Release and Transfer Register (PRTR) System: System whereby businesses that handle various harmful chemical substances designated by the Law Concerning Reporting, etc., of Releases into the Environment of Specific Chemical Substances and Promoting Improvements in Their Management, collect data regarding the release of such substances into the environment, and make voluntary improvements to their management of such chemicals, thereby preventing damages to the environment caused by chemical substances.



# CO<sub>2</sub> Emissions and Energy Conservation

## Sumitomo Bakelite implements energy conservation activities and strives to reduce CO<sub>2</sub> emissions.

Greenhouse gases must be reduced to help solve global warming, a global environmental issue of particular importance. The Sumitomo Bakelite Group has been working to reduce emissions of the greenhouse gas CO<sub>2</sub> through a variety of energy conservation initiatives.

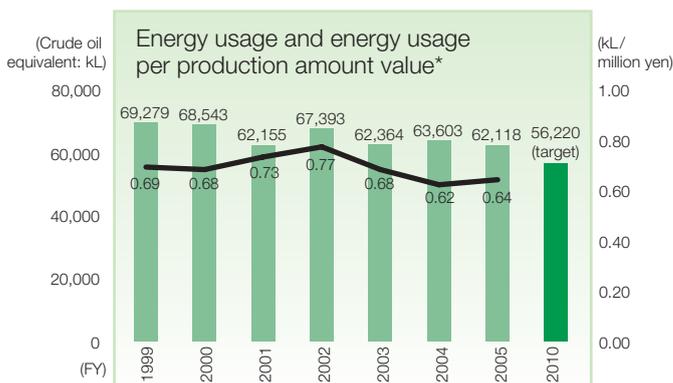
The commencement of full-fledged operations of a cogeneration system installed at the Shizuoka Plant in August 2004 contributed to Groupwide reductions in energy use and CO<sub>2</sub> emissions.

This cogeneration system can reduce CO<sub>2</sub> emissions by enhancing energy conversion efficiency by generating electricity via gas turbine power generation using natural gas for combustion while employing the exhaust heat from this process to create steam. In fiscal 2005, CO<sub>2</sub> emissions amounted to 118,308 tons, reflecting a 9.5% reduction from fiscal 1999 levels.

At present, we are promoting further energy conservation in light of our long-term objective of achieving a 14.6% reduction from fiscal 1999 CO<sub>2</sub> emissions by fiscal 2010.

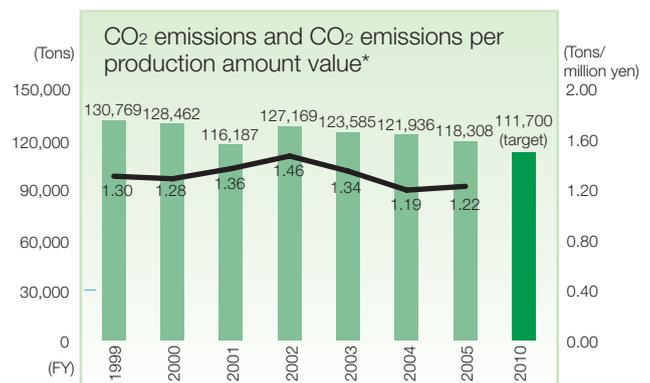


Cogeneration system (Shizuoka Plant)



\*Energy usage per production amount value is determined using the following equation: Energy usage per production amount value = energy usage / (production amount x unit price)

Notes: 1. Data are compiled from all domestic business sites listed on page 8.  
2. Figures for fiscal 2004 have been revised due to subsequent examination.



\* CO<sub>2</sub> emissions per production amount value are determined using the following equation: CO<sub>2</sub> emissions per production amount value = CO<sub>2</sub> emissions / (production amount x unit price)

Notes: 1. Data are compiled from all domestic business sites listed on page 8.  
2. Figures for fiscal 2004 have been revised due to subsequent examination.

### Recent Introduction of Energy Conservation Measures

- The Shizuoka Plant switched from using the conventional auxiliary fuel—heavy oil—to natural gas for its impregnator exhaust gas treatment facilities. This is expected to result in an annual reduction in CO<sub>2</sub> emissions of nearly 900 tons.
- The Amagasaki Plant's project to switch from the use of heavy oil to the use of natural gas for boiler fuel was selected by the Japanese Ministry of the Environment to receive subsidies under a program wherein grants are provided to facilities establishing voluntary greenhouse gas reduction targets. This project is expected to result in an annual reduction in CO<sub>2</sub> emissions of nearly 1,520 tons from fiscal 2007 onward.
- An application for a grant under the aforementioned Japanese Ministry of the Environment program providing subsidies to facilities establishing voluntary greenhouse gas reduction targets was submitted for the building in which Sumitomo Bakelite's head office is located. The application was approved and the implementation of flow control according to air-conditioning load and other efforts are expected to lead to a 303 ton annual reduction in CO<sub>2</sub> emissions from fiscal 2007 onward.

Principal energy conservation measures implemented in fiscal 2005 were as follows:

1. Installation of a steam turbine compressor
2. Installation of inverter controllers for pumps, fans, compressors, and others
3. Application of insulation coating to roofs
4. Application of insulation coating to tanks
5. Installation of an absorption chiller
6. Water-cooling of outdoor air-conditioning units
7. Use of outdoor air for air conditioning
8. Maintenance of air-conditioning equipment
9. Optimization of air-conditioning conditions
10. Maintenance of cooling towers
11. Recovery of steam from steam drains
12. Thermal insulation of steam pipes
13. Installation of energy-saving lighting fixtures
14. Spot repairs of steam and air leaks
15. Optimization of equipment operating conditions



**Installation of a steam turbine compressor**

We reduced electricity use by installing a steam turbine compressor that uses the energy that is released when the high-pressure steam generated in the cogeneration system is reduced to a normal pressure level and ceasing the operation of the existing compressor. (Shizuoka Plant)



**Application of insulation coating to roofs**

We reduced the amount of electricity required for air conditioning by curbing the rise in indoor temperatures through the application of insulation coating to roofs. (Sumitomo Bakelite (Suzhou) Co., Ltd.)



**Installation of an absorption chiller**

We reduced electricity use by introducing an absorption chiller that uses excess steam from the cogeneration system as a source of heat for the production of cold water. (Shizuoka Plant)



**Use of outdoor air for air conditioning**

We curbed electricity use by using outdoor air for low-temperature storage air conditioning during the winter. (Kyushu Bakelite Industry Co., Ltd.)



**Optimization of air-conditioning conditions**

We installed dehumidifiers in rooms with demanding temperature and humidity control requirements, which enabled us to raise the coolant outlet temperature setting by 2°C and thus reduce electricity use. (Sumitomo Bakelite (Taiwan) Co., Ltd.)



**Recovery of steam from steam drains**

By recovering from steam drains steam that formerly was released into the air and using this steam as a water supply for boilers, we reduced fuel use. (Shizuoka Plant)



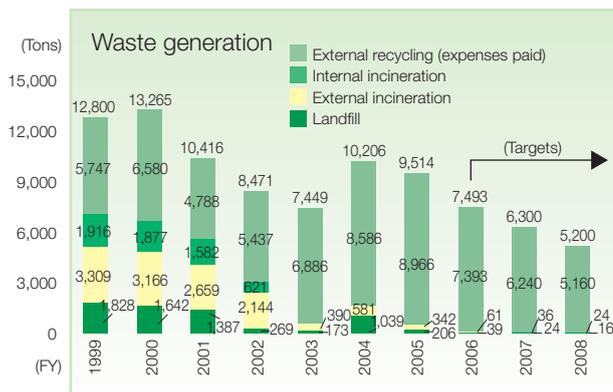
## Waste Disposal

### The Sumitomo Bakelite Group aims to reduce waste generation and achieve zero waste emissions.

In its waste reduction efforts, the Sumitomo Bakelite Group focuses on improving yield in manufacturing processes and controlling waste generation by recycling within those processes. Furthermore, with regard to waste generation, we are aiming to achieve “zero emissions,” recycling all waste and thereby avoiding the use of landfills or simple incineration.

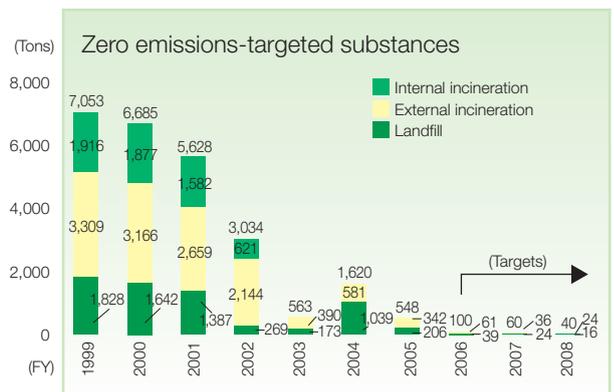
The graphs below entitled “Waste generation” and “Zero emissions-targeted substances” show our progress and targets. Since fiscal 2000, we have steadily reduced waste generation by improving yield, implementing recycling, and converting waste into valuable resources.

In fiscal 2004, total waste generation amounted to 10,206 tons, reflecting a retreat to the levels of fiscal 2001 due to the new addition of data from the Suzuka Plant of Decolanitto Co., Ltd., to the scope of calculations. In fiscal 2005, measures at all business offices to reduce emissions at the source and promote recycling helped us to achieve an approximately 690-ton reduction in waste generation compared with the previous fiscal year. In addition, we reduced zero emissions-targeted substances by approximately 1,070 tons from the previous fiscal year’s level, thanks to waste separation and recycling initiatives undertaken by the Suzuka Plant of Decolanitto Co., Ltd.



Notes: 1. Data are compiled from all domestic business sites listed on page 8.  
2. Figures for fiscal 2004 have been revised due to subsequent examination.

Waste consists of the amount of landfilled waste, externally incinerated waste, internally incinerated waste, and externally recycled waste (expenses paid).



Notes: 1. Data are compiled from all domestic business sites listed on page 8.  
2. Figures for fiscal 2004 have been revised due to subsequent examination.

Zero emissions substances include landfill waste, externally incinerated waste, and internally incinerated waste.

### The number of zero emissions-certified plants in Japan has increased to seven. We are also proud to announce the first certification of an overseas plant.

Following the certification of Yamaroku Kasei Industry Co., Ltd., in fiscal 2002, the Amagasaki Plant and Kyushu Bakelite Industry Co., Ltd., in fiscal 2003, and the Utsunomiya Plant, Tsu Plant, and the Fundamental Research Laboratory in fiscal 2004, the Shizuoka Plant was internally certified as a zero emissions business site in fiscal 2005. As a result, seven, or more than half, of our domestic business sites have achieved zero emissions. In addition, in fiscal 2005, Sumitomo Bakelite (Taiwan) Co., Ltd., became our first overseas business site to achieve zero emissions.

