

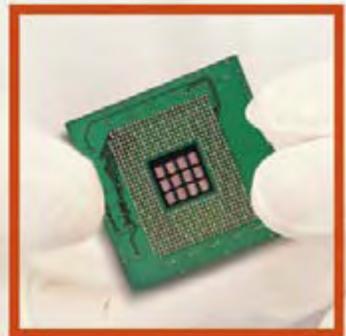
2004

Environmental

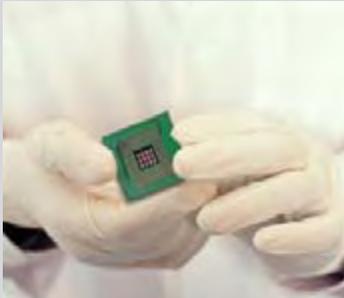
Health and

Safety Report

Marlborough, Massachusetts  
Facility



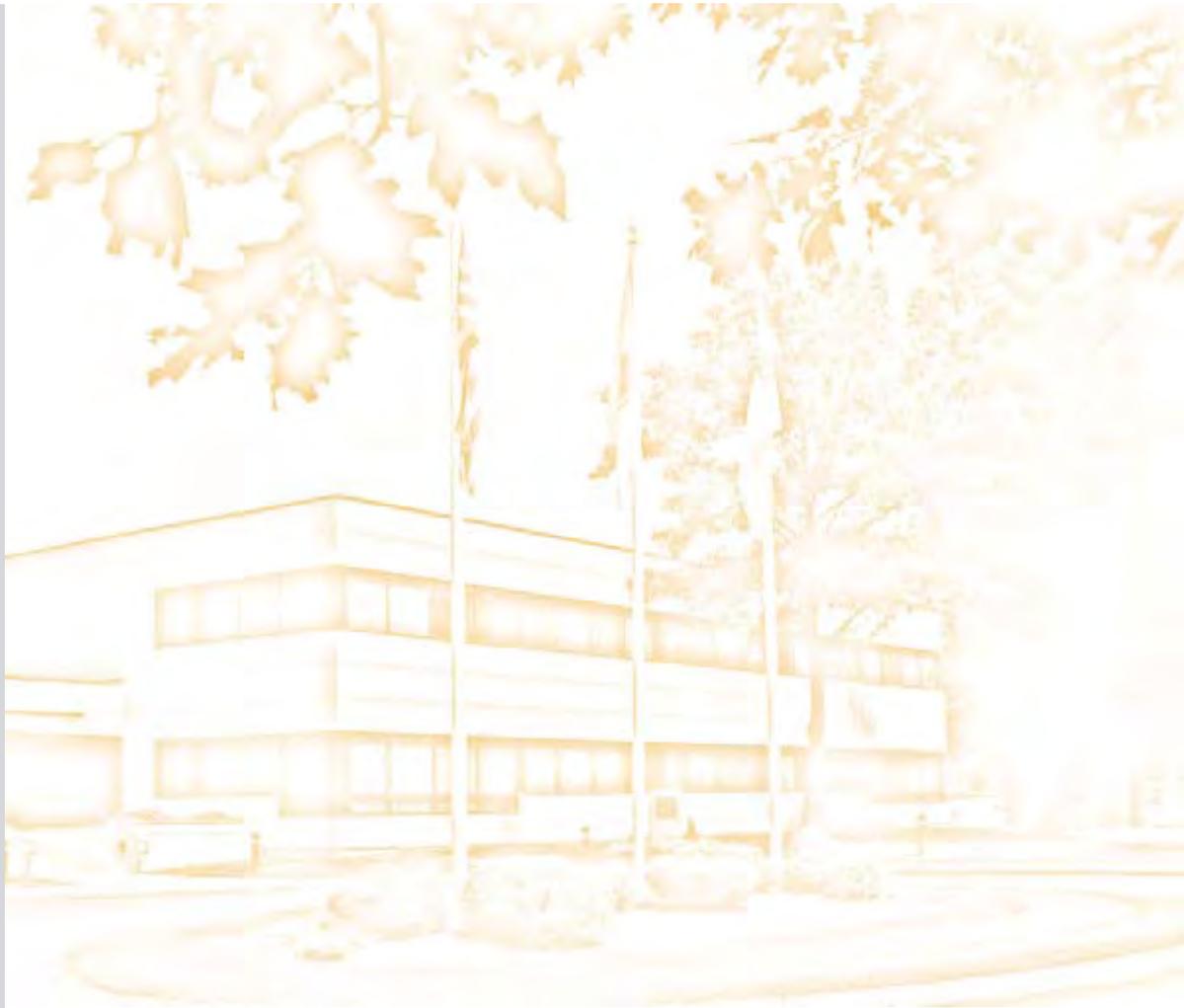
**ELECTRONIC MATERIALS**



the **convergence**  
of materials and innovation

Rohm and Haas Electronic Materials is a world leader in developing innovative material solutions for the electronic and optoelectronic industries. Focused on the circuit board, semiconductor and advanced packaging industries, our products, technologies and solutions are vital elements in creating and producing electronic devices. Everyday, we bring inspiration, science, responsible care for our environment, technology and innovation together for people around the globe. We drive the convergence of materials and innovation.

At Rohm and Haas Electronic Materials we are committed to using the breadth of our portfolio, the talent of our people, and our unparalleled ability to serve customers regardless of geography. We respond quickly to the most demanding challenges, bringing you dynamic technologies and products, exactly when and where you need them.

