

W R GRACE & CO
Form 10-K
February 25, 2011

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2010

Commission file number 1-13953

W. R. GRACE & CO.

Incorporated under the Laws of the
State of Delaware

I.R.S. Employer Identification No.
65-0773649
7500 Grace Drive, Columbia, Maryland 21044-4098
(410) 531-4000

Securities registered pursuant to Section 12(b) of the Exchange Act:

Title of each class	Name of each exchange on which registered
Common Stock, \$.01 par value	New York Stock Exchange, Inc.
Preferred Stock Purchase Rights	

Securities registered pursuant to Section 12(g) of the Exchange Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulations S-K is not contained herein and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer
(Do not check if a
smaller reporting
company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of W. R. Grace & Co. voting and non-voting common equity held by non-affiliates as of June 30, 2010 (the last business day of the registrant's most recently completed second fiscal quarter) based on the closing sale price of \$21.04 as reported on the New York Stock Exchange was \$1,073,454,151.*

At January 31, 2011, 73,137,970 shares of W. R. Grace & Co. Common Stock, \$.01 par value, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

*

Based on 51,019,684 shares of W. R. Grace & Co. ("Grace") Common Stock, \$.01 par value, held by non-affiliates (72,760,097 shares outstanding as of June 30, 2010 less 21,740,413 shares held by stockholders, whose beneficial ownership exceeds 10% of the outstanding shares of Grace Common Stock, as listed in the Grace 2009 Annual Report on Form 10-K as filed with the SEC on February 25, 2010, directors and named executive officers). Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of Grace, or that such person is controlled by or under common control with Grace.

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Unless the context otherwise indicates, in this document the terms "Grace," "we," "us," "our" or "the company" mean W. R. Grace & Co. and/or its consolidated subsidiaries and affiliates. Unless otherwise indicated, the contents of websites mentioned in this report are not incorporated by reference or otherwise made a part of this report.

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PART I

Item 1. BUSINESS

BUSINESS OVERVIEW

W. R. Grace & Co. is engaged in the production and sale of specialty chemicals and specialty materials on a global basis through its two operating segments, Grace Davison and Grace Construction Products. We entered the specialty chemicals industry in 1954, when we acquired both the Dewey and Almy Chemical Company and the Davison Chemical Company. During the 1980s and 1990s, we divested a substantial number of businesses that were not then consistent with our business strategy. Grace is the successor to a company that originated in 1854 and originally became a public company in 1953.

In 2001, Grace and 61 of its United States subsidiaries and affiliates filed voluntary petitions for reorganization under Chapter 11 of the United States Bankruptcy Code and, since then, has been subject to the jurisdiction of the United States Bankruptcy Court for the District of Delaware.

On November 30, 2009, we completed the sale of a 5% interest in Advanced Refining Technologies LLC, or ART, to our partner Chevron Products Company. We reduced our 55% interest to 50% to achieve a balanced ownership structure with Chevron. We deconsolidated ART's results from our consolidated financial statements on a prospective basis effective December 1, 2009 and now report ART using the equity method. Previously, we reported 100% of ART's sales and 55% of ART's income, with the remaining 45% of ART's income reported as income attributable to noncontrolling interests.

Our principal executive offices are located at 7500 Grace Drive, Columbia, Maryland 21044, telephone (410) 531-4000. As of December 31, 2010, we had approximately 6,000 global employees.

Grace Davison markets its products to a wide range of industrial customers, including those in the energy and refining industry, consumer, industrial and packaging industries, petrochemical and biochemical industries and the pharmaceutical and life sciences industries. Grace Davison includes the following product groups:

Refining Technologies, which includes:

Fluid Catalytic Cracking, or FCC, catalysts, that help to "crack" the hydrocarbon chain in distilled crude oil to improve yield and quality of transportation fuels, such as gasoline and diesel fuels, and other petroleum-based products; and FCC additives used to reduce sulfur in gasoline, maximize propylene production from refinery FCC units, and reduce emissions of sulfur oxides, nitrogen oxides and carbon monoxide from refinery FCC units, and

Hydroprocessing catalysts, most of which are marketed through our ART joint venture, that are used in process reactors to upgrade heavy oils into lighter, more useful products by removing impurities such as nitrogen, sulfur and heavy metals, allowing less expensive feedstocks to be used in the petroleum refining process;

Materials Technologies which includes:

Engineered Materials, including silica-based and silica-alumina-based materials, used in:

Industrial Applications, such as rubber and tires, precision investment casting, refractory, insulating glass windows, and drying applications, fulfilling various functions such as reinforcement, high temperature binding and moisture scavenging,