The following section presents the comments of employees in charge of zero emissions initiatives.

## Shizuoka Plant

“Individual awareness pertaining to waste separation is key to zero emission and other waste reduction initiatives. With this in mind, the Shizuoka Plant has been working to meet its environmental targets and objectives. Naturally, activities have been focused on actual locations, where we have been working to firmly establish an awareness of waste separation through such activities as trash can patrols as well as close communication with the waste generating department. Regarding copper clad laminates for glass-based material, melamine resin decorative laminates, and other waste that tends to end up in landfills following separation, our persistent search for a waste disposal firm that can recycle these used products has been a success. At present, as part of our production reform activities, we are making a transition from the previous method of recovering waste on behalf of the site disposing of the waste to a method wherein the employees at each site transport the waste to a collection center. Thereby, we are aiming to increase awareness of the need to reduce waste and maintain zero emissions. Having reached a milestone with the achievement of zero emissions, we will continue to work to reduce waste going forward.”



Shoji Goto, Administration Manager,  
Environment Control Dept.

## Sumitomo Bakelite (Taiwan) Co., Ltd.

“In May 2000, Sumitomo Bakelite (Taiwan) Co., Ltd., started manufacturing and selling epoxy resin molding compound for semiconductor encapsulation.

We initially began working toward zero emissions when we became unable to dispose of waste due to opposition from residents near a waste landfill site. We currently convert waste materials to raw fuel for cement; however, we had to first pass strict investigations conducted by Taiwan’s Ministry of Economic Affairs’ Environmental Bureau and Industrial Development Bureau in order to obtain a license to do this. In addition, we have moved to the internal recycling of waste acetone and are recovering the containers in which our products are sold, including flexible containers, wood pallets, and cans. Going forward, we will make improvements aimed at creating an efficient plant that generates even less waste.”



Hua Man-Chao, Vice President

## ● Elimination of Dioxins

Waste incinerators may generate dioxins, depending on incineration conditions. As the Law Concerning Special Measures against Dioxins and the Waste Disposal and Public Cleaning Law made incinerator regulations more stringent, Sumitomo Bakelite shut down or suspended operations of all of its 12 incinerators subject to the laws by November 30, 2002. Since then, the incinerators have been steadily eliminated, and the final remaining incinerator was removed in February 2006.



# Recycling

## Sumitomo Bakelite promotes recycling for the efficient use of resources.

Regarding recycling initiatives, Sumitomo Bakelite has been recovering and reusing phenols recovered from phenolic resin reaction effluent, pulverizing phenolic resin laminates and melamine resin decorative laminates for use as a filler in phenolic resin molding compounds, and reusing sprue and runner—by-products of molded products—as raw materials.

Other examples of recycling initiatives include:

- Reuse of epoxy resin and phenolic resin molding compound waste as raw material and fuel for cement
- Reuse of waste isopropyl alcohol and acetone via distillation at the Company
- Reuse of recovered crude methanol as supplementary fuel for the Company's boilers
- Recovery of copper from organic and inorganic sludge as well as copper circuit etching waste liquid
- Paper recycling via the repulping of raw material bags and paper waste
- Recovery and reuse of plastic cutting boards and old plastic shoe trees
- Reuse of film and sheet materials as recycled products (trays, mats, planters, etc.)
- Use of excess activated sludge as fertilizer following wastewater treatment
- Composting of shredded paper
- Recovery of copper from melted copper clad laminate discard
- Utilization of refuse paper and plastic fuel
- Separation and recovery of metal and waste plastic from plastic-molding products containing metal parts
- Complete breakdown and liquefaction of raw organic garbage or use as fertilizer
- Pulverization of special melamine resin decorative laminate scraps to enable reuse as a raw material

Established in 1992 to promote waste recycling, S.B. Recycle Co., Ltd., is developing more efficient recycling technologies, conducting research on the reuse of by-products, and establishing waste recovery and treatment systems for plastic waste generated by customers. This company is also engaged in research on the use of microorganisms in phenol and plastic biodegradation. S.B. Recycle aims to employ the microbial treatment of dehydrate derived from phenolic resin reactions and the bioremediation of phenol-contaminated soil.

### Chemical Recycling of Phenolic Resin Products

Historically, the recycling of phenolic resin products has been limited to thermal recycling applications, including reuse as raw fuel. However, we have established a project team that has been working to develop and put into practical use chemical recycling processes that enable reuse as high-value-added chemical raw materials. Thanks to their efforts, the team has succeeded in developing the world's first chemical recycling method for phenolic resin products that employs supercritical fluid technology. In July 2005, this method received recognition for its superiority and innovativeness with its selection as a subsidized project by the New Energy and Industrial Technology Development Organization (NEDO). At present, we are constructing a demonstration plant within the Shizuoka Plant in preparation for the practical application of this technology.



Distillation recovery equipment for waste isopropyl alcohol

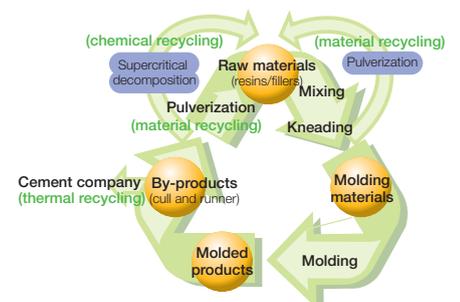


Experiment to search for phenol-degrading bacteria



Experiment focusing on the microbial treatment of plant effluent

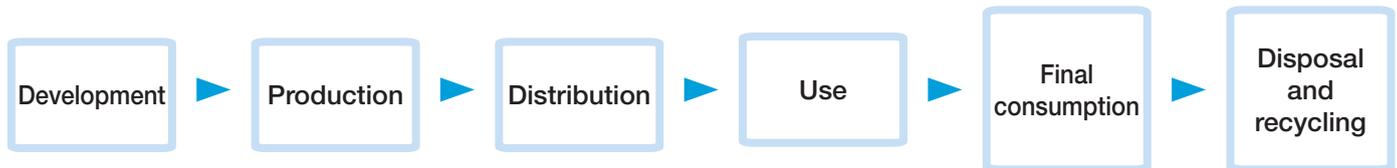
### Recycling System for Phenolic Resin Molding Compound





# Chemical Product Safety

Sumitomo Bakelite takes environmental, safety, and health issues into consideration throughout all stages of the product life cycle—from development through disposal.



## ● Prior Assessment of New Raw Materials

Sumitomo Bakelite evaluates raw materials to be newly used in product development from the standpoint of regulations in Japan and overseas, hazardous property data, and other important factors, and has in place a framework for screening and registering such materials. For use as part of assessment criteria, we have established lists of banned substances and substances for which use is restricted.

## ● Green Procurement

Consideration with regard to the chemicals contained in products throughout all stages of their life cycles, including use and disposal, has become a necessity. In Europe, restrictions on the use of cadmium, mercury, lead, hexavalent chromium, and other specified chemical substances designed to prevent environmental pollution from product waste have come into effect. Response to environmental issues, primarily in the electronics and automotive industries, is on the rise not only in Europe but also in the United States and China. In fact, such measures are gaining ground on an international level. As a “Green Partner” to customers, the Sumitomo Bakelite Group is working with its customers to manage regulated chemical substances and plan the development and provision of products that do not harm the natural environment, even after their disposal.



A Green Partner certificate



A sample MSDS

## ● Material Safety Data Sheets (MSDSs)

An MSDS is a data sheet that provides users of chemical substances and products with information to ensure safe use and handling.

We require that MSDSs be provided for all raw materials procured by the Group and always available at the site where raw materials are handled and conduct MSDS-based safety training for employees. In addition, we issue MSDSs for products as necessary. Furthermore, we periodically revise MSDSs in response to changes in regulations in Japan and overseas.

## ● Yellow Cards

Yellow cards are cards carried by tanker drivers containing contact information and instructions for measures that parties involved should take at the time of an emergency should an accident occur during the transport of chemical substances. The Sumitomo Bakelite Group conducts periodic checks at the time of delivery and shipment of relevant chemical substances to ensure that drivers are carrying yellow cards.



An example of a yellow card



# Audits, Education and Training

## Audits

Every year since 1973, the Company's Environment, Safety & Recycling Department has conducted environment and safety audits of all Company facilities. In 1978, the scope of these audits was expanded to include domestic affiliates.

The scope was further expanded in 1993 to include overseas affiliates in Asia that engage in manufacturing activities.

Based on the principles of Responsible Care, the paper and site audits cover the maintenance and improvement of environmental and safety management as well as compliance with applicable laws and regulations. Each business site periodically conducts an internal audit to promote maintenance and improvements based on environmental management system compliant with ISO 14001.



Environment and safety audits conducted by the Environment, Safety & Recycling Department



### Fiscal 2005 Environment and Safety Audit Results (Scope: 4 plants, 2 research laboratories, and 7 domestic affiliates)

	Number of instances	Correction status (As of August 2006)
Action pointed out	21	Situations corrected
Action advised	40	One situation currently being corrected, other situations corrected
Action demanded	44	Situations corrected

### Fiscal 2005 ISO 14001 Audit Results (Scope of audits includes all domestic business sites listed on page 8)

Audit by approved external organization	Initial audit	Certification registered at one business site
	Maintenance audit	Registration maintained at 10 business sites
Internal audits		Conducted at 11 business sites All situations pointed out have been corrected.

## Environmental Education and Training

Each business site carries out training in a planned and continuous manner, based on annual employee education plans for environmental education according to level of experience for all employees, from new recruits and mid-career employees, to veteran employees. Principal topics include: environmental issues relevant to the company or business site; business site and departmental environmental policies as well as environmental objectives and targets; the handling of hazardous materials, organic solvents, and toxic substances; and the handling of chemical substances based on MSDSs.

In recent years, e-learning has been made available for employees that provides instruction on the handling of hazardous materials and waste management.



Hazardous material handling instruction via e-learning



Environmental education, including participation by business partners (Shizuoka Plant)



Instruction on chemical handling (Fundamental Research Laboratory)



Spill prevention training (Akita Sumitomo Bakelite Co., Ltd.)



## Environmental and Safety Measures in Distribution

### We are working with logistics companies on environmental and safety measures pertaining to shipping operations.

The Sumitomo Bakelite Group is cooperating with logistics companies to reduce the environmental impact of shipping operations through the following measures.