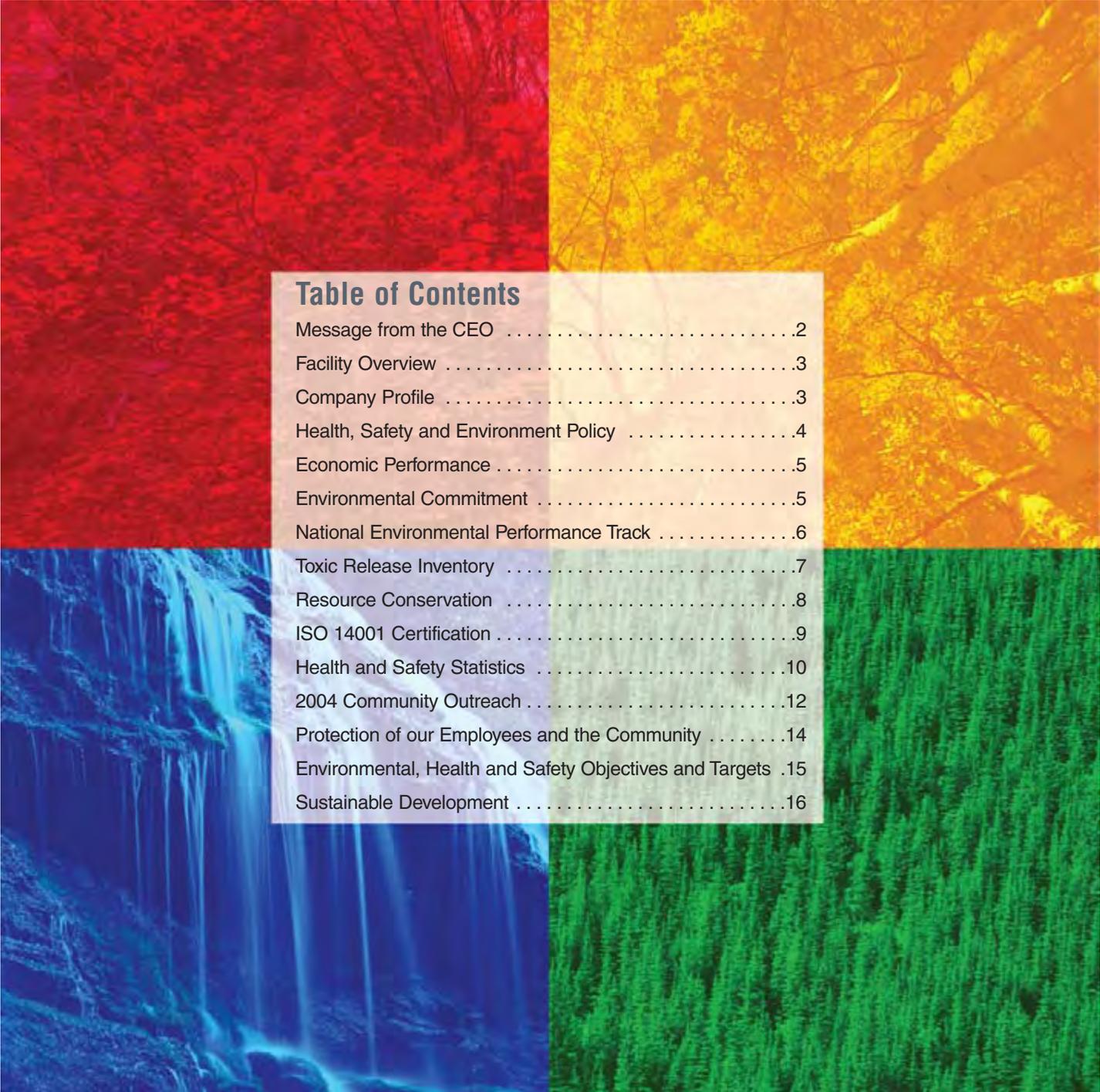


## Environmental Health and Safety Report Objective

To provide our key stakeholders with EHS information regarding Rohm and Haas Electronic Materials' Marlborough facility.

Prepared in 2005, results are achieved against our 2004 EHS objectives and targets.





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# FROM THE CEO

This year's Environmental, Health and Safety Report includes information on Rohm and Haas Electronic Materials' economic, social and environmental performance, the three pillars of sustainable development. While this report focuses on the performance of our Marlborough site, we have also included some measures for our global Rohm and Haas Electronic Materials business.

Some highlights from the past year include:

#### Financial and Business

- All of our businesses contributed to the successful financial performance of Rohm and Haas Electronic Materials by delivering solid results. We are well positioned for future profitable growth. Our overall sales growth and earnings results exceeded 2003 results by 16% and 46%, respectively. This performance compares very well with the rest of the industry.
- We had a very successful start-up of our new Dongguan plant in China. Asia-Pacific regional sales grew by nearly 22%.
- We successfully completed our name change to Rohm and Haas Electronic Materials. This move has brought more unity to our business groups and enhanced our image in the industry.

#### Safety

We remain vigilant in pursuing our goal of zero injuries at all worldwide facilities. The Occupational Injury and Illness (OII) rate for the Marlborough facility was 0.55, our best ever! The overall OII rate for the global Electronic Materials business was 0.78, which is more than four times lower than the 2003 Chemical Industry average rate of 3.4. Protection of our workers and the communities in which we reside will continue to be our highest priority.

#### Environment

We're committed to continuously improve our environmental performance. Our participation in EPA's National Performance Track program is evidence of that commitment. The Marlborough facility continues to demonstrate a history of environmental compliance, and maintains a well-established and certified environmental management system.

#### Responsible Care®

In the coming months, we will expand and strengthen our management system by incorporating health, safety, and security programs into a Responsible Care® 14001 management system. Implementing a comprehensive environmental, health, safety and security management system demonstrates our ongoing support of the Responsible Care® Guiding Principles. It also positions us nicely for continued sustainable growth.