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Consumer Applications, as a free-flow agent, carrier or processing aid in food and personal care products; as a toothpaste abrasive; and for the processing and stabilization of edible oils and beverages,

Coatings and Print Media Applications, consisting of functional additives that provide matting effects and corrosion protection for industrial coatings, enable enhanced media and paper quality in ink jet coatings, and act as a functional filler and retention aid in paper,

Packaging Materials, including can and closure sealants used to seal and enhance the shelf life of can and bottle contents, and coatings for cans and closures that prevent metal corrosion, protect package contents from the influence of metal and ensure proper adhesion of sealing compounds and technologies designed to reduce off-taste effects and extend the shelf-life of packaged products; and

Specialty Technologies, which includes:

Polyolefin Catalysts and Catalyst Supports that are essential components in the manufacture of polyethylene and polypropylene resins, and other chemical catalysts and process technologies used in a variety of industrial, environmental and consumer applications,

Catalysts and Adsorbents for the efficient conversion of renewable feedstocks to fuels and chemicals,

Silica-based Separation Media and complementary purification products including chromatography columns and consumables used in the healthcare, pharmaceutical, life science and related industries, silica excipients used in pharmaceutical formulations and CO₂ adsorbents used in anesthesiology and mine safety applications, and

instrumentation and reference standards used in the pharmaceutical, life science and related industries.

Grace Davison accounted for approximately 67.4% of our 2010 sales.

Grace Construction Products produces and sells specialty construction chemicals and specialty building materials, including:

Concrete Admixtures and Fibers used to modify the rheology, improve the durability and enhance various other properties of concrete, mortar, masonry and other cementitious construction materials;

Additives used in cement processing to improve energy efficiency in manufacturing, enhance the characteristics of finished cement and improve ease of use;

Building Materials used in commercial and residential construction and renovation to protect buildings and civil engineering structures from water, vapor and air penetration; and

Fire Protection Materials used to retard the spread of fire in buildings.

Grace Construction Products accounted for approximately 32.6% of our 2010 sales.

Global Scope

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We operate our business on a global scale with approximately 71% of our 2010 sales outside the United States. We conduct business in over 40 countries and in more than 30 currencies. We manage our operating segments on a global basis, to serve global markets. Currency fluctuations affect our reported results of operations, cash flows, and financial position.

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Strategy Overview

Our strategy is to increase enterprise value by profitably growing our specialty chemicals and specialty materials businesses in the global marketplace and achieving high levels of efficiency. To meet these objectives, we plan to:

invest in research and development activities, with the goal of introducing new high-performance, technically differentiated products and services while continuing to enhance manufacturing processes and operations;

expand sales and manufacturing into emerging economies, including China, India, other economies in Asia, Eastern Europe, the Middle East and Latin America;

pursue selected acquisitions and alliances that complement our current product offerings or provide opportunities for faster penetration of desirable market or geographic segments; and

continue our commitment to process and productivity improvements and cost-management, such as rigorous controls on working capital and capital spending, integration of functional support services worldwide, and programs for supply chain management, which include both procurement, materials management and logistics.

CHAPTER 11 FILING

On April 2, 2001, Grace, along with 61 of our United States subsidiaries and affiliates, filed voluntary petitions for reorganization under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware. The cases are being jointly administered under case number 01-01139. Our non-U.S. subsidiaries and certain of our U.S. subsidiaries were not included in the bankruptcy filing.

Background of Chapter 11

A bankruptcy filing under Chapter 11 of the United States Bankruptcy Code is generally a voluntary action taken by a debtor to resolve financial problems such as major liabilities. Chapter 11 gives a debtor the chance to restructure its finances so that it may continue to operate, provide its employees with jobs and pay its creditors. Chapter 11 can be used by debtors that are faced with large numbers of product liability lawsuits in multiple jurisdictions to provide a practical way to address the potential liabilities under the supervision of one court. A Chapter 11 filing generally stops all lawsuits against a debtor and prevents creditors from taking action to enforce claims or collect any monies or property that might be owed at the time of filing.

Chapter 11 permits a debtor to define and resolve its liabilities under a court-supervised process generally referred to as a reorganization. Unlike a Chapter 7, or liquidation bankruptcy, which results in the sale or distribution of all of the assets of a business, Chapter 11 reorganization permits a debtor to continue its normal business operations. Existing management may continue to manage the debtor's operations during the reorganization. As a debtor-in-possession, a debtor is able to do business with suppliers and customers in a routine manner. Certain other activities, including transactions outside the ordinary course of business, generally require specific approval of the bankruptcy court.