1) Promotion of a modal shift

We are promoting a shift from trucks to railways for the transport of products between Akita and Shizuoka.

2) Promotion of site-based shipping

In transporting items from Amagasaki to the Kanto region, a fully loaded truck will regularly drop off shipments at business sites, which will then deliver items to end users.

3) Measures to improve fuel economy (logistics company initiative)

Using digital tachographs installed on all vehicles, our partners conduct thorough driving management, including the elimination of vehicle idling, appropriate speed management, and the avoidance of sudden acceleration and sudden stops.

In April 2006, the Law Concerning the Rational Use of Energy was revised, calling for businesses consigning freight transport to carriers to implement energy conservation measures as the cargo owner. With the help of carriers, the Sumitomo Bakelite Group is working to ascertain its freight transport volumes using an improved method of ton-kilometer calculation. Using this information on freight transport volumes as fundamental data, we will work to systematically reduce the environmental impact (CO<sub>2</sub> emissions) of these transport operations.

Furthermore, we are advancing the initiatives below to prevent loading and unloading accidents, on-site cargo accidents, and transport accidents.

1) Periodic safety meetings    2) Checks for yellow cards

3) Implementation of safety education through Safe Driving Cards (a logistics company initiative)

## Green Purchasing

### The Sumitomo Bakelite Group practices “Green Purchasing,” where it prioritizes the purchase of products with low environmental impact.

We purchase products and services based not only on their price and quality but on their environment friendliness. This is “green purchasing.”

The Sumitomo Bakelite Group has established its own *Green Purchasing Guidelines*, which are outlined below.

(1) Careful consideration of the necessity of purchasing items

(2) Consideration of various kinds of environmental impact, purchasing that prioritizes the products listed below:

i) Products that reduce the use and output of products that impact the environment or human health

ii) Products that consume fewer resources or less energy

iii) Products whose use does not adversely affect the sustainability of natural resources

iv) Products that can be used over the long term    v) Products that can be reused    vi) Products that can be recycled

vii) Products that use recycled materials or parts    viii) Products for which proper treatment and disposal is simple

In accordance with the Company’s Environmental Accounting Reporting Standards, green purchasing performance is the difference between the prices of conventional products and those of green products appropriated as part of upstream or downstream environmental impact reduction activities.



# Asbestos Handling, CFC Initiatives, PCB Management, and Responses to Environmental Complaints

## Asbestos Handling

In the past, the Sumitomo Bakelite Group used asbestos as a raw material in such products as molding material and decorative laminate; however, we stopped using asbestos in 1994. In addition, we offer periodic medical examinations for employees who previously handled asbestos, and, to date, we have not verified any health problems due to asbestos. In fiscal 2005, we conducted a sweeping investigation of the use of products containing asbestos in plant buildings and facilities. As a result, we commenced countermeasure work, including removal. We are giving priority to areas where there is the potential for asbestos release and plan to complete the removal process by the end of 2006. In addition, we are promoting the systematic replacement of gaskets, seals, and other items containing asbestos with substitutes.



Asbestos removal

## CFC Initiatives

The chlorofluorocarbon (CFC-113) and 1,1,1-trichloroethane have been identified as substances that deplete the ozone layer, and the Sumitomo Bakelite Group ceased using these substances in 1994. Both were used as cleaners and have been replaced by either alcohol-based or hydrocarbon-based alternatives. Although we still use HCFC-22 and CFC-12 as coolants in air-conditioning and other equipment, we are working to steadily phase out these substances in accordance with the Law Concerning the Recovery and Destruction of Fluorocarbons.

## PCB Management

At present, eight Sumitomo Bakelite business sites are using or storing electric machinery (condensers and transformers) that contain PCBs. The stored condensers are strictly managed in special storage units to ensure that PCBs do not leak and are not lost; however, we will make use of the Japan Environmental Safety Corporation's disposal facilities to systematically dispose of this equipment. Furthermore, we ceased using lighting fixtures that use PCB stabilizers at the end of 2004 and are planning to conduct the systematic disposal of condensers and transformers.

### PCB Condensers

Site	Units in use	Units in storage
Amagasaki Plant	0	3
Shizuoka Plant	2 (2)	65 (3)
Utsunomiya Plant	1 (1)	0
Tsu Plant	4	0
Artlite Kogyo Co., Ltd.	3 (3)	0
Hokkai Taiyo Plastic Co., Ltd.	0	2
Yamaroku Kasei Industry Co., Ltd.	0	4
Suzuka Plant, Decolanitto Co., Ltd.	0	2
Total	10 (6)	76 (3)

Note: Figures in parentheses are the number of transformers containing small amounts of PCBs.

### Lighting Fixtures with PCB Stabilizers

Site	Units in use	Units in storage
Fundamental Research Laboratory	0	123
Amagasaki Plant	0	39
Shizuoka Plant	0	313
Tsu Plant	0	131
Artlite Kogyo Co., Ltd.	0	7
Total	0	613

Note: In addition, an 18-liter can containing PCBs is being stored at the Shizuoka Plant.



PCB storage

## Responses to Environmental Complaints

Each Group business site has established rules for responding to environmental complaints to ensure appropriate responses. In fiscal 2005, there were four complaints, all of which are detailed below.

Category	Date	Business site	Complaint	Cause and response
Odor	Apr. 2005	Shizuoka Plant	A local resident reported solvent odor.	A plant representative promptly visited the resident's home to confirm the odor but was not able to detect anything. The representative explained the plant's measures with regard to odor and requested that the resident report any similar odors should they be detected in the future. There have been no complaints since.
Odor	Dec. 2005	Amagasaki Plant	A local resident reported white smoke coming from a boiler and a strange odor.	The problem was caused by incomplete combustion in a backup boiler. We adjusted the air-fuel ratio of the said boiler during operation, revised preheating methods, and standardized other aspects of operations. Thereafter, we confirmed that the backup boiler was operating properly.
Noise	Oct. 2005	Fundamental Research Laboratory	A local resident reported being disturbed by noise caused by acorns hitting the roof.	We trimmed the protruding branch, offered an explanation to the resident, and brought the issue to a close.
Other	Dec. 2005	Shizuoka Plant	A local business reported a disturbance concerning dead leaves and twigs from a Japanese cedar tree flying through the air and falling.	We visited the business to assess the situation and ensured that the tree would be pruned, bringing the issue to a close.



# Soil and Groundwater Contamination Assessments

## Sumitomo Bakelite conducts inspections of soil and groundwater contamination.

The results of past soil and groundwater inspections at each of our business sites are shown in the tables below. Levels of lead exceeding environmental standards were detected in soil on the premises of the Amagasaki Plant and Akita Sumitomo Bakelite Co., Ltd. Going forward, we will take periodic measurements and monitor the levels of lead in soil at these sites.

### <Groundwater>

Business site and inspection month and year	Fundamental Research Laboratory December 1998	Amagasaki Plant June 2006	Shizuoka Plant May 2003	Utsunomiya Plant April 2005	Tsu Plant February 2000	Yamaroku Kasei Industry Co., Ltd. March 2006	Akita Sumitomo Bakelite Co., Ltd. June 2005	The former Sano Plastic Co., Ltd., grounds July 1998
Cadmium			○	○	○	○		
Total cyanide			○	○	○	○	○	
Lead		○	○	○	○	○	○	
Hexavalent chromium			○	○	○	○		
Arsenic			○	○	○	○		
Total mercury			○	○	○	○		
Alkyl mercury				○	○			
PCBs				○	○			
Dichloromethane			○	○	○	○		
Carbon tetrachloride		○	○	○	○	○		
1,2-dichloroethane			○	○	○	○		
1,1-dichloroethylene		○	○	○	○	○		
Cis-1,2-dichloroethylene		○	○	○	○	○	○	
1,1,1-trichloroethane	○	○	○	○	○	○	○	
1,1,2-trichloroethane			○	○	○	○		
Trichloroethylene	○	○	○	○	○	○		○
Tetrachloroethylene	○	○	○	*2	○	○	○	
1,3-dichloropropene			○	○	○	○		
Thiuram			○	○	○	○		
Simazine			○	○	○	○		
Thiobencarb			○	○	○	○		
Benzene			○	○	○	○		
Selenium			○	○	○	○		
Nitrate-nitrogen and nitrite-nitrogen			○					
Fluorine			○	○		○		
Boron			○	○		○		
Organic phosphate compounds				○				
Copper							○	
Phenols			○*1				○	

### <Soil>

Business site and inspection month and year	Fundamental Research Laboratory May 2004	Amagasaki Plant June 2006	Shizuoka Plant February 1999	Utsunomiya Plant April 2005	Tsu Plant February 2000	Yamaroku Kasei Industry Co., Ltd. October 2001	Akita Sumitomo Bakelite Co., Ltd. June 2005
Cadmium		○			○		
Total cyanide				○	○		
Organic phosphorous					○		
Lead		*3			○		*5
Hexavalent chromium		○			○		
Arsenic		○			○		
Total mercury		○		○	○		
Alkyl mercury				○	○		
PCBs					○		
Copper					○*4		
Dichloromethane	○			○	○		
Carbon tetrachloride				○	○		
1,2-dichloroethane	○			○	○		
1,1-dichloroethylene				○	○		
Cis-1,2-dichloroethylene				○	○		
1,1,1-trichloroethane	○			○	○		
1,1,2-trichloroethane				○	○		
Trichloroethylene	○		○	○	○		
Tetrachloroethylene	○			○	○		
1,3-dichloropropene				○	○		
Thiuram					○		
Simazine					○		
Thiobencarb					○		
Benzene				○	○		
Selenium					○		
Fluorine				○			
Boron				○			
Phenols						○	○

Note: For substances for which environmental standards have been established, a circle indicates that levels were below those standards; for those substances for which standards have not yet been established, a circle indicates that levels were below the minimum determination limit.

\*1 November 2004 inspection

\*2 0.03mg/L of tetrachloroethylene (the environmental standard is 0.01mg/L) was detected in a well on the south side of the plant. Thereafter, 0.02mg/L was also detected in a newly drilled well on the north side of the plant (upstream side). As there is no record of past use at the Utsunomiya Plant, we presume that the source of contamination lies outside of the plant site (upstream side). In addition, we have reported this matter to the city of Utsunomiya.

\*3 Samples were collected from four locations within the premises of the plant. Levels of lead in all samples exceeded the environmental standard of 0.01mg/L, with the highest level of lead amounting to 0.073mg/L.