Sincerely,

Pierre Brondeau  
President and CEO, Rohm and Haas Electronic Materials LLC



## Facility Overview

The Marlborough facility is Rohm and Haas Electronic Materials' largest manufacturing site worldwide and corporate headquarters for the Rohm and Haas Electronic Materials business. Our 110-acre site operates 24 hours a day, seven days per week, and is the workplace of approximately 700 employees. The facility manufactures products for Circuit Board Technologies, Microelectronic Technologies and Packaging and Finishing Technologies. The Marlborough site also has the largest Research and Development staff for the company. Other operations at the Marlborough site include raw material and finished-product warehousing, applications laboratories, clean rooms, a pilot plant, an ultra-high-purity manufacturing facility (UHP), and an Advanced Technology Center (ATC).



## Company Profile :: Rohm and Haas Electronic Materials

***The convergence of materials and innovation*** Rohm and Haas Electronic Materials is a world leader in developing innovative material solutions for the electronics and optoelectronics industries. Our products, technologies and solutions are vital elements in creating and producing smaller, faster, more powerful electronic devices, such as cell phones, digital cameras, and laptops.

To meet the exacting product roadmaps of our customers, we are fully-staffed with local sales support, manufacturing facilities, and technology centers. This means we can respond quickly to our customers' needs through our four independent business units:

- **Circuit Board Technologies** ::: creating solutions for an evolving electronic world by providing materials and fabrication services for the global circuit board market, including metallization, imaging, embedded passives and optoelectronics.
- **Microelectronic Technologies** ::: using the science of materials, the power of collaboration with partners, customers and colleagues to harness advances in lithography and, in turn, improve the speed and power of semiconductor devices. Our products include 248 nm and 193 nm photoresists, anti-reflectant coatings and aqueous-based developers.
- **CMP Technologies** ::: creating the flawless surfaces required to make faster and more powerful semiconductor chips with our polishing pads, slurries, reactive chemical solutions, conditioners and other leading-edge products.
- **Packaging and Finishing Technologies** ::: linking innovation to performance by delivering integrated materials and surface finishing processes in electronics, optoelectronics and industrial applications. Reliable interconnects for electronic packaging, EMI shielding and corrosion resistance are just a few examples.

# HEALTH, SAFETY AND

**Policy Statement** We are committed to making our worldwide operations and products free from significant risks to the health and safety of our employees, customers, contractors, the general public, and to the environment.

# ENVIRONMENT POLICY

**Management Commitment** We commit to provide safe and secure workplaces and to protect employee health and the environment. This commitment is communicated to employees and the community. Rohm and Haas Electronic Materials management commits resources in order to:

- Comply with all applicable health, safety and environmental regulations, as well as all internal policies, procedures and with other requirements to which we subscribe.
- Manage our business in accordance with the Responsible Care® Guiding Principles.
- Pursue continual improvement in our Environmental Health and Safety (EHS) programs.
- Pursue pollution prevention programs that make sound economic and environmental sense.

**Measurement** We maintain systems to measure and evaluate safety, health, and environmental performance and to identify areas for continuous improvement in all of these areas. We annually set objectives and targets that support our business and operational strategies and demonstrate continual EHS improvement. We conduct audits to assist management in assessing compliance with the safety, health, and environmental regulations, policies and procedures applicable to the company's operations and products.

**Employee Participation and Accountability** We provide opportunities for employees to participate in the process of improving the safety, health, and environmental performance of company operations.

Each employee is responsible for maintaining a safe and healthful workplace and for protecting the environment in accordance with his or her job duties. Each employee is held accountable for adherence to all applicable procedures.

**Training and Awareness** Employees are provided with the information and training needed to protect themselves, their co-workers, and the environment from potential hazards associated with company operations.

All other stakeholders, such as contractors, suppliers, customers, etc., are provided training when necessary.

**Management of Change** New or changed processes, products, and their intended applications are reviewed for safety, health, and environmental risks prior to introduction or implementation.

**Operating Hazards** We assess the hazards associated with our operations and identify potential risks by analyzing hazards. We modify operations to reduce significant risks, taking into account technical and economic factors.

**Employee Health** We provide programs to assist employees in maintaining good health.

**Stakeholder Involvement** We will be responsive to the concerns of our stakeholders and share information on the potential hazards of our operations.

**Pollution Prevention and Sustainable Development** We will strive to prevent or reduce pollution from emissions, discharges, and wastes and will promote resource conservation throughout the life cycle of our products. We will incorporate sustainability considerations into our business processes.

**Product Safety and Stewardship** We assess, manage and provide information on the potential health, safety and environmental impact of our products, and take steps to continuously improve and protect the environment and stakeholders (e.g., employees, customers). We make Responsible Care®, health, safety, and environmental protection an integral part of our product lifecycle management.

**All Rohm and Haas Electronic Materials employees and contractors are responsible for being aware of the policy statement and incorporating it into the conduct of their jobs.**

# Economic Performance

## Global Results

A key part of being a sustainable company is delivering strong economic performance and creating shareholder value. We can proudly state that all of the Rohm and Haas Electronic Materials businesses contributed to the company's successful financial performance by delivering solid results in 2004. Rohm and Haas Electronic Materials' profitability also increased by more than 40 percent. This performance compares very well with the rest of the industry and will put us in a strong position for future profitable growth.