The Chapter 11 process generally ends when a plan of reorganization for the debtor is confirmed by the bankruptcy court and the plan becomes effective following the satisfaction or waiver of any conditions, including the resolution of any appeals. In cases similar to ours with complex asbestos liabilities, debtors have taken several years to complete the Chapter 11 process.

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Grace Chapter 11 Filing

We voluntarily entered Chapter 11 to resolve comprehensively the nearly 130,000 asbestos personal injury and property damage claims against us, as well as any future demands which may be asserted. These claims and demands relate to past products and processes that involved asbestos, a mineral formerly used widely for many decades in building and other commercial products. Prior to 2000, we were able to resolve asbestos-related claims through direct negotiations and litigation, paying over \$2 billion in claims and legal costs over a 20-year period. In most of the personal injury lawsuits, we are one of many defendants. In 2000 and the first quarter of 2001, the litigation environment changed with an unexpected 81% increase in personal injury claims filed against us, which we believe was caused by a surge in unmeritorious claims. We also became a defendant in class action lawsuits alleging damages from Zonolite® Attic Insulation, or ZAI, a former attic insulation product. Trends in claims filing and settlement demands showed no sign of returning to historic levels and these unfavorable trends were exacerbated by the bankruptcy filings of several of our co-defendants in asbestos personal injury litigation. These trends greatly increased the risk that we would not be able to resolve our pending and future asbestos-related claims under the state court system.

After a thorough review of these developments, our Board of Directors concluded that a federal court-supervised bankruptcy process provided the best forum available to achieve fairness in resolving these claims and demands. On April 2, 2001, we, along with 61 of our United States subsidiaries and affiliates, filed voluntary petitions for reorganization under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware, referred to herein as the Bankruptcy Court. Since that time, we have been subject to the jurisdiction of the Bankruptcy Court.

We are currently operating as a debtor-in-possession under court protection from creditors and claimants. We believe that our bankruptcy filing will permit a comprehensive resolution of the claims against us, while preserving the inherent value of our businesses. As a consequence of our bankruptcy filing, litigation against us as of the petition date is generally stayed (subject to certain exceptions in the case of governmental authorities), and no party may take any action to realize its pre-petition claims except pursuant to an order of the Bankruptcy Court. Since our bankruptcy filing, the Bankruptcy Court has approved all motions necessary for us to conduct normal business activities.

Four committees have been appointed in the bankruptcy cases, two representing asbestos claimants, a third representing other unsecured creditors and a fourth representing shareholders. These committees, a legal representative of future asbestos personal injury claimants and a legal representative of future asbestos property damage claimants, have the right to be heard on all matters that come before the Bankruptcy Court and are playing important roles in the bankruptcy cases. We are required to bear certain costs of the committees and of the representatives of future asbestos claimants, including those of their counsel and financial advisors.

On January 31, 2011, the Bankruptcy Court issued an order confirming Grace's Joint Plan of Reorganization, which we refer to as the Joint Plan. In order to become effective, the confirmation order must be affirmed by the U.S. District Court for the District of Delaware and all other conditions set forth in the Joint Plan must be satisfied or waived, including the resolution of any appeals.

See disclosure in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information) and Note 3 (Asbestos-Related Litigation) to the Consolidated Financial Statements for a description of our proposed joint plan of reorganization and a detailed discussion of our Chapter 11 cases and asbestos-related liabilities.

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Specialty chemicals and specialty materials are high-value-added products used as catalysts, intermediates, components, protectants or additives in a wide variety of products and applications. They are generally produced in relatively small volumes (compared with commodity chemicals) and must satisfy well-defined performance requirements and specifications. Specialty chemicals and specialty materials are often critical components of end products, catalysts for the production of end products or components used in end products. Consequently, they are tailored to meet customer needs, which generally results in a close relationship between the producer and the customer.

We focus our business on the following, which we believe are important competitive factors in the specialty chemicals and specialty materials industry:

value-added products and services, sold at competitive prices;

customer service, including rapid response to changing customer needs;

technological leadership (resulting from investment in research and development and technical customer service); and

reliability of product and supply.

We believe that our focus on these competitive factors enables us to deliver increased value to customers and competitive operating margins notwithstanding the increased customer service and research and development costs that this focus entails.

Grace Davison Operating Segment

Grace Davison principally applies silica, alumina, zeolite and rubber and lattice technology in the design and manufacture of products to create significant value for our diverse customer base. Our customers include major oil refiners, plastics and chemicals manufacturers, producers of rigid food and beverage packaging, coatings manufacturers, consumer product manufacturers and pharmaceutical companies. We believe that our technological expertise provides a competitive advantage, allowing us to quickly design products and materials that help our customers create value in their markets.

The following table sets forth Grace Davison sales of similar products as a percentage of Grace total revenue.

