



CHEMISTRY FOR LIFE



ABOUT THE COMPANY

ALBEMARLE CORPORATION provides innovative development, manufacturing and marketing of complex chemicals and services that create customer value and shareholder wealth. Focusing on “chemistry for life,” we are a global producer of specialty chemicals that provide an overall benefit to human life.

A diversified mix of innovative products is sold to a wide range of customers and end markets. We have over 3,400 customers spread over approximately 100 countries. Our products are sold into end markets that are vital to the global economy, including consumer electronics, petroleum refining, packaging, construction, automotive, pharmaceuticals and agrichemicals.

Our approximately 3,700 employees direct their efforts on solving our customers’ toughest problems and challenges. Identifying and implementing innovative solutions is a way of life at Albemarle. We have a global footprint with 38 locations, including joint ventures, spread over North and South America, Europe and Asia.

Technological leadership is one of our underlying traits. We have an exceptionally strong proprietary position in our solutions-based product portfolio. With approximately 1,600 patents and more than 1,000 pending applications, new product sales now represent close to 20% of our total net sales.

TO OUR SHAREHOLDERS



OVER THE LAST SIX YEARS, we have grown from an \$800 million company to one with annualized sales of over \$1.5 billion. Our customer base is diverse and spread over 100 countries around the globe. In these changing times, we have provided solutions to meet societal challenges such as cleaner fuels, home fire safety, health care and crop protection for developing nations. Albemarle now has roughly 3,700 employees who work diligently with a “we can do that” attitude to solve complex problems. While the last four years have been difficult globally, it is evident our business formula is adding material value to our customers. Our team approach to identifying and providing solutions has been, and will continue to be, a market-differentiating factor contributing to our success.

In 2004, while faced with many challenges, Albemarle showed leadership in the continued growth and success of our business. We dealt with another year of dramatic inflation in raw materials and the natural product evolution and maturation of our fine chemistry portfolio. We added new technology platforms and overcame numerous headwinds to improve our performance by most metrics.

AMONG OUR ACHIEVEMENTS, WE:

- Materially grew our company through the acquisition of Akzo Nobel’s refinery catalyst business, creating a new market segment well positioned for future growth
- Grew sales revenue by 36% to \$1.5 billion, with sales from new products approaching the 20% level

- Received 59 supplier recognition awards
- Achieved our best level of environmental performance, reducing environmental incidents by 10% from 2003 and over 50% since 2001
- Achieved our best level of safety performance in the Company’s history, solidifying our position in the top 10% of the chemical industry in this area
- Increased our quarterly dividend for the tenth consecutive year
- Increased equity value by 29%, with the stock ending the year at \$38.71 per share
- Saw our governance practices recognized in the top 10% of our industry by Institutional Shareholder Services (ISS)

ACQUISITIONS

Acquisitions remain a major component of our growth strategy. Last year, we continued our program with the successful conclusion of the Akzo Nobel refinery



FINANCIAL HIGHLIGHTS

CORPORATE SUMMARY

(In Thousands Except Per-Share Amounts)	2004	2003	Increase (Decrease)
Net Sales	\$1,513,737	\$1,110,237	36%
Net Income	\$ 54,839 ^{(a)(b)(c)}	\$ 71,945 ^{(b)(d)(e)}	(24%)
Net Cash Provided from Operating Activities	\$ 191,555	\$ 150,098	28%
EBITDA (See reconciliation)	\$ 186,462	\$ 177,445	5%
Total Assets	\$2,442,745	\$1,387,291	76%
Capital Expenditures Including			
Investments in Joint Ventures	\$ 67,565	\$ 52,660	28%
Acquisitions, Net of Cash Acquired	\$ 785,247	\$ 117,767	567%
Total Long-Term Debt	\$ 944,631	\$ 228,579	313%
Total Long-Term Debt as a % of Total Capitalization	57.0%	26.4%	116%
Shares Outstanding at End of Year	41,898	41,153	2%
Return on Average Shareholders' Equity	8.1%	11.9%	(32%)
Per Common Share			
Diluted Earnings Per Share	\$ 1.29 ^{(a)(b)(c)}	\$ 1.71 ^{(b)(d)(e)}	(25%)
Cash Dividends Declared Per Share	\$.585	\$.565	4%
Shareholders' Equity Per Share	\$ 16.98	\$ 15.46	10%
Year-End Closing Price	\$ 38.71	\$ 29.97	29%