### Rohm and Haas Electronic Materials 2004 versus 2003 (\$ Millions)

	2004	2003	% Change
<b>Net Sales</b>			
Circuit Board Technology	297	270	10%
Packaging and Finishing Technologies	239	195	23%
Semiconductor Technologies	714	614	16%
Total Net Sales	1,250	1,079	16%
Net Earnings	142	97	46%

# Environmental Commitment

Our commitment is to reduce waste and produce the highest quality products without adversely impacting the quality of air, water, or land in our community. When waste cannot be reduced at the point of generation, reuse and recycling of materials will be explored and implemented wherever feasible. We are committed to:

- Meeting or exceeding compliance with all applicable environmental regulations.
- Pursuing waste-reduction programs that can reduce our present and future environmental liabilities.
- Implementing cost-effective solutions that make sound economic and environmental sense.
- Maintaining an Environmental Management System (EMS) compliant with the ISO 14001 standard.
- Managing our business in accordance with Responsible Care® Guiding Principles and the Codes of Management Practice.

# National Environmental Performance Track



The EPA Performance Track program is designed to recognize and encourage facilities

that have a sustained record of compliance, employ environmental management systems (EMS), and are committed to continue improvements in environmental performance. This voluntary program defines what it means to be a top environmental performer and provides incentives to motivate further improvements. To participate in the program, a facility must demonstrate past environmental achievement and commit to four environmental improvements over a three-year time period. The companies in the program must also complete an annual report that outlines their progress on achieving their established environmental targets.

Rohm and Haas Electronic Materials' Marlborough facility was part of the first group of companies selected by the EPA to participate in the Performance Track program in late 2000. We renewed our membership for another three years in the program and also agreed to participate in the EPA's Region 1 Energy Challenge. The following table outlines our 2004 progress on achieving our three year target value:

Commitment	Base Year	Target Value by 2006	2004 Results	Normalized Results*
Reduce Greenhouse Gases (MTCO <sub>2</sub> E)	19,510	18,530	19,725	17,770
Reduce Hazardous Materials Usage Acetone (tons)	60	54	44	40
Reduce Hazardous Materials Usage Cleaning Solvents (tons)	212	206	193	179

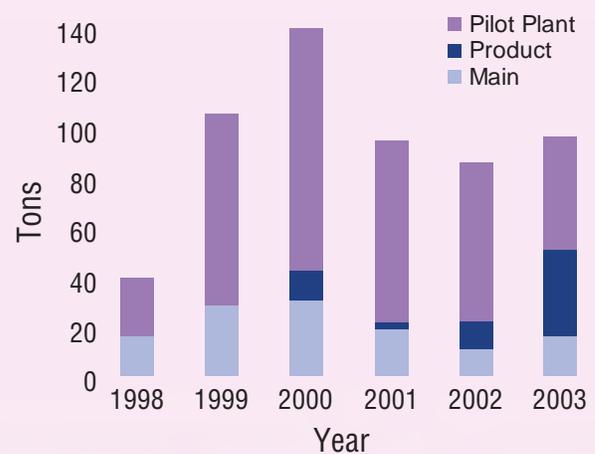
\*Results are normalized based on production data to more accurately reflect data reported. More details on EPA's Performance Track program can be found at [www.epa.gov/performance-track/](http://www.epa.gov/performance-track/).

# Toxic Release Inventory

The Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 requires EPA and the state agencies to annually collect data on releases and transfers of certain toxic chemicals from industrial facilities and make the data available to the public in the Toxics Release Inventory (TRI). Every July, the Marlborough site reports on our environmental releases to all media for regulated substances in the previous calendar year. Our 2003 federal reportable releases to air, water and off-site treatment facilities were 95 tons, an increase of 11% from 2002. The increase was due to over-aged and obsolete products that were shipped off-site for disposal. Disposal of product was primarily attributed to customers closing facilities in North America and product obsolescence. We have taken the following actions to minimize the amount of product going to waste: significantly reduced inventory levels, implemented improvements in our forecasting system, worked with customers on stock agreements and consolidated warehouse locations. We're counting on these initiatives to drive the product waste numbers to a much lower level in the coming years.

Releases to the air, land and water from this site remain less than 5 tons per year. The remaining releases were substances that were shipped off-site to be recycled, recovered for energy or treated by other methods, such as incineration.

TRI Releases  
1998-2003

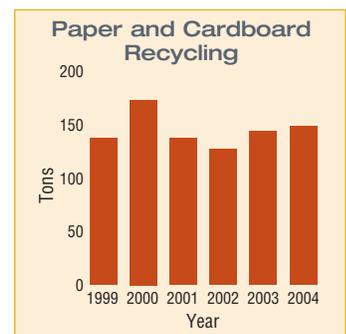
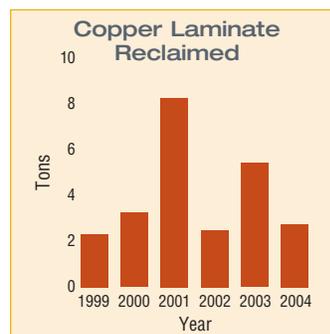
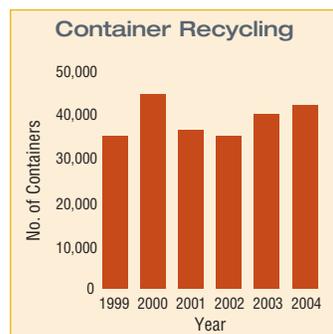


# Resource Conservation

Businesses are responsible for more than 4.5 million of the 8 million tons of waste generated in the Commonwealth each year. Reducing commercial waste is a major priority for our state as well as for the Rohm and Haas Electronic Materials business. The Marlborough site continues to do its part by recycling many waste materials. Recycling makes good environmental and economic sense for our business and for the state.