\*4 Extracted in the vicinity of a storehouse for hazardous substances. In February 2000, 230mg/kg of copper (the environmental standard for farmland is 125mg/kg) was detected, but it was concluded that waste oil that contained copper had leaked at the time of disposal. The results of follow-up inspections were as follows: July 2002: 67mg/kg; June 2003: 62mg/kg; July 2004: 20mg/kg; August 2005: 29mg/kg.

\*5 Samples were collected from three locations within the premises of the plant. Levels of lead in all samples exceeded the environmental standard of 0.01mg/L, with the highest level of lead amounting to 0.026 mg/L.



# Site-Specific Environmental Impact Data— Domestic Business Sites

The tables below provide environmental impact data related to air and water quality for each Sumitomo Bakelite business site in Japan.

## Amagasaki Plant

<Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	SO <sub>x</sub>	m <sup>3</sup> N/h	2.93	0.15
	NO <sub>x</sub>	ppm	250	96.2
	Soot and dust	g/m <sup>3</sup> N	0.3	0.03

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.3–8.2
BOD	mg/L	25	9.8
COD	mg/L	25	5.3
Suspended substances	mg/L	20	15.5
n-hexane extract	mg/L	20	0.4

<Water> Released into sewers

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.7–8.7	6.4–8.5
BOD	mg/L	300	190
Suspended substances	mg/L	300	150
n-hexane extract	mg/L	30	17

## Utsunomiya Plant

<Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Drying furnace	SO <sub>x</sub>	m <sup>3</sup> N/h	1.22	0.03
	Soot and dust	g/m <sup>3</sup> N	0.2	0.003

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.5–8.0
BOD	mg/L	25	1.0
COD	mg/L	25	6.8
Suspended substances	mg/L	25	1.6
n-hexane extract	mg/L	5	Less than 1

## Fundamental Research Laboratory

<Air>

No relevant facilities

<Water> Released into sewers

Item	Unit	Regulatory limit	Actual measurement
pH	—	5–9	6.7–8.7
n-hexane extract	mg/L	5	Less than 2
Copper	mg/L	3	0.07
Soluble iron	mg/L	10	0.3
Nickel	mg/L	1	Less than 0.05
Phenols	mg/L	0.5	Less than 0.05
Dichloromethane	mg/L	0.2	Less than 0.02
1,2-Dichloroethane	mg/L	0.04	Less than 0.004

## Shizuoka Plant

<Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Cogeneration boiler	NO <sub>x</sub>	ppm	70.0	12
	Soot and dust	g/m <sup>3</sup> N	0.05	—

\* Soot and dust are measured once every five years.

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	6.8–7.5
BOD	mg/L	15	6.2
COD	mg/L	—	7.5
Suspended substances	mg/L	30	7.4
n-hexane extract	mg/L	3	1.3
Phenols	mg/L	1	Less than 0.2
Formaldehyde	mg/L	5	0.5

## Tsu Plant

<Air>

No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	6.8–8.4
BOD	mg/L	130	54
COD	mg/L	130	99
COD (total)	kg/day	2.1	0.86
Suspended substances	mg/L	130	7
Phenols	mg/L	1	Less than 0.1
Copper	mg/L	1	Less than 0.05
Total chromium	mg/L	2	Less than 0.05
Zinc	mg/L	5	Less than 0.05
Soluble iron	mg/L	10	0.07
Soluble manganese	mg/L	10	Less than 0.05
Total nitrogen	mg/L	60	7.4
Total nitrogen (total amount)	kg/day	2.9	0.57
Total phosphorous	mg/L	8	0.7
Total phosphorous (total amount)	kg/day	0.32	0.07

## Kobe Fundamental Research Laboratory

<Air>

No relevant facilities

<Water> Released into sewers

Item	Unit	Regulatory limit	Actual measurement
pH	—	5–9	7.3–7.7
BOD	mg/L	2,000	8
COD	mg/L	—	4
Suspended substances	mg/L	2,000	3
n-hexane extract	mg/L	5	Less than 1.0
Phenols	mg/L	5	Less than 0.2
Zinc	mg/L	0.7	Less than 0.02
Fluorine and its compounds	mg/L	15	Less than 0.2
Boron and its compounds	mg/L	230	Less than 0.1

### Akita Sumitomo Bakelite Co., Ltd.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	SO <sub>x</sub>	m <sup>3</sup> N/h	3.39	0.39
	NO <sub>x</sub>	ppm	110	92
	Soot and dust	g/m <sup>3</sup> N	0.09	Less than 0.01

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6.0–8.5	7.0–7.2
BOD	mg/L	30	6.7
COD	mg/L	30	8.1
Suspended substances	mg/L	40	6
Phenols	mg/L	0.5	Less than 0.01
Copper	mg/L	1.0	0.61
Cyanide compounds	mg/L	0.1	Less than 0.01
Lead and its compounds	mg/L	0.1	Less than 0.01
Soluble manganese	mg/L	5	Less than 0.03

### Sumibe Techno Plastic Co., Ltd.

#### <Air>

No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.2–8.6
BOD	mg/L	20	8.9
COD	mg/L	—	8.5
Suspended substances	mg/L	50	23

### Suzuka Plant, Decolanitto Co., Ltd.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	SO <sub>x</sub>	m <sup>3</sup> N/h	3.57	0.08
	NO <sub>x</sub>	ppm	150	78
	Soot and dust	g/m <sup>3</sup> N	0.25	Less than 0.005

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	6.9–7.6
BOD	mg/L	130	30.0
COD	mg/L	—	32.0
Suspended substances	mg/L	130	4

### Kyushu Bakelite Industry Co., Ltd.

#### <Air>

No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.2–7.4
BOD	mg/L	30	16.0
COD	mg/L	20	13.0
Suspended substances	mg/L	20	Less than 5
n-hexane extract	mg/L	2	Less than 1

### Artlite Kogyo Co., Ltd.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	SO <sub>x</sub>	m <sup>3</sup> N/h	4.58	0.07
	NO <sub>x</sub>	ppm	180	110
	Soot and dust	g/m <sup>3</sup> N	0.30	0.004

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	6.4–7.4
BOD	mg/L	160	4.2
COD	mg/L	30	4.5
COD (total)	kg/day	27.1	1.4
Suspended substances	mg/L	200	3.1
n-hexane extract	mg/L	5	2.2
Phenols	mg/L	5	Less than 1
Total nitrogen	mg/L	40	14.0
Total phosphorous	mg/L	2	0.22

### Yamaroku Kasei Industry Co., Ltd.

#### <Air>

No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.0–7.3
BOD	mg/L	25	2.1
COD	mg/L	25	3.3
Suspended substances	mg/L	90	2.5
Phenols	mg/L	1	Less than 0.01

- Notes: 1. In cases where there are multiple facilities subject to regulations, we have listed the facility discharging the largest amount of gas emissions.  
 2. Regarding regulatory limits, we have listed the most stringent of municipal ordinances, community agreements, and administrative guidance.  
 3. Actual measurements are the largest values observed in fiscal 2005. Regarding pH, the lowest and highest values are listed.  
 4. Actual measurements listed as "less than" indicate a measurement smaller than the lowest measurable value.



# Site-Specific Environmental Impact Data— Overseas Business Sites

The tables below provide environmental impact data related to air and water quality for each overseas Group business site.

## Sumitomo Bakelite Singapore Pte. Ltd. (Singapore)

### <Air>

No relevant facilities

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	6.6–6.9
BOD	mg/L	400	130
COD	mg/L	600	360
Suspended substances	mg/L	400	58
Phenols	mg/L	0.5	0.38
Temperature	°C	45	27
Chlorine	mg/L	1,000	120
Sulfate	mg/L	1,000	4
Sulfur	mg/L	1	0.05
Cyanide compounds	mg/L	2	Not detectable
Linear alkylate sulphonate	mg/L	30	8
Oil and grease	mg/L	60	7
Arsenic and its compounds	mg/L	5	Less than 1
Barium	mg/L	10	Less than 1
Tin	mg/L	10	Less than 1
Soluble iron	mg/L	50	1
Beryllium	mg/L	5	Less than 1
Boron	mg/L	5	Less than 1
Soluble manganese	mg/L	10	Less than 1
Cadmium	mg/L	1	Less than 0.1
Chromium	mg/L	5	Less than 1
Copper	mg/L	5	Less than 1
Lead	mg/L	5	Less than 1
Mercury	mg/L	0.5	Less than 0.1
Nickel	mg/L	10	Less than 1
Selenium	mg/L	10	Less than 1
Silver	mg/L	5	Less than 1
Zinc	mg/L	10	Less than 1

## P.T. Indopherin Jaya (Indonesia)

### <Air>

No measurement data

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	7–8
BOD	mg/L	100	12
COD	mg/L	300	28
Suspended substances	mg/L	100	5
Total nitrogen	mg/L	30	0.85
Phenols	mg/L	1	Less than 0.0029

## SNC Industrial Laminates Sdn. Bhd. (Malaysia)

### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Exhaust gas combustion unit	SO <sub>x</sub>	g/m <sup>3</sup> N	0.2	0.0029
	NO <sub>x</sub>	g/m <sup>3</sup> N	2.0	0.0740
	Soot and dust	g/m <sup>3</sup> N	0.4	0.0705

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.5–9.0	6.4–7.7
BOD	mg/L	50	45
COD	mg/L	100	95
Suspended substances	mg/L	100	5
Phenols	mg/L	1.0	Less than 0.1
Temperature	°C	40	30
Mercury	mg/L	0.05	Less than 0.02
Cadmium	mg/L	0.02	Less than 0.02
Hexavalent chromium compounds	mg/L	0.05	Less than 0.05
Arsenic	mg/L	0.10	Less than 0.05
Cyanide compounds	mg/L	0.10	Less than 0.05
Lead	mg/L	0.5	0.3
Trivalent chromium compounds	mg/L	1.0	Less than 0.1
Copper	mg/L	1.0	0.3
Soluble manganese	mg/L	1.0	0.2
Nickel	mg/L	1.0	0.3
Tin	mg/L	1.0	Less than 0.1
Zinc	mg/L	1.0	0.4
Boron	mg/L	4.0	Less than 0.2
Soluble iron	mg/L	5.0	2.1
Chlorine	mg/L	2.0	Less than 0.1
Sulfur	mg/L	0.50	Less than 0.4
Oil and grease	mg/L	10.0	Less than 5

## Sumitomo Bakelite (Taiwan) Co., Ltd. (Taiwan)

### <Air>

No relevant facilities

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	7.3–7.8
BOD	mg/L	300	—
COD	mg/L	600	429
Suspended substances	mg/L	300	72