SUMMARY OF SEGMENT RESULTS

Operating Segments	2004		2003	
	Revenues	Income	Revenues	Income
Polymer Additives	\$ 726,275	\$ 84,108	\$ 547,461	\$ 58,527
Catalysts	283,394	15,254	82,959	12,305
Fine Chemicals	504,068	38,697	479,817	48,526
Segment Totals	\$1,513,737	138,059 ^{(a)(b)}	\$1,110,237	119,358 ^(b)
Corporate and Other Expenses		(35,978)		(26,534) ^(b)
Operating Profit		102,081		92,824
Interest and Financing Expenses		(17,350)		(5,376)
Other (Expense) Income, Net Including Minority Interest		(12,887) ^(c)		607 ^(d)
Income Before Income Taxes		71,844		88,055
Income Taxes		17,005		13,890 ^(d)
Income Before Cumulative Effect of a Change in Accounting Principle, Net		54,839		74,165
Cumulative Effect of a Change in Accounting Principle, Net		—		(2,220) ^(e)
Net Income		\$ 54,839		\$ 71,945

(a) Includes charges for acquisition-related costs of \$13,400 (\$8,536 after income taxes) and in-process R&D of \$3,000 associated with the refinery catalysts business acquisition and a cost settlement of \$6,945 (\$4,424 after income taxes) from a former insurer.

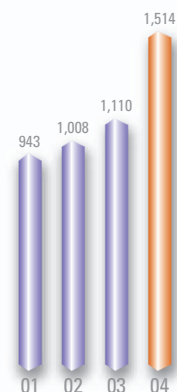
(b) 2004 includes charges of \$4,858 (\$3,094 after income taxes) resulting from layoffs and cleanup costs at the Pasadena plant zeolite facility as well as \$3,396 (\$2,163 after income taxes) relating to a valuation reserve on an insurance claim receivable. 2003 includes charges of \$7,503 (\$4,780 after income taxes) resulting from a workforce reduction as well as \$2,546 (\$1,622 after income taxes) resulting from a SFAS No. 144 impairment for "real estate held for sale."

(c) Includes a foreign exchange hedging charge of \$12,848 (\$8,184 after income taxes) associated with the refinery catalysts business acquisition.

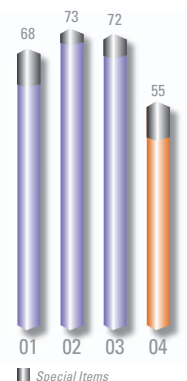
(d) Includes a \$6,199 tax refund, including interest of \$2,715 (\$1,730 after income taxes), and the release of \$7,516 of valuation reserves to earnings relating to IRS examinations.

(e) Includes a charge related to the implementation of SFAS No. 143, "Accounting for Asset Retirement Obligations," for \$3,485 (\$2,220 after income taxes).

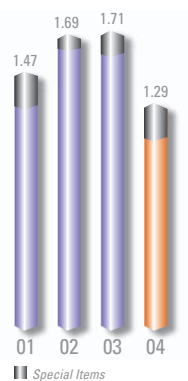
Net Sales (In Millions)



Net Income (In Millions)



Diluted Earnings Per Share (In Dollars)



catalyst business acquisition. This business produces roughly 30% of the world's supply of hydroprocessing catalysts used to create and clean fuels. We merged our polyolefins catalyst business, previously part of the Polymer Chemicals segment, with the refinery catalysts business to form a new Catalysts segment focused on growing this technology.

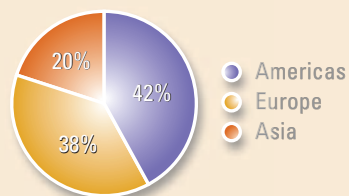
INNOVATION & FOUNDATION TECHNOLOGY

Our most fundamental strategy for all businesses is to provide highly engineered, specialty chemicals that enable our customers to deliver higher value for their products. These solutions are built upon our foundation chemistry technologies, including bromine, phosphorus, alumina, zeolites, metal oxides and organometallics. In 2004, we were awarded nearly 300 U.S. and foreign patents for novel discoveries, bringing our current portfolio of active patents to approximately 1,600, with close to 1,000 pending applications.