The recycling totals for calendar year 2004 are as follows:

- 2.7 tons of copper laminate
- 0.77 tons of fluorescent bulbs
- 12 tons of paper
- 42,000 steel and plastic containers
- 130 tons of cardboard
- 730,000 lbs. of solvent\*



Recycling these waste streams means less waste going to combustion facilities and landfills, as well as reduced environmental liability for Rohm and Haas Electronic Materials.

\* We continued to grow our "Waste-to-Product" program in 2004 for two spent solvent waste streams. Because the quality of our spent solvents exceeds many quality specifications for virgin materials, external companies are able to use our spent cleaning solvents as a raw materials for their products. One "product" has an end use as a roofing material and the another solvent is used in a solvent wash blend. The quantity of spent solvent recycled as a product increased by 11% in 2004 versus 2003.

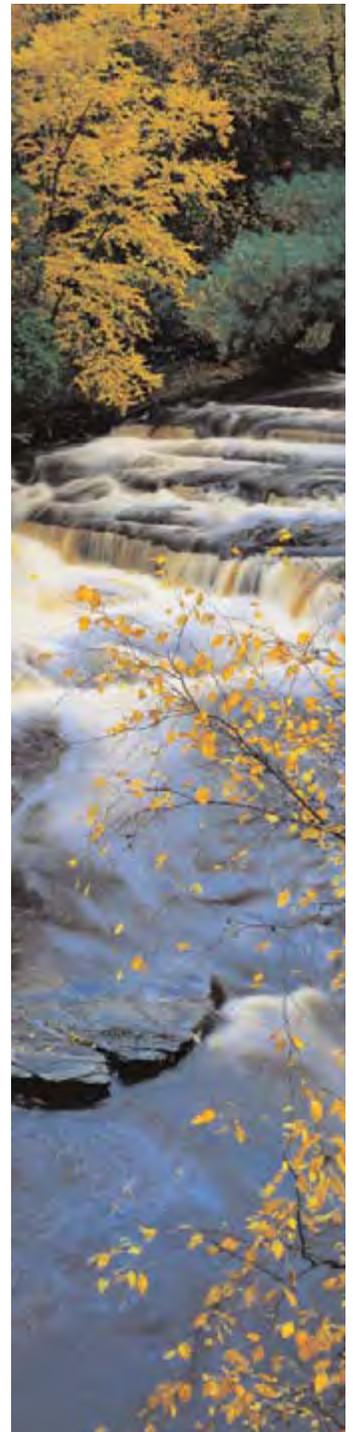
# ISO 14001 Certification

**Rohm and Haas Electronic Materials' Marlborough facility was certified to the ISO 14001 Environmental Management System (EMS) standard on October 1, 1998. In September 2004, we had a triennial recertification audit by our registrar, TÜV America. For the sixth consecutive year, the audit found no non-conformities to the ISO 14001 standard.**

An important part of an EMS is determining how the activities, products and services at a facility can significantly impact the environment. The term used to describe these sources is a significant environmental aspect. The Marlborough facility has completed a comprehensive review of our activities, products and services and determined the following are the significant environmental aspects at the Marlborough facility:

- Emissions to Air
- Wastewater Discharges
- Storm Water Management
- Waste Management (Hazardous Waste, Solvent Recycling)
- Hazardous Materials Management
- Resource Use (Energy, Water)
- Transportation of Hazardous Materials

We are currently working on expanding our EMS by pursuing the Responsible Care® 14001 technical specification (RC14001). This specification, developed by the American Chemistry Council, incorporates health, safety, security, as well as product stewardship activities into our existing environmental management system. We will pursue third-party certification to RC14001 standard to verify dual conformance with Responsible Care® and ISO 14001 requirements.



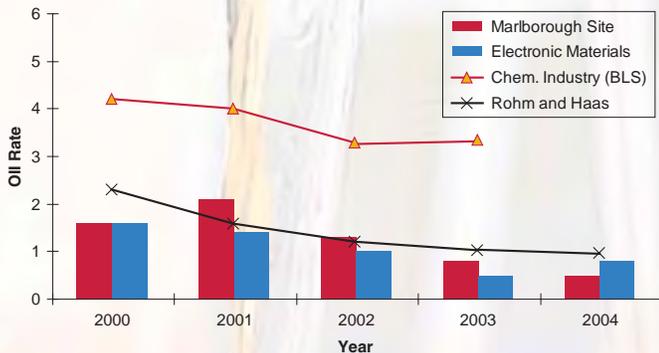
# Health and Safety

## Occupational Injury and Illness Rates

The Occupational Injury and Illness (OII) rate is a results measure that serves as a downstream indicator of a company's safety performance. The rate, as specified by the Bureau of Labor Statistics, measures the number of recordable injuries or illnesses per total number of man-hours worked. This rate is standardized against 200,000 man-hours—which is an approximation of the number of hours worked by 100 workers in one year. The company's numerous safety programs, such as hazard assessments and behavioral-based safety, should lead to a reduction in unsafe behaviors, total incidents and injury rates.

The year 2004 saw a continuation in the reduction of the OII Incident Rate. The Marlborough site experienced an overall rate of 0.55, its best ever. Our goal, however, remains one of an injury-free workplace by continuously improving our safety and health programs.

Occupational Injury and Illness (OII) Rate



The Rohm and Haas Safety Vision is to be injury free. To achieve the vision, safety has to be a value, not an initiative. The Safety Journey is our long-term strategy for improving our safety performance. As a foundation for this Safety Journey, we have embraced the following five safety beliefs:

1. The health and safety of people is valued above all else.
2. All occupational injuries and illnesses can be prevented.
3. Excellence in safety is equal to excellence in other aspects of business like quality, productivity and profitability. If one is improved, the others will as well. You can have a positive impact on all operations and customers by being a safe and healthy employee.
4. Safety must be made an integral part of everything we do.
5. Good safety is a result of the attitudes, behaviors and beliefs of people. Most injuries and safety incidents occur because of lack of attention to safety. People take risks and allow others to take risks because they believe they will not get hurt.