### SB Flex Philippines, Inc. (Philippines)

#### <Air>

No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6.5–9.0	6.8–7.5
BOD	mg/L	500	325
COD	mg/L	800	495
Suspended substances	mg/L	350	24

### Sumitomo Bakelite Vietnam Co., Ltd. (Vietnam)

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	CO	mg/m <sup>3</sup> N	1,500	684
	NO <sub>x</sub>	mg/m <sup>3</sup> N	2,500	37
	SO <sub>x</sub>	mg/m <sup>3</sup> N	1,500	284
	Soot and dust	mg/m <sup>3</sup> N	600	10.3

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.5–9.0	5.7–7.4
BOD	mg/L	50	28
COD	mg/L	100	98
Suspended substances	mg/L	100	67
Copper	mg/L	1.0	0.97
Lead	mg/L	0.5	0.156
Nickel	mg/L	1.0	0.164
Soluble iron	mg/L	5.0	0.296

### Durez Corporation (Kenton Plant) (U.S.A.)

#### <Air>

No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
Phenols	µg/L	20	Less than 10

### Durez Corporation (Niagara Plant) (U.S.A.)

#### <Air>

No relevant facilities

#### <Water> Released into sewers

Item	Unit	Regulatory limit	Actual measurement
Phenols	lbs./day	35	12.8
Drainage volume	million gal/day	0.1	0.082
Suspended substances	lbs./day	75	22.4
Soluble organic carbon	lbs./day	800	740
Phosphorous	lbs./day	17	0.78
pH	—	5–10	5–10

### Durez Canada Co., Ltd. (Fort Erie Plant) (Canada)

#### <Air>

No measurement data

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–10.5	7.9–8.3
Suspended substances	mg/L	350	89
Phenols	mg/L	1.0	Less than 1

### Sumitomo Bakelite Macau Co., Ltd. (China)

#### <Air>

No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6–9	7.3–8.4
BOD	mg/L	40	Less than 3
COD	mg/L	150	—
Total suspended soot and dust	mg/L	60	2
Oil and grease	mg/L	15.0	Less than 10
Phenols	mg/L	0.5	Less than 0.1
Lead	mg/L	1.0	Less than 0.005
Aluminum	mg/L	10.0	Less than 3
Arsenic	mg/L	1.0	Less than 0.002
Cadmium	mg/L	0.2	Less than 0.05
Copper	mg/L	1.0	Less than 0.1
Iron	mg/L	2.0	0.2
Manganese	mg/L	2.0	Less than 0.05
Mercury	mg/L	0.05	Less than 0.001
Zinc	mg/L	5.0	0.06
Nickel	mg/L	2.0	Less than 0.2
Selenium	mg/L	0.5	Less than 0.001
Carbon compounds	mg/L	1.0	Less than 0.1

- Notes: 1. Regarding facilities affecting air quality, in cases where there are multiple facilities subject to regulations, we have listed the facility discharging the largest amount of gas emissions.
2. Regarding regulatory limits, we have listed the most stringent of municipal ordinances, community agreements, and administrative guidance.
3. Actual measurements are the largest values occurring in fiscal 2005. Regarding pH, the lowest and highest values are listed.
4. Actual measurements listed as "less than" indicate a measurement smaller than the lowest measurable value.

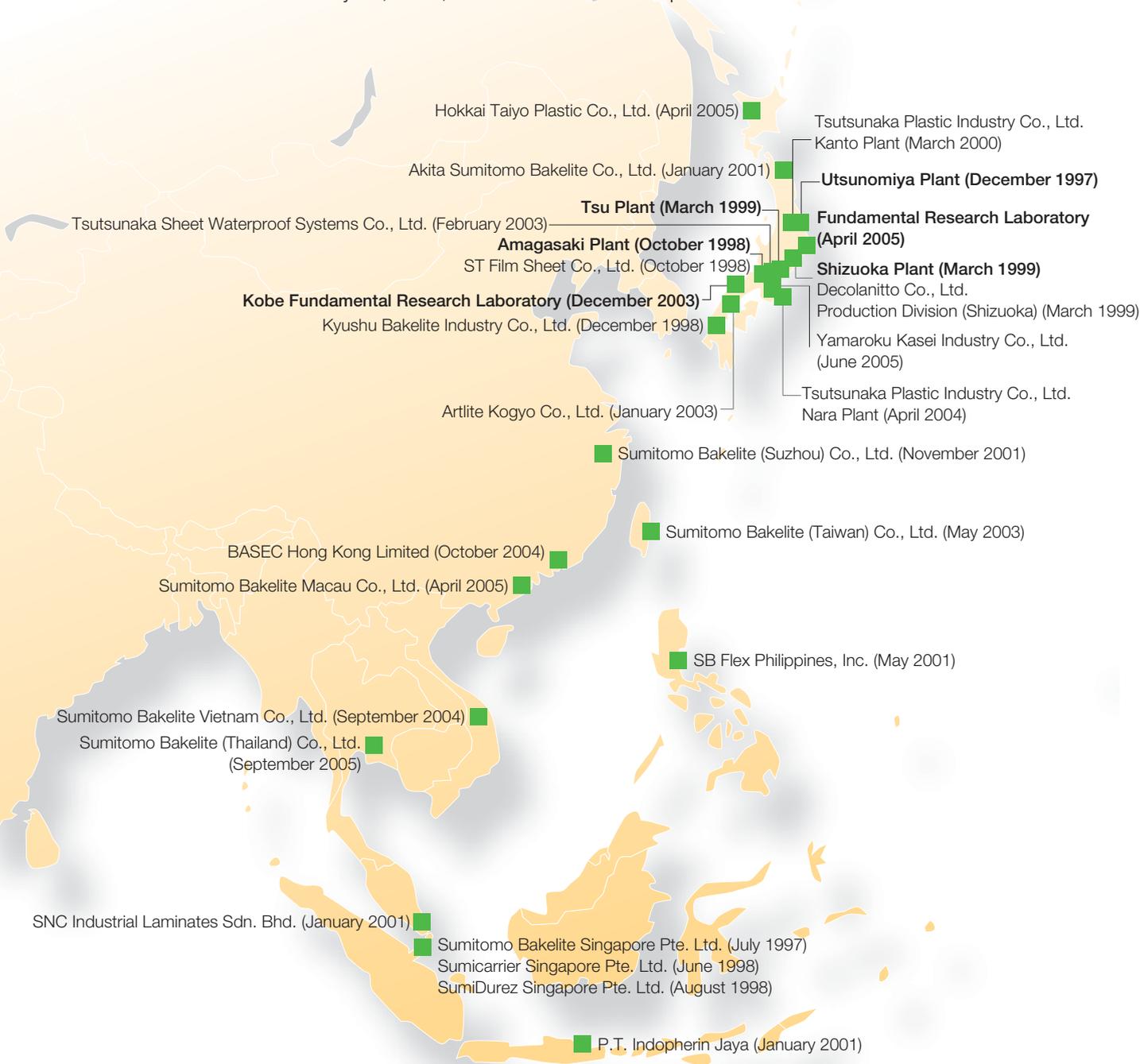


## ISO 14001 Certification

### The Sumitomo Bakelite Group promotes the establishment of environmental management systems compliant with ISO 14001.

As part of its Responsible Care activities, the Sumitomo Bakelite Group has been building environmental management systems based on ISO 14001 and promoting the acquisition of ISO 14001 certification. To date, 16 domestic business sites and 14 overseas business sites have acquired certification. We are working to improve environmental management at sites that have already been certified while promoting the timely acquisition of certification by sites that have yet to do so.

Sites that were certified as of July 31, 2006, are indicated on the map below.



- N.V. Sumitomo Bakelite Europe S.A. (January 2001)
- Fers Resins, S.A.U. (March 2005)

- Notes: 1. Scope of inclusion: Consolidated subsidiaries.  
 2. Bold lettering indicates business sites of Sumitomo Bakelite.  
 3. Date in parentheses ( ) indicates the month and year of acquisition.



# History of Environmental Conservation Activities

## History of the Sumitomo Bakelite Group's Environmental Conservation Activities

Year	Sumitomo Bakelite Initiatives	Societal Developments
1967		• Basic Law for Environmental Pollution Control enacted
1968		• Air Pollution Control Law and Noise Regulation Law enacted
1969	• Pollution countermeasures secretariat established	
1970		• Water Pollution Control Law and Waste Disposal and Public Cleansing Law enacted
1971		• Environment Agency established
1972		• The Club of Rome published <i>The Limits to Growth</i> . • Declaration of the United Nations Conference on the Human Environment adopted at the United Nations Conference on the Human Environment held in Stockholm
1973	• Environmental Management Division established • Environmental auditing of domestic business sites commenced	
1974	• Environmental Management departments established for all business sites	
1978	• Environmental auditing of domestic affiliates commenced	
1979		• Law Concerning the Rational Use of Energy enacted
1985		• The Vienna Convention for the Protection of the Ozone Layer adopted
1987		• Montreal Protocol on Substances that Deplete the Ozone Layer adopted
1989		• Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal adopted
1990	• Environmental Issue Action Committee established • Directors responsible for safety and the environment appointed	
1991	• Recycling Technology Action Office established	• Law Promoting the Use of Recycled Resources enacted
1992	• S.B. Recycle Co., Ltd., established	• U.N. Conference on Environment and Development ("Earth Summit") held
1993	• Environment and Safety Volunteer Plan drafted • Environment and safety management regulations established • Environmental audits of overseas affiliates commenced	• The Basic Environment Law enacted
1994	Use of certain CFCs and 1,1,1-trichloroethane ceased	
1995	• Responsible Care Committee established • The Company joined the Japan Responsible Care Council as a founding member.	• Japan Responsible Care Council (JRCC) established • Law for Promotion of Sorted Collection and Recycling of Containers and Packaging enacted
1996		• International environmental standard certification ISO 14001 went into effect
1997	• "Corporate Policies for Safety, Health and the Environment" revised • Utsunomiya Plant and Sumitomo Bakelite Singapore Pte. Ltd. acquired ISO 14001 certification	• Kyoto Protocol adopted by the Third Conference of the Parties of the United Nations Framework Convention on Climate Change (COP3)
1998	• First <i>Environmental Activities Report</i> issued	
1999	• All Sumitomo Bakelite plants acquired ISO 14001 certification	• Law Concerning Reporting, etc., of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management enacted • Law Concerning Special Measures against Dioxins enacted
2000	• Environmental accounting implemented	• Basic Law for Establishing the Recycling-Based Society enacted
2001	• <i>Environmental Report</i> issued (Independent reviews have been conducted since 2001)	
2002	• Scope of <i>Environmental Report</i> expanded to include domestic affiliates • Tokyo Kakohin Co., Ltd., received an award for promoting a policy of "Reduce, Reuse, and Recycle." • Risk Management Committee established	• Soil Contamination Countermeasures Law enacted • Japan adopted COP3 Kyoto Protocol
2003	• Yamaroku Kasei Industry Co., Ltd., became certified as the Company's first zero waste emissions plant. Subsequently, Kyushu Bakelite Industry Co., Ltd., and the Amagasaki Plant also acquired certification • Compliance Committee established	• Building Code revised to resolve the "sick house" syndrome
2004	• Shizuoka Plant commenced operations of cogeneration system	• Air Pollution Prevention Law revised to reduce VOC emissions
2005	• Sumitomo Bakelite changed the title of its annual <i>Environmental Report</i> to <i>Environmental &amp; Social Report</i> to reflect a broader coverage of social initiatives.	• Kyoto Protocol went into effect
2006	• 30 Sumitomo Bakelite Group domestic and overseas business sites held ISO 14001 certification (as of July 31)	