	2010		2009		2008	
	% of		% of		% of	
	Grace		Grace		Grace	
	Sales	Revenue	Sales	Revenue	Sales	Revenue
	(In millions)					
Refining Technologies*	\$ 742.0	27.7%	\$ 992.1	35.1%	\$ 1,099.1	33.1%
Materials Technologies	673.6	25.2%	606.0	21.5%	694.8	20.9%
Specialty Technologies	386.1	14.5%	337.3	11.9%	374.7	11.3%
Total Grace Davison Revenue	\$ 1,801.7	67.4%	\$ 1,935.4	68.5%	\$ 2,168.6	65.3%

*

Grace deconsolidated ART's sales as of December 1, 2009 and now reports its share of ART's income using the equity method.

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The following table sets forth Grace Davison sales by region as a percentage of Grace Davison total revenue.

	2010		2009		2008	
	% of Grace Davison		% of Grace Davison		% of Grace Davison	
	Sales	Revenue	Sales	Revenue	Sales	Revenue
	(In millions)					
North America	\$ 486.2	27.0%	\$ 563.1	29.1%	\$ 645.9	29.8%
Europe Middle East Africa	791.7	43.9%	802.1	41.4%	913.4	42.1%
Asia Pacific	318.1	17.7%	378.4	19.6%	434.7	20.0%
Latin America	205.7	11.4%	191.8	9.9%	174.6	8.1%
Total Grace Davison Revenue*	\$ 1,801.7	100.0%	\$ 1,935.4	100.0%	\$ 2,168.6	100.0%

*

Grace deconsolidated ART's sales as of December 1, 2009 and now reports its share of ART's income using the equity method.

Refining Technologies*FCC Catalysts*

We are a global leader in developing and manufacturing fluid catalytic cracking, or FCC, catalysts and additives that enable petroleum refiners to increase profits by improving product yields and quality. Our FCC products also enable refiners to reduce emissions from their FCC units and reduce sulfur content in the gasoline that they produce.

Oil refining is a highly specialized discipline, and FCC catalysts must be tailored to meet local variations in crude oil and a refinery's product mix. We work regularly with our customers to identify the most appropriate catalyst formulations for their changing needs. We are dependent on the economics of the petroleum industry, specifically, the impacts of demand for transportation fuels and petrochemical products and crude oil supply, which affect the extent to which our customers utilize the available capacity of their refinery FCC units. In general, as a refinery utilizes more of its capacity, it needs a disproportionately greater amount of FCC catalyst. In recent years, global economic growth, especially in emerging markets, has increased the demand for transportation fuels, and our FCC catalysts and additives. Other factors may reduce the demand for petroleum-based transportation fuels such as weak economic conditions and high retail gasoline and diesel fuel prices. In addition, government policy that encourages the use of non-petroleum-based fuels, discourages the use of diesel fuel or encourages greater vehicular fuel economy may negatively affect demand for our FCC catalysts and additives.

Refinery feedstocks vary in quality from sweet to heavy crude oil. Sweet crude feedstocks are typically more expensive than heavy crude and yield a greater proportion of high-value petroleum products. They also yield a lower proportion of residual oil, or "resid," which is generally the lowest-value feedstock contained in crude oil. Although heavy crude feedstocks with high resid content are typically less expensive than higher quality feedstocks, the processing of high-resid feedstocks is more difficult because of their relatively high metals, nitrogen and sulfur contamination and higher boiling points. We have designed our MIDAS® catalyst, IMPACT® catalyst, NEKTOR catalyst, and NOMUS catalyst product portfolios to enable our customers to increase the efficiency and yield of high-resid feedstock refining.

As a result of volatility in the price of diesel fuel as compared to gasoline, refiners desire the flexibility to adjust the yield of light cycle oil, a component of diesel fuel, from their FCC units. We

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have designed our MIDAS® 300 catalyst and DieseliseR™ catalyst products to increase the yield of light cycle oil from refinery FCC units.

Many U.S. petroleum refiners have entered into consent decrees with the U.S. Environmental Protection Agency under which the refiners have agreed to reduce emissions of nitrogen oxides and sulfur oxides. The European Union has also imposed requirements on refineries with respect to nitrogen oxides and sulfur oxides emissions. FCC units are generally the largest emitters of these pollutants in a refinery. Our additives are designed to assist refineries in meeting their obligations to reduce these pollutants. Our Super DESOX® additive reduces sulfur oxides emissions from commercial FCC units. Our XNOx® and DENOX® additives are designed to achieve reductions in nitrogen oxides emissions comparable to those obtained from the capital-intensive alternatives available to a refinery.