Sales from new products exceeded \$260 million in 2004, or roughly 17% of our portfolio. This includes the contribution from refinery catalysts, which historically has generated roughly 40% of sales from new products. Likewise, we increased R&D spending to an annualized level of approximately \$46 million or roughly 3.0% of net sales. We changed our business approach in fine chemistry, and in the process, we forged new relationships with leading active innovators. We consistently receive 65 to 70 inquiries for new business opportunities per month and now have over 90 pharmaceutical related products in our fine chemistry pipeline. Additionally, we have another 43 products in the

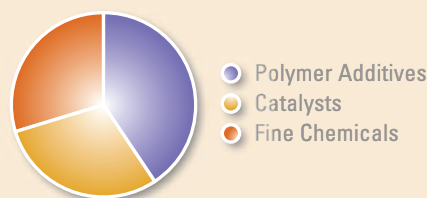
Globalization

\$ 1,514 Million Net Sales (excluding JVs)



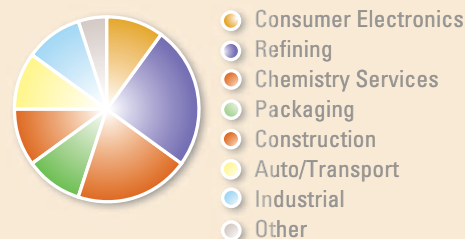
Products

Approximate Net Sales Distribution



End Markets

Approximate Net Sales Distribution



pipeline for other markets, such as agrichemicals, imaging chemicals and cosmetics. This effort has led to new product manufacturing opportunities such as:

- A new specialty food ingredient that will move to full-scale production in 2005;
- Semi-commercial production of a new insecticide; and
- Intermediates for late-clinical trial medications for hepatitis B, hepatitis C and HIV/AIDS.

With sales from new products approaching 20% of our portfolio, this represents a level roughly three times what we experienced in 2000. While we already have well-placed technical support for our Americas and European markets, we will begin shifting our efforts to place additional technical support resources more directly in touch with our customers in expanding areas such as Asia. We expect this initiative will allow us to grow more rapidly in this critical region of the world.

SUSTAINABILITY & STEWARDSHIP

We have always taken seriously our obligation to operate our facilities in a safe and environmentally sound fashion. We have also had a long history of being

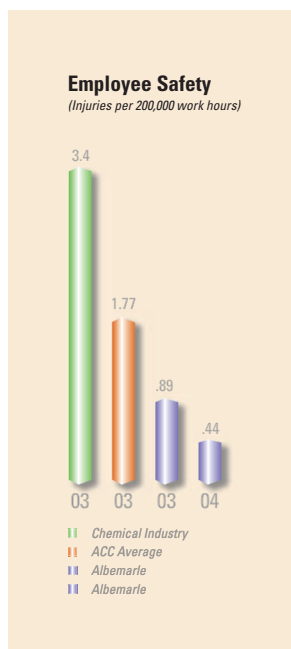
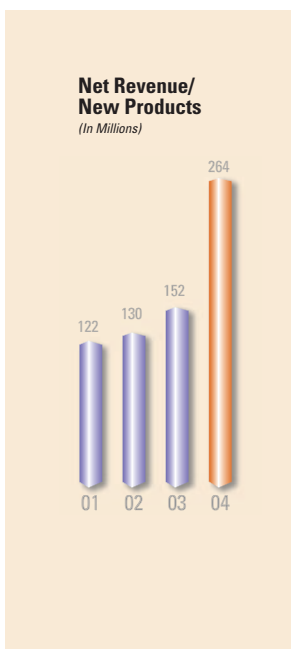
proactive in product stewardship to see that our products are safe in their use. While extremely proud of our accomplishments, it is appropriate for us to look to the future and develop a new model, one of sustainability. What this means is that we will work to ensure that we do our part to create global solutions that positively impact humanity, as we strive to eliminate any unintended negative consequence that could be caused by our global business activities. Some examples of our exemplary work in the area of sustainability are:

We have made substantial investments to decrease the waste generated and the emissions created by our operations.

- Tyrone, PA — We successfully achieved recovery and re-use of solvents, alleviating the need for their disposal.
- Magnolia, AR — We reduced the amount of a by-product waste stream going to landfill from 1.8 million lbs. to 680 thousand lbs, and are working to further reduce this amount.
- Pasadena, TX — We reduced nitrous oxide emissions which helped to support the area's ozone attainment targets.

Several advancements in the area of product distribution were made this past year.

- We upgraded our product containers for transportation of regulated materials (bromine, methyl bromide, aluminum alkyls).
- We increased security of our distribution operations through container tracking, training and auditing of our haulers, and enhanced routing controls.
- We continued our program to audit our tollers, waste disposers, warehouse and shipping providers, and took action when needed to ensure our products are handled by the safest measures possible.