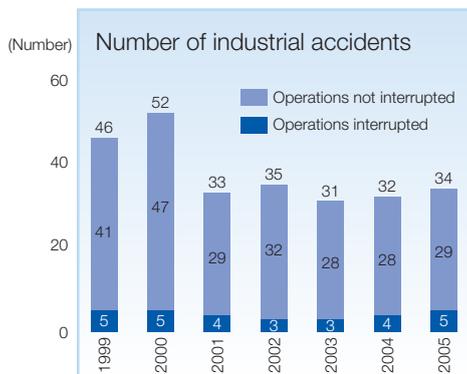
# Occupational Safety and Health

## The Sumitomo Bakelite Group works to achieve a record of zero accidents and zero disasters with the aim of creating a healthy and pleasant workplace.

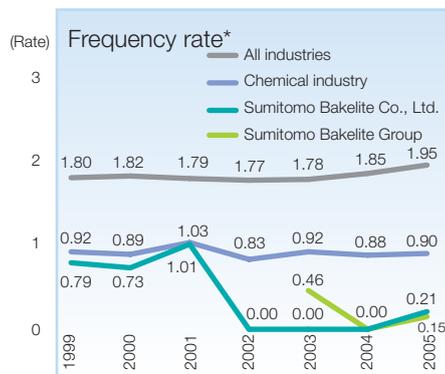
For some time, management and labor at Sumitomo Bakelite have been working together to promote such safety and health initiatives as hazard prediction training, pointing and calling, 5S activities, potential accident prevention, and the creation of a comfortable workplace. In the event of an accident, an emergency meeting of the Safety and Health Committee is immediately called at the site, where the cause and countermeasures taken are examined, after which an accident report is quickly sent out to all Group business sites to prevent the occurrence of similar accidents.

Nevertheless, in July 2006, there was a grave accident at Yamaroku Kasei Industry Co., Ltd., involving a fatality in which an employee fell into a high-speed mixer tank and became caught in the equipment's automatically rotating blades. Acting on the important lesson that this accident has taught us, we have bolstered the intrinsic safety of these mixers by modifying the equipment so that lids will not open during automatic rotation. In addition, we conducted across-the-board inspections of business sites in Japan and overseas that have similar equipment, giving top priority to making improvements at sites where problems with equipment were detected.

Trends in the number of industrial accidents and frequency rates, including data for our affiliates, are presented below.



Notes: 1. Data are compiled from all domestic business sites listed on page 8.  
2. Data are compiled from January through December of each year.



\* The frequency rate refers to the number of deaths and injuries from industrial accidents per one million work hours.  
Frequency rate = (Deaths and injuries/number of worker hours) x 1,000,000

Notes: 1. Data are compiled from January through December of each year.  
2. Frequency rate data for the Sumitomo Bakelite Group are only available for fiscal 2003 and subsequent fiscal years.

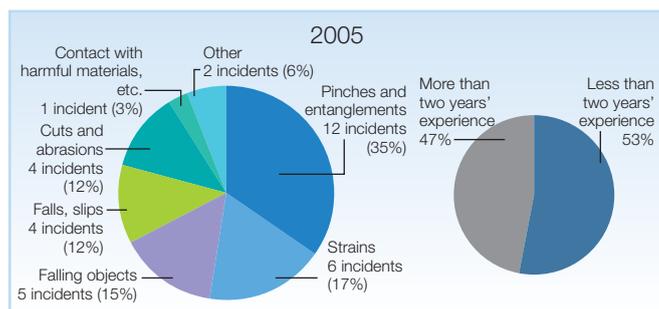


Prayer for safety (Shizuoka Plant)

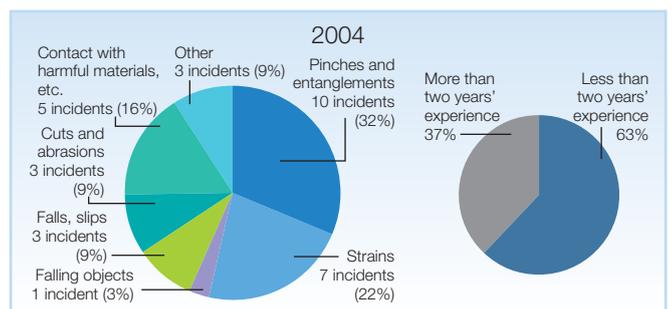
The pie charts below show the number and rates of different types of accidents over the past two years.

"Pinches and entanglements" and "Strains" continued to constitute the highest number of accidents, together accounting for more than 50% of all accidents. Returning to the concept of "intrinsically safe machinery and equipment design," we are moving ahead with unflagging efforts to eliminate such accidents. As for "Contact with harmful materials, etc.," we reduced the number of such accidents from five in 2004 to one in 2005 by revising rules pertaining to the use of protective eyewear. Given that one-half of all accidents involved employees with less than two years' experience, we are working to enhance safety education for inexperienced workers.

### Industrial Accident Analysis and Countermeasures



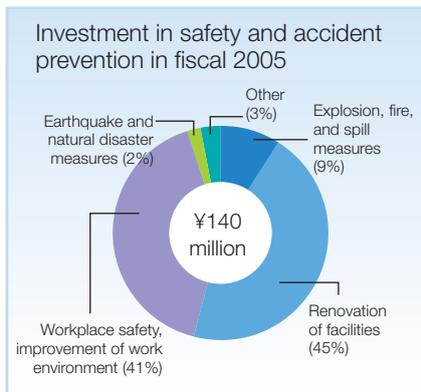
Note: Data are collected for January through December.



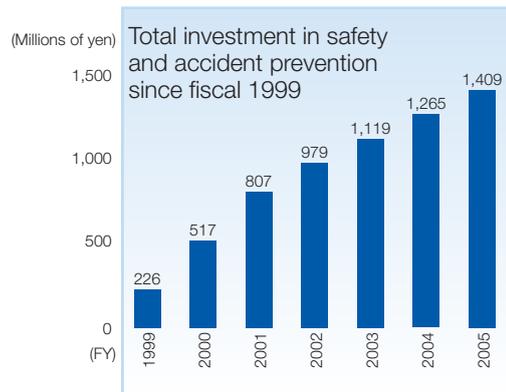
Note: Data are collected for January through December.

## Investment in Safety and Accident Prevention Initiatives

The Sumitomo Bakelite Group continually invests in safety and accident prevention initiatives. In fiscal 2005, the Group invested ¥140 million in activities that were focused on the improvement of aging facilities, workplace safety, and the work environment. Since fiscal 1999, the Sumitomo Bakelite Group has invested a total of ¥1.4 billion in such measures.



Note: Data are compiled from all domestic business sites listed on page 8.



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## Safety and Accident Prevention Activities at Group Business Sites



Workplace noise control measures  
(Shizuoka Plant)



Measures to prevent resin release  
from the reaction vessel (Shizuoka Plant)



Shield to prevent items from getting caught in  
impregnating equipment (Artlite Kogyo Co., Ltd.)

## Group Workplace Safety Initiatives



Flyer promoting 5S activities  
(Sumitomo Bakelite (Taiwan) Co., Ltd.)



Monthly 5S activity patrols  
(Sumitomo Bakelite (Taiwan) Co., Ltd.)



Safety training for mobile and lift equipment  
(Sumitomo Bakelite Singapore Pte. Ltd.)



## Safety and Accident Prevention

### Sumitomo Bakelite promotes safety and accident prevention activities, with the goal of zero accidents and zero disasters.

To ensure the safety of employees and earn trust in local communities, we strive to prevent such accidents as fires, explosions, and spills into the environment while minimizing damage in case of an accident. Each year, every business site of the Sumitomo Bakelite Group prepares an accident prevention plan and conducts equipment inspections as well as accident prevention training and drills. If an accident does occur, all domestic and overseas business sites are notified quickly to prevent similar accidents at other sites. Despite these initiatives, in May 2006, an accidental fire broke out at the Kitsuregawa Plant of Sumibe Techno Plastic Co., Ltd., damaging the approximately 139m<sup>2</sup> workshop/smoking room. The fire was put out by a public fire service. Since this incident is believed to have been caused by improper cigarette butt disposal, we conducted an across-the-board inspection of cigarette butt disposal at all business offices' smoking areas and corrected such problems as a lack of water in ashtrays. In addition, dust explosions during the manufacturing process involving the introduction of raw materials for molding compounds occurred at Durez Canada Co., Ltd. (Fort Erie Plant), in August 2005 and at SumiDurez Singapore Pte. Ltd., in June and July 2006. Engineers from relevant business offices in Japan and overseas rushed to the scenes of these incidents, conducted thorough investigations, and took steps to prevent recurrence.

### Safety and Accident Prevention Activities at Group Business Sites



Evacuation drills (Employees move to the assembly point.) (Amagasaki Plant)



Evacuation drills (Roll call, safety confirmation) (Sumitomo Bakelite (Taiwan) Co., Ltd.)



Hands-on training in fire extinguisher use (Sumitomo Bakelite (Taiwan) Co., Ltd.)



Hands-on training in fire extinguisher use (Sumitomo Bakelite Vietnam Co., Ltd.)



Water discharge exercise (Fundamental Research Laboratory)



Instruction in putting on oxygen masks (Shizuoka Plant)



## Employment and Human Rights/ Human Resources Development

**Sumitomo Bakelite respects each and every one of its employees and aims to create workplaces that are conducive to work.**

### ● Work Support

In light of the declining birthrate and the aging population in Japan, Sumitomo Bakelite is offering employees various kinds of family support programs that make it possible for them to achieve a balance between work and private life, encouraging employees who need to provide child care or nursing care to work with peace of mind.