Global economic growth, especially in emerging economies, has increased the demand for plastics. As a result, our refinery customers have sought increased profits from petrochemicals by increasing the yield of propylene from their FCC units. Our ZSM-5-based technology, including our OlefinsMax® and OlefinsUltra® additive products, is designed to maximize the propylene output of FCC units.

In recent years, many countries and regions, including the U.S., European Union, Russia, India and China have imposed or increased the regulatory limitations on the sulfur content of gasoline and diesel fuel. We have developed a portfolio of products designed to assist refiners in meeting their gasoline sulfur reduction targets including our D-PriSM® and GSR® 5 additives and our SuRCA® and Neptune™ catalyst families.

Competition in FCC catalysts and additives is based on technology, product performance, customer service and price. Our principal FCC catalyst competitors are Albemarle and BASF which, with Intercat, are also principal competitors in FCC additives. We also have multiple regional competitors for FCC catalysts and additives.

Hydroprocessing Catalysts

We market hydroprocessing catalysts primarily through ART, our joint venture with Chevron. We established ART to combine our technology with that of Chevron and to develop, market and sell hydroprocessing catalysts to customers in the petroleum refining industry worldwide.

As discussed above, our business is dependent on the economics of the petroleum industry. Refineries increasingly use feedstocks that have high resid content. We are a leading supplier of hydroprocessing catalysts designed for processing these feedstocks. We offer products for fixed-bed resid hydrotreating, on-stream catalyst replacement, ebullating-bed resid hydrocracking and distillate hydrotreating processes.

We also offer a full line of catalysts, customized for individual refiners, used in processing ultra-low sulfur content gasoline and diesel fuel, including our SmART Catalyst System® and ApART™ catalyst system. As discussed above, regulatory limitations on the sulfur content of gasoline and diesel fuel are becoming more common. These products are designed to help refiners to reduce the sulfur content of their products.

Competition in the hydroprocessing catalyst industry is based on technology, product performance, customer service and price. Albemarle, Criterion and Sinopec are our leading global competitors in hydroprocessing catalysts. We also have multiple regional competitors.

Materials Technologies

We provide enabling technologies that are silica- and silica-alumina-based functional additives and process aids, such as silica gel, colloidal silica, zeolitic adsorbents, precipitated silica and silica-

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aluminas, for a wide variety of applications. We are a global leader in can and closure sealants that, along with our specialized can and closure coatings, we supply to the packaging industry. Our product portfolio includes:

Application	Use	Key Brands
Industrial	Reinforcing agents for rubber and tires	PERKASIL®
	Inorganic binders and surface smoothening aids for precision investment casting and refractory applications	LUDOX®
	Adsorbents for dual pane windows and industrial applications, desiccant granules, beads, powders and bags and polyurethane moisture scavengers	PHONOSORB®, PHONOSORB MTX®, SYLOBEAD®, SYLOSIV®, CRYOSIV®, SAFETYSORB®
	Chemical metal polishing aids and formulations for chemical mechanical planarization/electronics applications	LUDOX®, PoliEdge®
Consumer	Toothpaste abrasives and thickening agents, free-flow agents, anticaking agents, tableting aids, cosmetic additives and flavor carriers	SYLODENT®, SYLOID® FP , SYLOBLANC®, ELFADENT®, SYLOID®, SYLOSIV®
	Edible oil refining agents, beer stabilizers and clarification aids for beer, juices and other beverages	DARACLAR®, TriSyl®
Coatings and Print Media	Matting agents, anticorrosion pigments, TiO ₂ extenders and moisture scavengers for paints and lacquers	SYLOID®, SHIELDEX®, SYLOSIV®, SYLOWHITE
	Additives and formulations for matte, semi-glossy and glossy ink receptive coatings on high performance ink jet papers, photo paper, and commercial wide-format print media	SYLOJET®, DURAFILL®, LUDOX®
	Paper retention aids, functional fillers, paper frictionizers	DURAFILL®, LUDOX®
Packaging	Can sealants for rigid containers, that ensure a hermetic seal between the lid and the body of beverage, food, aerosol and other cans	DAREX®
	Sealants for metal and plastic bottle closures that are used on pry-off and twist-off metal crowns, as well as roll-on pilfer-proof and plastic closures to seal and enhance the shelf life of food and beverages in glass and plastic bottles and jars	DAREX®, DARAFORM®, DARASEAL®, DARABLEND®, Sincera®, Celox®
	Coatings for metal packaging that are used in the manufacture of cans and closures to protect the metal against corrosion, protect the contents against the influences of metal, ensure proper adhesion of sealing compounds to metal surfaces, and provide base coats for inks and for decorative purposes	DAREX®, Apperta®, Sistiaga®
	Active packaging including oxygen scavenging closure sealants and moisture scavenging silica sachets, polymeric desiccants and desiccants for bottlestopper applications	Celox®, SYLOSORB®, SAFETYSORB®