Our employees around the globe continued to be ambassadors for our commitment to safety and environmental excellence by participating in community activities such as:

- Fire safety training for elementary school children
- Trash collection and recycling events
- Participation in the Grant a Wish program
- Educational support for high school chemistry classes and participation in sponsorship of math and science awards

Outreach and safety efforts such as these have led to much recognition for our sites. Most significantly, our Tyrone, Pennsylvania plant was one of only three sites in the U.S. to be awarded the Synthetic Organic Chemical Manufacturing Association’s (SOCMA) Excellence Award.

These are just a handful of examples of the efforts our employees put forth throughout the year. Looking forward ten years, I have no doubt that we will become one of the leaders in our industry to drive sustainability. While management is setting the direction for continued growth of our business, we recognize that nothing is possible without the strong support and encouragement of employees throughout the organization. I want to



thank each of them for their efforts over the past year, recognizing that our success is the direct result of their individual achievements.

Looking ahead, I believe we are entering a period where the world will experience dramatic growth. That growth will be fueled through innovation to solve the many challenges society faces. Thanks to our employees, our customers and our shareholders, Albemarle is well positioned globally to be a provider of critical, value-adding solutions that provide the “Chemistry for Life.”

Our company has experienced tremendous success in its first decade of existence. I am confident that our second decade will bring an equally strong portfolio of accomplishments.

In closing, I would like to add a note of gratitude to Lloyd Andrew for his tremendous contribution during his two terms of service on the Albemarle Board of Directors.

Mark C. Rohr
President and Chief Executive Officer



POLYMER ADDITIVES

OUR MARKET DRIVERS

Electronics: Market growth in electrical and electronic products such as appliances, computers, televisions and telecommunication devices stimulates demand for plastic enclosures, printed wiring boards, wire and cable and connectors. Changing performance criteria result in substitution of one plastic for another, creating new additive requirements.

Construction: Regulatory support of fire safety for home and office, new furniture flammability standards, and growth in new construction technologies drive additives growth in wire and cable, connectors, roofing, foam cushioning, insulation, films and specialty coatings markets. Market growth in China and other developing nations builds strong demand for plastic pipe and other polymeric building materials.

Packaging: Continued expansion of worldwide polymer markets drives growth in demand for plastic additives. Growing expectations for convenience and safety increases use of product blends we offer.

Automotive: General market growth, continued push for weight reduction, improvements in vehicle safety, increased emphasis on higher performance wire, cable and connectors, miniaturization, improvements in fire-safety, and environmental factors all lead to continued demand for innovative additives.

National Security: The drive for improved transportation, building, and personal safety develops new markets for additives we produce, as well as the introduction of new molecules.

WHERE OUR PRODUCTS ADD VALUE

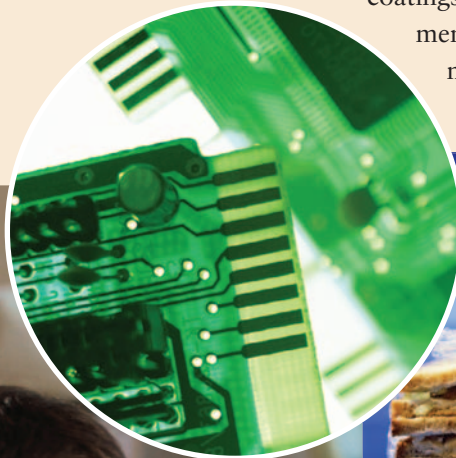
Electronics: Our flame retardants protect electronic circuit boards, cellular telephones, televisions, computer monitors, office equipment, electrical connectors, cool-to-the-touch toasters and a host of other products. Our additives give plastics their impact resistance and other advanced properties.

Construction: Roofing tiles and membranes, rigid foam insulation, flexible foam seating, carpeting, wire and cable, mechanical parts, pipe, concrete infrastructure and railways are all improved by our products.

Packaging: Rotomolded shapes, food packaging materials, medical materials, conveyor belts, inks, coatings and adhesives all contain our products. Our chemicals promote cross-linking and stabilization of plastic components including: pipe, bottles, diapers and many other items.

Automotive: Automobile tires and truck bedliners, wire, cable, polyurethane body panels, bumpers and interior panels benefit from our products.

National Security: Our products are used by formulators and fabricators in products being developed for lightweight, bulletproof, transparent materials and spray coatings for reduced fragmentation of building materials.