- Child care or nursing care leave

Employees are able to take child care leave until their child(ren) turn 18 months old. They may also take up to one year of leave for each family member in need of nursing care.

- Work support

Employees who put their child(ren) in day care are able to arrange their working hours earlier or later, or reduce their working hours by up to two hours a day.

- Accumulated vacation days

Up to 30 days of expired, unused paid vacation accumulated over a period extending up to three years prior to the submission of a request may be used as sick leave or for providing nursing care for a family member.

### ● Employment of People with Disabilities

Sumitomo Bakelite considers the employment of people with disabilities to be an important corporate mission and is working to employ such individuals. In the last three years, the employment rates of disabled individuals have been above the legal minimum standard of 1.8%. Looking ahead, we plan to make further efforts to maintain and improve the rate.

#### **Employment Rate of People with Disabilities over the Past Three Years (as of March 31)**

2004	2005	2006
1.87%	1.85%	2.00%

### ● Mental Health Care

In accordance with Ministry of Health, Labour and Welfare guidelines, Sumitomo Bakelite offers employees four main types of mental health care, including self-care, on-site care, in-house care by industrial physicians and public health nurses, and off-site care by specialists. Since mental health issues tend to worsen when they are not addressed, we provide a care system that enables employees to feel free to contact physicians and counselors via telephone or e-mail. In addition, we require employees who work considerable amounts of overtime to meet with an industrial physician.

## ● Respect for Individuals and Their Human Rights

Sumitomo Bakelite endeavors to create a workplace that is pleasant and conducive to work and in which people respect each other and each other's human rights.

### Excerpt from Our Standards of Conduct

1. The Company will provide employees with information relating to business conditions after giving due consideration to its corporate structure.
2. We will actively participate in suggestion plans and small group activities, striving to create a comfortable work environment through workplace improvement activities.
3. We will promote amity in the workplace, and foster trusting relationships among colleagues.
4. We will maintain and improve on the positive labor-management relationship, working together to achieve a comfortable workplace.
5. Both internally and externally, we will not discriminate with regard to factors such as race, nationality, ethnicity, sex, age, religion, philosophy or creed, education, or health condition.
6. We will abide by the *Manual for the Prevention of Sexual Harassment*, and will not condone sexual harassment.

## ● Human Resource Development

Sumitomo Bakelite aims to be a trustworthy global company and, to this end, works to secure and nurture excellent employees. Specifically, with regard to training employees who engage in business activities, we aim to provide guidance and opportunities that take advantage of each employee's strengths and abilities. The Company provides employees with the tools and support they need to engage in the independent and ongoing development of their abilities.

As a means of providing on-the-job training in daily operations, we have implemented a system of work targets. Employees meet with their superiors to establish targets and complete a full management cycle of plan, do, check, action every six months. Superiors hold periodic meetings with employees to set targets, check interim progress, and assess outcomes, using discussion and guidance to steadily raise the business execution capabilities of each employee, with the ultimate aim of further boosting their department's performance. In addition, employees have opportunities to attend various seminars, workshops, and continuing education classes that are relevant to their work.

Regarding off-the-job training, we conduct group training for new recruits and every level of employee from regular employees to management; hold Basic Sales Education and Strengthening Sales Capabilities classes for sales division employees; and hold Quality Management Training, Intellectual Property Training, and Safety Training classes for employees in technology and research divisions. With regard to such issues that are important to the sustainability of business activities as compliance and the protection of personal information, we provide training to all employees through e-learning, which can be done regardless of time or place.

Regarding self-development, when employees complete courses in language training or distance learning, the company they are employed by helps cover a portion of their fees.

To assess the suitability of employees for their current positions as well as place employees in fields that take full advantage of their abilities, we have adopted a self-assessment system. By advancing careers through job rotation, we are working to nurture employees who will be recognized as professionals both within and outside of the Company.

With globalization advancing and international borders fading in the 21st century, Sumitomo Bakelite is working toward sustainable development as a trustworthy global company by vigorously working to develop the capabilities of each and every one of its employees, its most precious resource.

### Structure of Sumitomo Bakelite's Education and Training System

Item		Description	
On the Job Training (OJT)		Work targets (superiors engage in discussions with and provide guidance to employees to improve their capabilities)	
Off the Job Training (OffJT)	Level-based	New hires	On-site practical training (plants)/basic quality management/basic safety/cultivation of ethical thinking
		2nd year education	Cultivation of communication skills/cultivation of career plan development
		3rd year education	Training on work targets (review, target establishment methods)
		Education for new management employees	Leadership training, coaching skill cultivation, work target training (guidance for employees, advanced target development methods)
	Specialty-based	Quality management education	Basic TQM knowledge, seven quality control tools, experimental design, reliability techniques, statistical quality management methods, quality management method acquisition, ISO 9001 education
		Environmental education	MSDS education/handling of hazardous substances, toxic substances, and organic solvent/waste management and treatment education/ISO 14001 education
		Safety education	Disaster case study seminar/fire protection equipment handling/traffic safety/first aid training/accident prevention training/high pressure gas safety
		Intellectual property education	Education and research regarding domestic and overseas laws and regulations, systems, legal precedents, and contracts
		Sales training	Basic sales knowledge acquisition (contracts, product liability law, antitrust laws, credit management), customer service improvement, sales communication skill enhancement, consulting capability enhancement
		Other external training	Participation in seminars and workshops as well as continuing education courses
		General	Compliance education/personal information protection education/information security training
	Mental health education		
	Life plan education		
Self-development	Language training	Attendance at an approved language school/sitting for the TOEIC more than once a year for 10 years of employment (level verified)	
	Distance learning courses	Held twice a year in January and July	



## Product Liability

Sumitomo Bakelite engages in quality management activities on a Companywide level to enhance customer satisfaction by providing its customers with quality products and services that they can use with peace of mind.

### Sumitomo Bakelite's Quality Assurance System

In all processes, from product planning, product design, manufacturing preparations, manufacturing, and sales and service, the divisions involved cooperate in working to maintain and improve quality to provide products that satisfy customers and can be used with peace of mind.

### Quality Management System

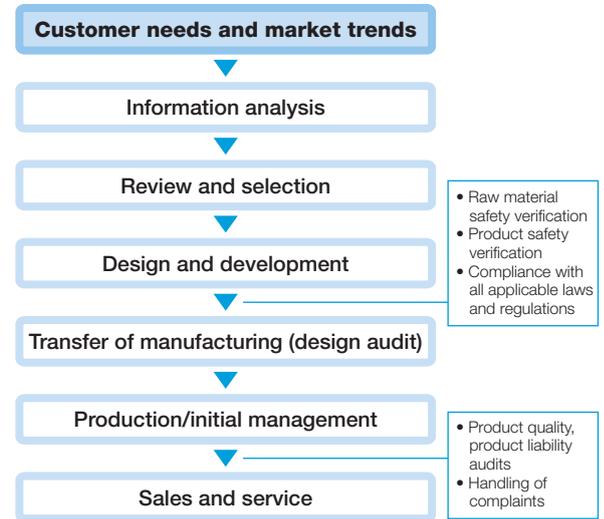
Sumitomo Bakelite and its domestic and overseas business sites develop quality management systems based on ISO 9001 standards and work to acquire certification. We also work toward acquiring ISO 13485 certification for medical devices, which have additional requirements not covered by ISO 9001. As of March 31, 2006, the Company and 28 other Group companies, including 12 domestic business sites and 16 overseas business sites, had acquired certification. ISO 9001 certified business sites are shown on the map below.



### Product Safety Initiatives

To ensure the safety of its products, Sumitomo Bakelite conducts inspections of product designs and the products themselves, as well as risk analyses, offering its customers products that they can use with peace of mind. We also conduct in-house safety and product liability audits and work Companywide to raise awareness about quality management and product safety.

We provide product information using MSDSs, product catalogs, and instructions in an effort to facilitate the proper and safe use of our products.



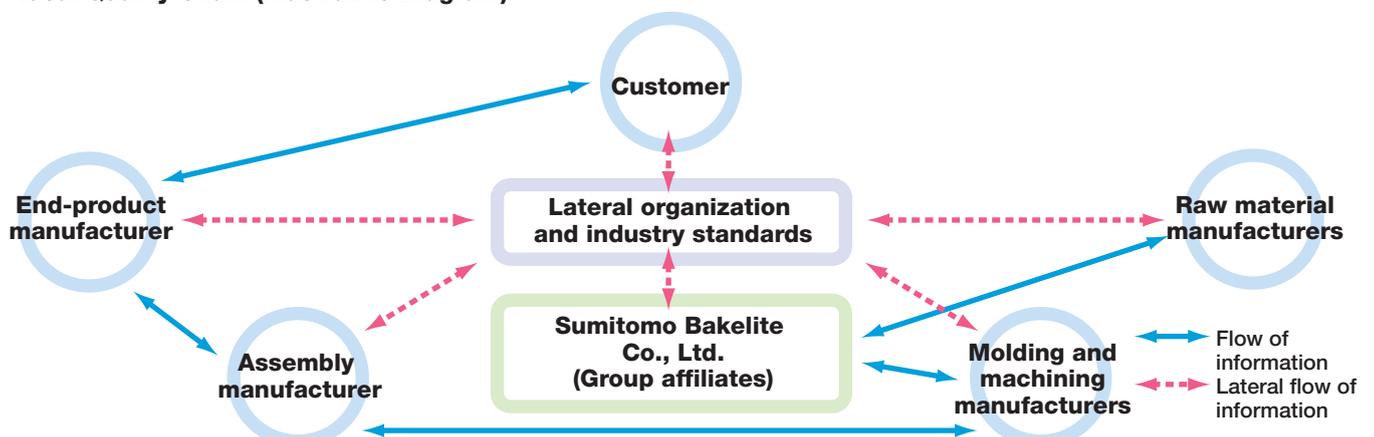
### Quality Chain Establishment

Over the years, all aspects of production systems—from development to manufacturing and sales—have evolved. In recent years, there has been a shift from “vertical integration” systems wherein companies or their affiliates handle everything from component procurement to finished goods to a “horizontal division of work” wherein tasks are divided up among individual companies that specialize in their respective tasks. This trend is said to be especially prominent in the semiconductor industry.

As systems have changed in this manner, it has become difficult to share information vital to manufacturing, including information pertaining to quality, product applications, and use environments, and there is the potential danger that this will lead to a rise in product quality risks. We believe that the establishment of an information chain pertaining to product quality throughout the entire supply chain—from raw material and secondary material retailers to end products—as well as the development of a framework for establishing material standards via a lateral organization or public institutions depending on the product are key to solving this issue.