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Our products are integrated into our customers' manufacturing processes and, when combined with our technical support, increase the efficiency and performance of their products. By working closely with our customers, we help them to respond quickly to the changing needs of brand owners and consumers. We focus on high-growth segments and seek to develop and introduce new products that add additional value to the current and future needs of our customers. For example, our customers have incorporated our products into higher resolution print media, active packaging with oxygen or moisture scavenging functionality, less abrasive high cleaning toothpastes and technologies that are friendly to the environment such as water-based and VOC-compliant coatings, green tires with lower roll resistance and non-toxic anticorrosion protection.

Our packaging products are designed to address major industry trends such as lighter weight packaging, lower energy consumption, personal convenience, and highly individualized packaging. Our growth is driven by innovation of higher performing products, continuous discovery of new applications, the need for sustainability and rising disposable income in emerging economies. We seek to capitalize upon our technical customer service, global infrastructure and expertise in global regulatory compliance (including food law compliance) to enhance our growth, especially in emerging economies.

Our Materials Technologies product group is global. Our major competitors include PQ/INEOS, Evonik, UOP and Altana, all of which market their products on a global basis. Competition is generally based on product performance, technical service and reliability, as well as additional value-added features to address the needs of our customers, end-users and brand owners.

Specialty Technologies

Specialty Catalysts and Process Technologies

We are a leading provider of catalyst systems and catalyst supports to the polyolefins industry for a variety of polyethylene and polypropylene process technologies. These types of catalysts are used for the manufacture of polyethylene and polypropylene resins used in products such as plastic film, high-performance plastic pipe, automobile parts, household appliances and household containers. We use a combination of proprietary catalyst and support technology, as well as technology licensed from third parties, to provide unique catalyst-based solutions to industry, and to provide a broad technology portfolio for enhancing collaboration opportunities with technology leaders.

Our Magnapore® polymerization catalyst is used to produce high performance polyethylene in the slurry loop process for pipe and film applications. Our POLYTRAK® polymerization catalyst is designed to achieve improved polymer performance, particularly for impact-resistant applications such as automobile bumpers and household appliances.

Our Sylobloc® polymer additives for producers and processors of plastic products prevent layers of polymer film from sticking together, improve dispersment of pigments and ease removal from molds.

Our renewables product line draws upon our expertise in catalysis and separations to develop and provide technologies for purification, drying, and biofeedstock conversion, including our EnSieve® desiccants for ethanol dehydration and EnPure® adsorbents for biodiesel purification. Growth in our renewables business is driven by sales into ethanol dehydration and bio-diesel purification applications as a result of government mandates and escalating fuel prices.

Our Davicat® standard and customized catalysts offer a wide range of chemical and physical properties based on our material science technology for supported catalysts and biotechnology applications such as nylon and artificial sweeteners. Our Raney® nickel, cobalt and copper

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hydrogenation and dehydrogenation catalysts are used for the synthesis of organic compounds for the fibers, pharmaceuticals, plastics, perfumes, soaps, color couplers and petroleum industries.

Our Sylobead® process adsorbents are used in petrochemical and natural gas processes for such applications as ethylene-cracked-gas-drying, natural gas drying and sulfur removal.

The specialty catalyst industry is technology-intensive and suppliers must provide products formulated to meet customer specifications. There are many manufacturers of polyolefin and other specialty catalysts including PQ/INEOS, Albemarle, LyondellBasell, Univation and BASF, and most sell their products worldwide.

Discovery Sciences

We market chromatography and related purification products, pharmaceutical excipients and CO₂ adsorbents including:

Products

Key Brands

Flash chromatography systems and consumables	Reveleris®, RevealX , GraceResolv
Analytical scale high performance liquid chromatograph (HPLC) columns and detectors	VisionHT , Vydac®, Alltech®, Alltima
Preparative scale purification products including media, column hardware, and equipment	Davisil®, Vydac®, MODcol®, Spring®, Multipacker®
Pharmaceutical excipients	Syloid® FP
CO ₂ adsorbents for anesthesiology and re-breathing applications	Sodasorb®

Our products are used in a wide range of applications, including drug discovery and purification, for the healthcare, pharmaceutical and biotechnology industries, environmental analysis, forensics, petrochemical analysis and the manufacture of food, cosmetics, vitamins and biofuels. We also market chromatography consumables and analytical and preparative columns packed with our specialty media. We can modify the base silica and surface chemistry for analytical, preparative and process-scale customers in order to enhance our product performance for their unique applications.