CATALYSTS

OUR MARKET DRIVERS

Energy: Increasing demand for crude oil-based fuels supplying 50 percent of the world's energy, creating a market for refinery catalysts of greater than \$2 billion.

Transportation: Ever-tightening fuel quality requirements, increasing petroleum product demand, shifting product mix away from "heavy" fuels and the generally deteriorating quality of crude oil feedstock.

Packaging: Demand for the raw material building blocks (lighter carbon molecules) for the plastics industry. Continuing expansion of the \$2.2 billion market segment — particularly the two-billion pound metallocene-based polymers area of this market, now growing at about 20 percent annually. New polymers featuring increased impact strength and toughness, better melt characteristics and improved clarity in films.

WHERE WE ARE IN THE MARKET

Energy: Catalysts serve a vital role in the creation of clean fuels based on crude oil. Our products help extract the maximum value from crude by converting it into higher value products — gasoline, flight fuels, diesel fuels, heating oils and many derivatives.

Transportation: Our hydroprocessing catalysts provide refiners with the ability to remove naturally occurring contaminants, including sulphur, nitrogen and metals, from petroleum streams and products like gasoline and diesel. Fluidized catalytic cracking catalysts and additives manufactured by us allow refiners to be very selective in the products they produce from crude oil, such as high octane premium grades of gasoline.

Packaging: Food wrap, stretch films, trash bags and a variety of plastic film uses.



FINE CHEMICALS



OUR MARKET DRIVERS

Pharmaceuticals: Demographic trends driving new product innovation combined with accelerated “discovery-to-launch” cycles stimulate outsourcing of manufacturing operations by the large pharmaceutical companies; growth of combination drugs using analgesics in tandem with other medications; pressure on production costs; growing competition from Asia; and regulatory improvements related to quality standards.

Industrial: Evolving substitution of chlorine with bromine in water treatment for institutional and industrial settings; completion of deep oil wells; and expanding uses of bromine building blocks.

Agrichemicals: The trend toward bio-engineered solutions to develop targeted, limited application products; industry consolidation creating opportunity for outsourcing of manufacturing; and steady-to-growing global demand, balanced by competition from non-U.S. entrants.

WHERE OUR PRODUCTS ADD VALUE

Pharmaceuticals: Our products for analgesic and anesthetic pharmaceuticals include: ibuprofen, naproxen, naproxen sodium and propofol. Our bromobenzene, alkyl bromide, n-butyl bromide, ethyl bromide, isopropyl bromide, isobutyl bromide and many other intermediate chemicals are essential building blocks for the production of drugs used to treat heart and circulatory conditions, AIDS, other infectious diseases and epilepsy.

Industrial: Inorganics based on aluminum, potassium and bromine can be found in oil well drilling and completion, specialty glasses and polishing compounds. A wide range of organic bromides are used as solvents, biocides and intermediates for other industrial products.



Agrichemicals: Soil fumigants, pre-emergent herbicides, insecticides, fungicides, pesticides and fertilizers benefit from our technology.





DIRECTORS • OFFICERS SHAREHOLDER INFORMATION

DIRECTORS

William M. Gottwald Chairman of the Board Richmond, Virginia	J. Alfred Broaddus, Jr. Retired President Federal Reserve Bank of Richmond Richmond, Virginia	Seymour S. Preston III President The Millrace Group Paoli, Pennsylvania	Anne Marie Whittemore Partner McGuireWoods LLP Richmond, Virginia
Floyd D. Gottwald, Jr. Vice Chairman of the Board Richmond, Virginia	John D. Gottwald Chairman of the Board Tredegar Corporation Richmond, Virginia	John Sherman, Jr. Vice Chairman Scott & Stringfellow, Inc. Richmond, Virginia	<i>Member of the Audit Committee</i>
Mark C. Rohr President & Chief Executive Officer Richmond, Virginia	Richard L. Morrill Chancellor University of Richmond Richmond, Virginia	Charles E. Stewart Retired Executive Vice President Occidental Chemical Corporation Greensboro, Georgia	<i>Member of the Executive Compensation Committee</i>
Lloyd B. Andrew Retired Chief Financial Officer Ethyl Corporation Greenwood, South Carolina			<i>Member of the Nominating and Governance Committee</i>