In December 2004, the Marlborough site, along with the entire Electronic Materials business, stopped all worldwide operations for three hours to discuss our safety beliefs as well as additional Safety Journey progress needs. These focused meetings involved more than 27 sites, more than 2,700 employees and more than 10,000 man-hours spent entirely on discussing safety improvements.

## Employee Involvement

The most powerful way to embed safety as a value is to involve everyone in safety, develop ownership at the working level and empower employees to manage safety. The Safety Journey is our framework for doing this. Every Marlborough-based employee is expected to have individual goals associated with safety improvement.

By our continued efforts to increase involvement, employees recognize not only the personal benefit of safety, but also the added benefit of cooperating and working with others. Safety also becomes integrated into the work unit. Teamwork, communication, and cooperation become the norm, and employees take on the role of looking out for each other's well being. Safety has become a value and is fully integrated into the business and performance management. This interdependent culture is associated with the lowest incidence rates, approaching our ultimate goal of an injury-free workplace.

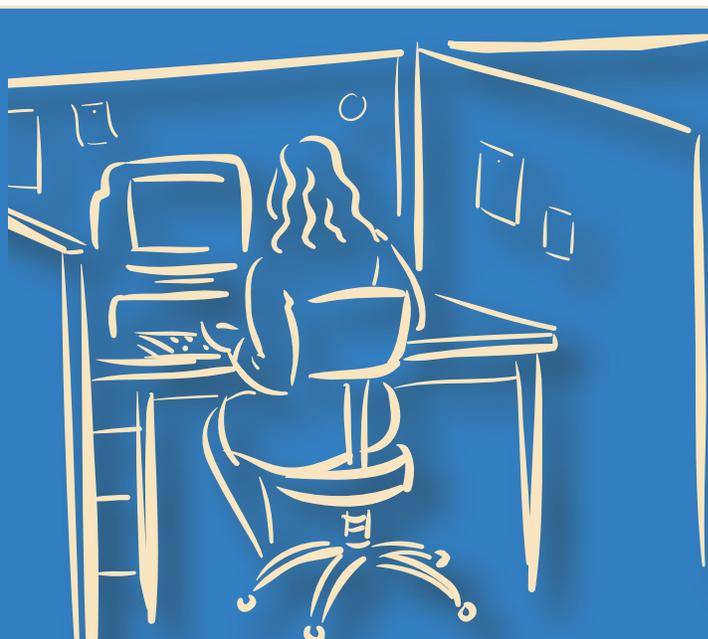
## Behavior-Based Safety

The Marlborough site utilizes a behavioral-based safety audit program. This type of program focuses on identifying and correcting a primary cause of safety-related incidents—unsafe behaviors. Reducing the underlying precursor behaviors at the Marlborough facility has contributed to our improved workplace safety program performance. Addressing the contribution of human behavior to workplace safety complements the traditional approach of focusing on workplace “conditions.”



## Workplace Safety—Ergonomics

For the third straight year, the Marlborough site was awarded a competitive grant of more than \$11,000 from the Commonwealth of Massachusetts for ergonomic training and workplace evaluations. A local ergonomic contractor was funded through the grant to provide ergonomic hazard awareness training and workplace surveys. A survey conducted jointly by the contractor and internal company resources has resulted in an extensive redesign of a major manufacturing area, greatly reducing ergonomic risks in that area. Workplace reviews, workplace behavioral safety audits and ergonomics training as an element of process hazards analysis are reducing ergonomic factors that can be associated with workplace injuries.



# 2004 Commu

The Rohm and Haas Electronic Materials business in Marlborough continues to be an active and growing player in support of the local community. The Rohm and Haas Electronic Materials Marlborough site was named Business of the Year by the Marlborough Regional Chamber of Commerce. This award recognizes the many contributions that Rohm and Haas Electronic Materials and Marlborough employees make to the community. In addition to the award, we received acknowledgements from the City of Marlborough, the State Senate, the State House of Representatives and the U.S. Congress. Listed below are some examples of how our business and our employees have made a difference in the community:

## Rohm and Haas Key Partners

**United Way** Each year, our employees have the opportunity to make contributions to non-profit organizations through the United Way. Our Electronic Materials site campaigns resulted in more than \$120,000 going to the United Way from the Company and our employees. The Marlborough location also participated in the Backpack-to-School program providing 70 local school children with backpacks filled with school supplies. The Company was also represented at the Annual Women's Leadership Fundraiser by ten employees.

**FIRST Robotics** We continue our sponsorship of the "For the Inspiration and Recognition of Science and Technology" (FIRST) program at Algonquin Regional High School in Northborough, Massachusetts. Our involvement is through active employee hands-on leadership and financial support.

**Camp Invention** In 2004, we added this summer educational enrichment program for primary-level teachers, future educators and children entering grades 2-6.

In 2005, we will sponsor **MathCounts**, a national math coaching and competition program for middle school children as another Rohm and Haas Key Partner.

# Community Outreach

## Local Community Programs

**Arts Alliance** We sponsor cultural programs aimed at youth and families offered by this local arts organization.

**Blood Drives** During 2004, our employees donated 192 pints of blood to the MetroWest Hospital Blood Donor Program. Since the inception of this program in 1992, our Marlborough employees have donated more than 1,530 pints of blood.