Not only the Corporate Quality Assurance Department but the entire Sumitomo Bakelite organization, including its development, procurement, manufacturing, and sales departments, is working together to rehaul and strengthen the quality assurance framework to reduce quality risks as part of efforts to provide products and services that deliver customer satisfaction and can be used with peace of mind.

### Ideal Quality Chain (Illustrative Diagram)





# Community Activities

All Sumitomo Bakelite business sites strive to be open with their communities and actively promote exchange with local communities through various kinds of activities.



Shizuoka Plant employees residing in Company housing cleaned up local streets.



Local junior high school students were given a tour of the Amagasaki Plant as part of their environmental education.



On Earth Day, Durez Corporation staff cleaned up roads near their plant.



Durez Corporation employees gave local junior high school students a tour of their plant.



As members of a local environmental preservation council, personnel from the Shizuoka Plant participated in cleanup activities for a river that flows through the city.



Local junior high school students got work experience through internships at the Utsunomiya Plant.



Kyushu Bakelite Industry Co., Ltd., supported the local board of education's survey after a fragment of an earthen vessel from the Yayoi Era was uncovered during the land preparation process for the construction of a new plant building.



Kyushu Bakelite Industry Co., Ltd., strives to maintain the good natural environment of its forestland, which is home to deer, monkeys, raccoon dogs, and other wildlife.



Every year, numerous Amagasaki Plant employees donate blood.

## Social Recognition for Sumitomo Bakelite's Initiatives



Sumitomo Bakelite Vietnam Co., Ltd., received the Hanoi People's Committee's Foreign Corporation Award for its contributions to the city of Hanoi's development.



Staff seconded to the Technology Research Association for Advanced Display Materials (TRADIM), of which Sumitomo Bakelite is a member, received an award for outstanding performance in the division of the Prime Minister's Award "Monozukuri Nippon Grand Award" pertaining to manufacturing that is key to industry and society.



Personnel from Yamaroku Kasei Industry Co., Ltd., received a certificate of appreciation from the Governor of Osaka Prefecture for their efforts to ensure the security of hazardous materials.



# Independent Review Report



## Independent Review Report on “Environmental & Social Report 2006”

To the Board of Directors of Sumitomo Bakelite Co., Ltd.

### 1. Purpose and Scope of our Review

We have reviewed “Environmental & Social Report 2006” (“the Report”) of Sumitomo Bakelite Co., Ltd. (“the Company”) for the year ended March 31, 2006. Our engagement was designed to report to the Company, based on the results of our review, whether the environmental and social performance indicators and the environmental accounting indicators (“the Indicators”) for the period from April 1, 2005 to March 31, 2006 included in the Report are collected, compiled and reported, in all material respects, rationally and in conformance with the Company’s policies and procedures.

The report, including the identification of material issues, is the responsibility of the Company’s management. Our responsibility is to independently report the results of our procedures performed on the Indicators.

### 2. Procedures Performed

We have performed the following review procedures:

- With respect to the Company’s policies for compilation of the Report, interviewed the Company’s responsible personnel.
- Assessed the Company’s procedures used for collecting, compiling and reporting the Indicators.
- With respect to the way of collecting the Indicators and the process flow of calculating them, interviewed the Company’s responsible personnel and reviewed the systems and processes used to generate the values of the Indicators.
- Compared the Indicators on a sample basis with the supporting evidences to test the conformity in collection, compilation and reporting of the Indicators to the Company’s policies and procedures, and recomputed the Indicators.
- Made an on-site inspection of the Company’s domestic facility.
- Evaluated the overall statement in which the Indicators are expressed.

### 3. Results of the Procedures Performed

Based on our review, nothing has come to our attention that causes us to believe that the Indicators in the Report are not collected, compiled and reported, in all material respects, rationally and in conformance with the Company’s policies and procedures.

*KPMG AZSA Sustainability Co., Ltd.*

KPMG AZSA Sustainability Co., Ltd.

Tokyo, Japan  
September 11, 2006



# Corporate Data

- **Name**  
Sumitomo Bakelite Co., Ltd.
- **Capital (as of March 31, 2006)**  
¥28.8 billion
- **Number of Employees (as of March 31, 2006)**  
2,296 (non-consolidated)  
8,819 (consolidated)
- **President**  
Tomitaro Ogawa
- **Number of Shareholders (as of March 31, 2006)**  
16,704
- **Net Sales (fiscal 2005)**  
¥107.2 billion (non-consolidated)  
¥241.1 billion (consolidated)
- **Established**  
January 25, 1932

## ● Major Products by Division

### Semiconductor and display materials

- Epoxy resin molding compounds for semiconductor packaging
- Liquid resin for semiconductors
- Carrier tape for semiconductor surface mounting
- Adhesive tape for semiconductor chips

### Materials for circuitry and electronic components

- Epoxy resin copper clad laminates
- Phenolic resin copper clad laminates
- Flexible printed circuits

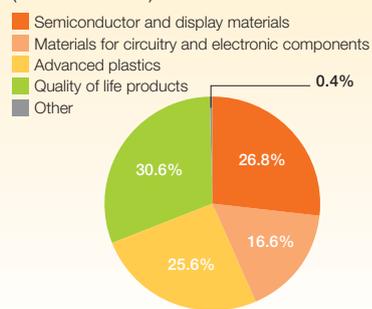
### Advanced plastics

- Phenolic resin molding compounds
- Industrial phenolic resins
- Precision molded products

### Quality of life products

- Medical devices
- Vinyl resin sheets
- Multilayer sheets
- Melamine resin decorative laminates
- Polycarbonate resin boards
- Vinyl resin boards
- Acrylic styrene resin boards
- Water treatment products

Fiscal 2005 net sales by division (consolidated)



(Billions of yen)

Net sales



## Sumitomo Bakelite Co., Ltd.

### ● Head Office

Tennoz Parkside Building, 2-5-8, Higashi-Shinagawa,  
Shinagawa-ku, Tokyo 140-0002  
☎ +81-3-5462-4111

### ● Fundamental Research Laboratory

495 Akiba-cho, Totsuka-ku, Yokohama, Kanagawa 245-0052  
☎ +81-45-811-1661 FAX: +81-45-812-4898

### ● Kobe Fundamental Research Laboratory

1-1-5, Murotani, Nishi-ku, Kobe, Hyogo 651-2241  
☎ +81-78-992-3900 FAX: +81-78-992-3919

### ● Osaka Office

2-3-47, Higashi-Tsukaguchi-cho, Amagasaki, Hyogo 661-8588  
☎ +81-6-6429-6941 FAX: +81-6-6427-8055

### ● Nagoya Office

87 Chouda-cho, Meitou-ku, Nagoya, Aichi 465-0027  
☎ +81-52-726-8351 FAX: +81-52-726-8396

### ● Amagasaki Plant

2-3-47, Higashi-Tsukaguchi-cho, Amagasaki, Hyogo 661-8588  
☎ +81-6-6429-6941 FAX: +81-6-6427-8055

### ● Shizuoka Plant

2100 Takayanagi, Fujieda, Shizuoka 426-0041  
☎ +81-54-635-2420 FAX: +81-54-636-0294

### ● Industrial Resin & Molding Compounds Plant

2100 Takayanagi, Fujieda, Shizuoka 426-0041  
☎ +81-54-635-2420 FAX: +81-54-636-0294

### ● Utsunomiya Plant

20-7, Kiyohara Kogyo Danchi, Utsunomiya, Tochigi 321-3231  
☎ +81-28-667-6211 FAX: +81-28-667-5519

### ● Tsu Plant

5-7-1, Takachaya, Tsu, Mie 514-819  
☎ +81-59-234-2181 FAX: +81-59-234-8728

## Domestic Affiliates

Akita Sumitomo Bakelite Co., Ltd.  
Tsutsunaka Plastic Industry Co., Ltd.  
Tsutsunaka Sheet Waterproof  
Systems Co., Ltd.  
Artlite Kogyo Co., Ltd.  
Sumibe Techno Plastic Co., Ltd.  
Hokkai Taiyo Plastic Co., Ltd.  
Nippon Denkai Co., Ltd.

Otomo Chemical Co., Ltd.  
Yamaroku Kasei Industry Co., Ltd.  
Kyushu Bakelite Industry Co., Ltd.  
Japan Communication Accessories  
Manufacturing Co., Ltd.  
SPD Co., Ltd.  
ST Film Sheet Co., Ltd.  
Sunbake Co., Ltd.

Decolanitto Co., Ltd.  
ST-Techno Co., Ltd.  
Sumibe Service Co., Ltd.  
S.B. Information System Co., Ltd.  
S.B. Recycle Co., Ltd.  
S.B. TEG Co., Ltd.

## Overseas Affiliates

N.V. Sumitomo Bakelite Europe S.A.  
Vyncolit N.V.  
Sumitomo Bakelite Europe (Barcelona) S.L.  
Sumitomo Bakelite (Suzhou) Co., Ltd.  
Bakelite Precision Molding (Shanghai) Co., Ltd.  
Bakelite Trading (Shanghai) Co., Ltd.  
BASEC Hong Kong Limited  
Sumitomo Bakelite Hong Kong Co., Ltd.  
Sumitomo Bakelite Macau Co., Ltd.  
Tsu-Kong Co., Ltd.

Sumitomo Bakelite (Taiwan) Co., Ltd.  
P.T. Pamolite Adhesive Industry  
P.T. CMKS Indonesia  
P.T. Indopherin Jaya  
Rigidtex Sdn. Bhd.  
SNC Industrial Laminates Sdn. Bhd.  
CMKS (Malaysia) Sdn. Bhd.  
SB Flex Philippines, Inc.  
CMK Singapore Pte. Ltd.  
Sumitomo Bakelite Singapore Pte. Ltd.

Sumicarrier Singapore Pte. Ltd.  
SumiDurez Singapore Pte. Ltd.  
Sumitomo Bakelite (Thailand) Co., Ltd.  
Sumitomo Bakelite Vietnam Co., Ltd.  
Sumitomo Plastics America, Inc.  
Durez Corporation  
Promerus, LLC.  
Sumitomo Bakelite North America Holding, Inc.  
Sumitomo Bakelite North America, Inc.  
Durez Canada Co., Ltd.

# SUMITOMO BAKELITE CO., LTD.

Contact: Environment, Safety & Recycling Dept.

Tennoz Parkside Building, 2-5-8, Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002, Japan

TEL: +81-3-5462-3472 FAX: +81-3-5462-4873

URL: <http://www.sumibe.co.jp/english/>