OFFICERS AND MANAGEMENT TEAM

William M. Gottwald Chairman of the Board	William B. Allen, Jr. Corporate Controllor	Matthew K. Juneau Managing Director Europe, Middle East & Asia	Anthony S. Parnell Vice President Americas Sales & Global Accounts
Floyd D. Gottwald, Jr. Vice Chairman of the Board	John G. Dabkowski Vice President Polymer Additives	Luther C. Kissam, IV Vice President General Counsel & Secretary	Laura M. Ruiz Corporate Director Investor Relations/ Consumer Advocacy
Mark C. Rohr President & Chief Executive Officer	Mary Kay Devillier Vice President Alliance Services	Justine E. MacDonald Vice President Supply Chain Management	Scott M. Sutton Regional Director Asia Pacific
George A. Newbill Senior Vice President Manufacturing Operations	Jack P. Harsh Vice President Human Resources	Scott A. Martin Vice President Fine Chemistry Services and Intermediates	C. Kevin Wilson Treasurer
Paul F. Rocheleau Senior Vice President & Chief Financial Officer	Raymond Hurley Vice President Catalysts	John J. Nicols Vice President Fine Chemicals	Ronald C. Zumstein Vice President Health, Safety & Environment
John M. Steitz Senior Vice President Business Operations			

SHAREHOLDER INFORMATION

Stock Transfer Agent & Registrar

National City Bank
Corporate Trust Operations
Post Office Box 92301
Cleveland, Ohio 44193-0900
800-622-6757

E-mail:

shareholder.inquiries@nationalcity.com

For shareholders of record with
questions on their accounts, write or
call the transfer agent.

A dividend-reinvestment plan is available to
shareholders. For information, write or call:

National City Bank
Corporate Trust Operations
Post Office Box 94946
Cleveland, Ohio 44101-4946
800-622-6757

Investor Information

Investors interested in Albemarle's financial and operating
performance may write or call:

Albemarle Corporation
Laura Ruiz
Corporate Director
Investor Relations
330 South Fourth Street
Richmond, Virginia 23219

Phone 804-788-6045
Fax 804-788-6104

Web: Investor Information on www.albemarle.com

Annual Meeting

The annual meeting of Albemarle Corporation's shareholders will
be held in the Lod Cook Conference Center & Hotel at 3838 West
Lakeshore Drive, Baton Rouge, Louisiana on Wednesday, April 20th,
2005, at 11:00 A.M., Central Standard Time. Formal notice of the
annual meeting, proxy statement and proxy are included with this report.

Stock Listings

New York Stock Exchange
Ticker Symbol: ALB

Number of Employees

Approximately 3,700

Independent Accountants

PricewaterhouseCoopers LLP
Richmond, Virginia

Outside Counsel

Hunton & Williams, LLP
Richmond, Virginia



GLOBAL LOCATIONS

AMERICAS

Executive Offices

330 South Fourth Street, Richmond, Virginia 23219

Operations Offices

451 Florida Street, Baton Rouge, Louisiana 70801

Sales and General Offices

Baton Rouge, Louisiana • Houston, Texas

Research and Development Facilities

Baton Rouge, Louisiana • Dayton, Ohio • Pasadena, Texas
Santa Cruz, Brazil ** • Tyrone, Pennsylvania

Plants

Baton Rouge, Louisiana • Dayton, Ohio • Magnolia, Arkansas (3 locations)
Orangeburg, South Carolina • Pasadena, Texas (2 locations)
Santa Cruz, Brazil ** • Tyrone, Pennsylvania

EUROPE/MIDDLE EAST/AFRICA

Sales and General Offices

Amersfoort, Netherlands • Bergheim, Germany • Louvain-La-Neuve, Belgium

Research and Development Facilities

Amsterdam, Netherlands • Bergheim, Germany • Louvain-La-Neuve, Belgium • Thann, France

Plants

Avonmouth, United Kingdom • Bergheim, Germany • Feluy, Belgium * • La Voulte, France **
Port-de-Bouc, France • Safi, Jordan ** • St. Jakob/Breitenau, Austria **
Teesport, United Kingdom • Thann, France • Amsterdam, Netherlands

ASIA-PACIFIC

Sales and General Offices

Beijing, China • Guangzhou, China • Seoul, Korea • Shanghai, China
Singapore • Tokyo, Japan

Research and Development Facilities

Niihama, Japan **

Plants

Jin Shan District, Shanghai, China ** • Ninghai County, Zhejiang Province, China **
Niihama, Japan ** • Takaishi City, Osaka, Japan **

* Leased Location ** Joint Venture



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www.albemarle.com