**Boys and Girls Clubs of MetroWest** We continued to be a major contributor to the growth and development of the Club's programs supporting local youth.

**Evening of Giving** Our sponsorship of this event benefiting the Marlborough/Hudson Homeless Shelter continued. We distribute event tickets to our employees. The event is held in a local hotel with food supplied by local restaurants.

## Employee-Driven Programs

**Canned Food Drives** In a year of increasing numbers of people served by the local food pantry, we continued our canned food drives at the Marlborough location. The drives resulted in donations of food and monies to the Marlborough Community Services organization that operates the local food pantry.

**Hat and Glove Drive** Something new for 2004 was a hat and glove drive prompted by a request from an employee's child. Our donations filled 12 boxes and supplemented a drive spearheaded at the local middle school.

**Holiday Hopes Program** This program remains a year-end holiday staple. The Marlborough Community Services organization provides us with the ages and holiday wishes of children that are put on a snowflake. Employees choose a snowflake and pur-

chase the listed items for the children they have selected. In 2004, we brightened the holidays for 125 children. Each year, the generosity of our employees continues to grow.

**Reading Is Fun (RIF)** For several years, one of our employees has taken a group of fellow employees to a local grade school where employees participate in this event by reading a book selection to a group of young children.

**U.S. Military in Iraq** An employee established an on-going donation program that ended up sending 900 pounds of supplies to a group of 27 soldiers stationed in Iraq. Supplies included food, toiletries, reading material and sports equipment.

## Partnerships in Education

Our relationship in support of our four local high schools has grown to include: college scholarships to graduating seniors, support of yearbook publications and supervised post-prom parties, and participation in Job Shadow Day where students visit our site. In 2004, we also had two teachers work as summer interns in our Quality organization as part of the Leadership Initiative For Teaching and Technology (LIFT2).

We have enjoyed a long-standing relationship with Northeastern University in Boston and its Cooperative Education program. The foundation of the relationship is built on Chemical Engineering students who alternate periods of classroom education and working in our technology organizations. In 2004, we also sponsored campus events for the school's chapters of both the American Institute of Chemical Engineers (AIChE) and the Society of Women Engineers (SWE).

# Protection of our Employees and the Community

In response to **Homeland Security** measures being implemented nationwide, the American Chemistry Council (ACC) developed a comprehensive Security Code. All member companies in the chemical industry value chain

must implement this Code. Rohm and Haas Company continues to be an active member in the ACC, and all Rohm and Haas facilities in the US have taken action to implement this important code. A key part of the Security Code is conducting a security vulnerability assessment and



then determining the likelihood and severity of potential security threats. This assessment was completed at the Marlborough facility and we were classified as a facility posing a low risk.



A key component in the protection of the health, safety and security of our employees and neighbors is a **well-trained, experienced emergency response team**. We take pride in the commitment and dedication of our volunteer Emergency Response Team (ERT) at the Marlborough facility. By participating on the Local Emergency Planning Committee (LEPC), the ERT continually reinforces our relationships with local emergency responders to strengthen our ability to work together in the event of emergencies.

The ERT participates in monthly training programs that provide them with the opportunity to demonstrate and improve our **emergency preparation and response**. We have invited local firefighters to our functional training exercises when we focus on a specific technique, such as performing a simulated confined space rescue. A

rescue scenario is developed and each member of the team practices making a rescue where we remove mannequins or actual persons from the confined space. These hands-on exercises ensure our competency without disruption to



facility operations. Instructors are veteran emergency responders who bring a wealth of knowledge and experience to their jobs. We conclude each of our emergency response drills with a debriefing session that allows participants to share information and learn from each other's experience.

We have fully integrated our emergency preparedness activities into our environmental, health and safety (EHS) management



system to ensure EHS risks associated with Rohm and Haas Electronic Materials activities are **well understood and effectively managed**. Expecting the unexpected—that's what emergency planning and response management is all about.

## 2004 Environmental, Health and Safety

# Objectives and Targets

The Marlborough facility has been formally setting EHS objectives and targets for many years. The table below outlines some of the EHS objectives and targets that were established for calendar year 2004, and the associated results.

### Objectives and Targets

### Results Achieved

Reduce work-related injuries and illness. "Goal-is-Zero" OII for Electronic Materials worldwide.

The 2004 OII rate for the Marlborough facility was 0.55, our best ever. The Rohm and Haas Electronic Materials worldwide rate was 0.78, a slight increase from last year's rate of 0.5.

Comply with all applicable health, safety, and environmental regulations. Receive no violations or penalties from regulatory agencies. Corporate business unit target of <5 reportable releases per quarter.

All required reports were submitted for the Marlborough facility. A multimedia inspection by our state Department of Environmental Protection was conducted in November 2004 with no violations or penalties. We had one reportable release in 2004.

Receive no significant findings during the ISO 14001 annual surveillance audit.

There were no significant findings found during our ISO 14001 recertification audit.

Development and delivery of a comprehensive First Line Leader (FLL) training program to site supervisors in the Operations and Technology groups.

FLL program was very successful and made a positive impact on the site safety culture.

Facilitate process safety and management of change efforts for relocating Moss Point operations to the Marlborough site.

Hazard reviews were completed and operations were successfully integrated.

Provide employees, customers and community stakeholders with EHS information on the Marlborough facility and demonstrate our commitment to Responsible Care® by preparing an annual environmental report.

The EHS Annual Environmental Report was distributed to all North American Electronic Materials employees, key customers, organizations overseas, and to local community officials.

Determine a technically feasible and cost-effective technology to reduce and/or recycle wastewater generated in the pilot plant.