Our products compete on the basis of product quality, distinct technology and customer support. Competition for these products is highly fragmented with a large number of companies that sell their products on a global and regional basis, although a number of companies, such as Waters Corporation, Agilent Technologies and Thermo-Fisher, have a substantial global position and a relatively large installed customer base.

Manufacturing

Our Grace Davison products are manufactured by a network of globally-coordinated plants that are positioned to service our customers regionally. Our packaging products are manufactured in both large facilities to permit economies of scale and a network of smaller operations that enable customization to local market conditions. Our integrated planning organization is responsible for the effective utilization of our manufacturing capabilities.

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Marketing and Sales

We use a global organization of technical professionals with extensive experience in refining processes, catalyst development, and catalyst applications to market our Refining Technologies catalysts and additives. These professionals work to tailor our technology to the needs of each specific customer. We generally negotiate prices for our refining catalysts because our formulations are specific to the needs of each customer and each customer receives individual attention and technical service. We generally sell our hydroprocessing catalysts through multiple-year supply agreements with our geographically diverse customer base.

We use country-based direct sales forces that are dedicated to each product line and backed by application-specific technical customer service teams to market our Materials Technologies and Discovery Sciences products. Our sales force seeks to develop long-term relationships with our customers and focuses on consultative sales, technical support and key account growth programs. To ensure full geographic coverage, our direct sales organization is further supplemented, especially with respect to our Discovery Sciences products, by a network of agents and distributors.

We use a global direct sales force for our other Specialty Technologies products that seeks to maintain close working relationships with our customers. These relationships enable us to cooperate with major polymer and chemical producers to develop catalyst technologies that complement their process developments. We have geographically distributed our sales and technical service professionals to make them responsive to the needs of our geographically diverse customers. We typically operate under long-term contracts with our customers.

Our marketing and research and development functions operate globally. We offer web-based support, including technical service, literature access, customer feedback tools, and process design formulas to assist our Specialty Technologies customers in determining their needs for our products.

Seasonality does not have a significant overall effect on our Grace Davison operating segment. However, sales of FCC catalysts tend to be lower in the first calendar quarter prior to the shift in production by refineries from home heating oil for the winter season to gasoline production for the summer season. FCC catalysts and ebullating-bed hydroprocessing catalysts are consumed at a relatively steady rate and are replaced regularly. Fixed-bed hydroprocessing catalysts are consumed over a period of years and are replaced in bulk in an irregular pattern. Since our customers periodically shut down their refining processes to replace fixed-bed hydroprocessing catalysts in bulk, our hydroprocessing catalyst sales to any customer can vary substantially over the course of a year and between years based on that customer's catalyst replacement schedule. Our packaging products and some of our construction-related products such as insulated glass desiccants are affected by seasonal and weather-related factors including the consumption of beverages, the size and quality of food crops and the level of construction activity. These impacts are mitigated by the global scope of our business.

Raw Materials

The principal raw materials for Grace Davison products include caustic soda, alumina, rare earths, nickel, aluminum, cobalt, kaolin, molybdenum, sodium aluminate, sodium silicate, resins, rubber and latexes (including certain food-grade raw materials). Multiple suppliers are generally available for each of these materials; however some of our raw materials may be provided by single sources of supply. We seek to mitigate the risk of using single source suppliers by identifying and qualifying alternative suppliers or, for unique materials, by using alternative formulations from other suppliers or by passing price increases on to customers. In some instances, we produce our own raw materials and intermediates.

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Prices for many of our raw materials, including metals and petroleum-based specialty and commodity materials such as resins and solvents, have been volatile in recent years. In response to increases in raw material costs, we generally take actions to mitigate the effect of higher costs. In particular, during 2010, the People's Republic of China reduced its quotas on exports of the rare earths that we use in the manufacture of FCC catalysts, which significantly increased global prices. In response, we are implementing surcharges on certain FCC catalysts and we are taking other actions to reduce the impact of these higher costs on us and our customers. As in many chemical businesses, we consume significant quantities of natural gas in the production of Grace Davison products. World events and other economic factors have caused volatility in the price of natural gas. Increases or decreases in the cost of natural gas and raw materials can have a significant impact on our operating margins. Since we manufacture a substantial portion of our packaging products in emerging economies using raw materials from suppliers in the U.S., Europe and other advanced economies, changes in the values of the currencies of these emerging economies versus the U.S. dollar and the euro may adversely affect our raw material costs and the prices we may charge for our products.