Separation technologies and water re-use options continue to be evaluated. No viable technologies have been found to date.

Renew commitment to EPA's Performance Track program and set new targets for 2004–2006. The new targets are as follows:

The following results against baseline were achieved:

Energy Challenge – Complete a Greenhouse Gas (GHG) Inventory and reduce GHGs by 5%

Energy – A GHG inventory was completed and total energy consumption increased by 3% due to addition of new equipment and processes in 2004.

Reduce use of acetone by 10%

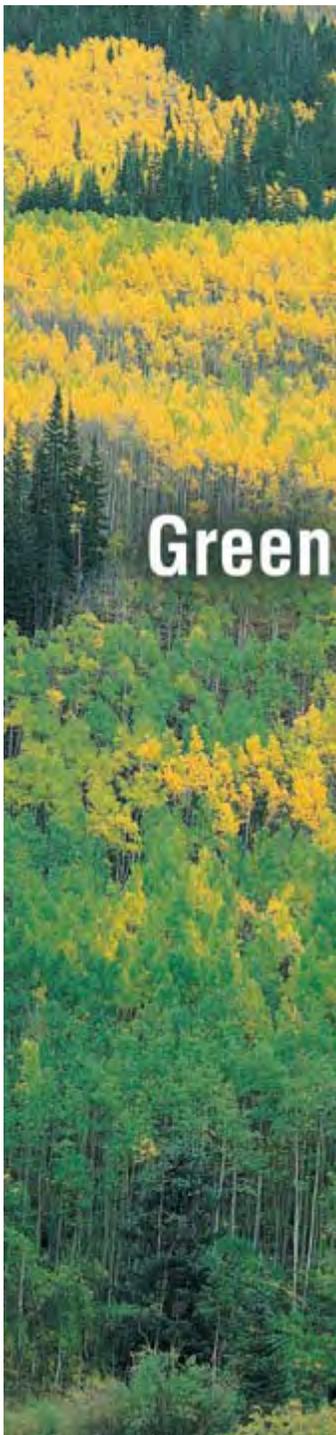
Normalized energy (energy/product) was reduced by 9% in 2004 vs 2003.

Reduce cleaning solvents by 6 tons

Acetone – Reduced usage by 27% vs. 2003

Cleaning solvent – Reduced by 19 tons vs. 2003

# Sustainable Deve



Rohm and Haas Electronic Materials has made many accomplishments in the three pillars of sustainable development: social equity, environmental protection and economic growth. We recognize there is still much work to be done to fully integrate sustainable development into our current business strategies. In 2004, our business unit presidents appointed a Sustainable Development (SD) Team with representatives from the four Rohm and Haas Electronic Materials businesses. The mission of the team is to promote SD integration and develop a framework that measures our performance against economic, social and environmental parameters, commonly called “a triple bottom line.” One of the team’s first tasks was to develop a comprehensive overview of Rohm and Haas Electronic Materials’ sustainability programs for a presentation to the Rohm and Haas Board of Directors’ Committee on Sustainable Development. The Board members were very impressed with Rohm and Haas Electronic Materials’ programs and our progress on integrating SD into our business practices.

## Green Chemistry in the Rohm and Haas Electronic Material Business

The Marlborough site conducted a Green Chemistry seminar for our North America Electronic Materials Technology staff in early 2004. The key note address was given by Dr. John Warner, Director of Green Chemistry at the University of Massachusetts. Dr. Warner’s inspirational words and practical approach were very well received and quickly put into action throughout the Electronic Materials Technology community. The seminar also included presentations from Rohm and Haas Electronic Materials employees in Microelectronics, Packaging and Finishing Technologies and Circuit Board Technologies on the green initiatives underway for their respective business unit. Videos from the seminar were shared with our colleagues at Rohm and Haas Electronic Materials locations across the globe and the presentation was also available for on-line viewing. Examples of the green initiatives underway throughout the Rohm and Haas Electronic Materials businesses follow:

# lopment

**Microelectronics** Our technology staff is actively working on creating new products that do not contain perfluorooctyl sulfonates (PFOS) and perfluoralkyl sulfonates (PFAS) because the substances are now classified as persistent bioaccumulative toxins. We are currently offering “greener” alternatives to PFOS and PFAS substances throughout our product portfolio and we remain committed to producing world-class environmentally-sound products.

**Packaging and Finishing Technologies** The Packaging and Finishing Technologies business has undertaken many development programs for greener products including: lead-free solderable finishes; less hazardous and biodegradable electrolytes (methanesulfonic acid); cyanide-free electrolytes for gold plating; and chrome-free, aqueous processes for plating on plastics. Packaging and Finishing Technologies products were also reformulated with ethoxylated linear alcohols as substitutes for nonylphenol ethoxylates (NPE) which were banned in the European Union (EU).

**Circuit Board Technologies** Circuit Board Technologies has also been active on removing NPE materials from its product portfolio. They are also working on greener alternatives in response to the EU Directives, such as Waste Electrical and Electronic Equipment (WEEE) and Restriction on Hazardous Substances (RoHS) that were developed to reduce the environmental impact of electrical and electronic components.

Our Circuit Board Technologies technology group in the United Kingdom (UK) continues to be very active in joint projects with UK and EU agencies in developing many pollution prevention “best practices” for the industry we serve. The past projects include plastic drum recycling, waste water treatment techniques and the published guide, “The Printed Circuit Board Industry, An Environmental Best Practice Guide.”





## **ELECTRONIC MATERIALS**



**Circuit Board Technologies**



**CMP Technologies**



**Microelectronic Technologies**



**Packaging and Finishing Technologies**

For locations and information please visit <http://electronicmaterials.rohmhaas.com>

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