Grace Construction Products Operating Segment

Grace Construction Products, or GCP, produces and sells specialty construction chemicals and specialty building materials. GCP manages its business under a geographic organizational structure that focuses on the following regions:

GCP Americas includes products sold to customers in North, Central and South America;

GCP Europe includes products sold to customers in Eastern and Western Europe, the Middle East, Africa and India; and

GCP Asia Pacific includes products sold to customers in Asia (excluding India), Australia and New Zealand.

The following table sets forth GCP sales by region as a percentage of GCP total revenue.

	2010		2009		2008	
	Sales	% of GCP Revenue	Sales	% of GCP Revenue	Sales	% of GCP Revenue
	(In millions)					
GCP Americas	\$ 448.3	51.3%	\$ 458.4	51.5%	\$ 595.0	51.8%
GCP Europe*	265.5	30.4%	296.6	33.3%	407.1	35.5%
GCP Asia Pacific	159.5	18.3%	134.6	15.2%	146.3	12.7%
Total GCP Revenue	\$ 873.3	100.0%	\$ 889.6	100.0%	\$ 1,148.4	100.0%

*

Includes the Middle East, Africa and India.

The following table sets forth GCP sales of similar products as a percentage of Grace total revenue.

	2010		2009		2008	
	Sales	% of Grace Revenue	Sales	% of Grace Revenue	Sales	% of Grace Revenue
	(In millions)					
Specialty Construction Chemicals	\$ 586.8	21.9%	\$ 578.1	20.5%	\$ 741.3	22.4%
Specialty Building Materials	286.5	10.7%	311.5	11.0%	407.1	12.3%

Total GCP Revenue	\$ 873.3	32.6%	\$ 889.6	31.5%	\$ 1,148.4	34.7%
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We are a supplier to the nonresidential (commercial and infrastructure) construction industry, and to a lesser extent, the residential construction and repair and restoration industries. The following table shows our principal specialty construction chemicals and specialty building materials products:

Products	Uses	Customers	Key Brands
Concrete admixtures	Concrete admixtures and polymeric fibers are used to reduce the production and in-place costs of concrete, increase the performance of concrete and improve the life cycle cost of the structure.	Ready-mix and precast concrete producers, engineers and specifiers	ADVA®, STRUX®, PolarSet®, Eclipse®
Additives for cement processing	Cement additives added to the grinding stage of the cement manufacturing process improve the energy efficiency of the plant and enhance the performance of the finished cement. Chromium reducing additives help cement manufacturers in Europe meet environmental regulations.	Cement manufacturers	CBA®, Synchro®, HEA2®, TDA®
Products for architectural concrete	Products for architectural concrete include surface retarders, coatings, pigments and release agents used by concrete producers and contractors to enhance the surface appearance and aesthetics of concrete.	Precast concrete producers and architects	Pieri®
Admixtures for masonry concrete	Products for masonry concrete are used by block and paver producers for process efficiency and to improve the appearance, durability and water resistance of finished concrete masonry units.	Masonry block manufacturers	Dry-Block®, Optec®, Quantec®
Process control solutions for ready mix concrete	Electro-mechanical devices, sensors and other technologies that assist concrete producers in controlling product quality and production costs	Ready mix concrete manufacturers	Verifi®
Specialty vermiculite products	Specialty vermiculite products are used in a wide range of applications making use of vermiculite's insulating properties and its ability to absorb nutrients, primarily in the horticultural, construction, and automotive industries.	Manufacturers of a variety of products, including potting soils, animal feeds, brakes, clutches and fire-rated products	MicroLite®, Verxite , FRSV

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Products	Uses	Customers	Key Brands
Structural waterproofing, vapor and air barrier systems	Structural waterproofing and air barrier systems prevent water, vapor and/or air infiltration in commercial structures. Products include self-adhered sheet and liquid membranes, joint sealing materials, drainage composites and waterstops.	Architects and structural engineers; specialty waterproofing and general contractors; specialty waterproofing distributors	Bituthene®, Procor®, Preprufe®, Perm-A-Barrier®, Adprufe®
Residential building materials	Specialty roofing membranes and flexible flashings for windows, doors, decks and detail areas include fully- adhered roofing underlayments, synthetic underlayments and self-adhered flashing.	Roofing contractors, home builders and remodelers; specialty roofing distributors, lumberyards and home centers; homeowners; architects and specifiers	Ice & Water Shield®, Tri-Flex®, Bondera®, Vycor®
Fire protection	Fire protection products are spray-applied to the structural steel frame, encasing and insulating the steel and protecting the building in the event of fire.	Local contractors and specialty subcontractors and applicators; building materials distributors; industrial manufacturers; architects and structural engineers	Monokote®

In view of this diversity of customers and customer requirements, and because specialty construction chemicals and specialty building materials require intensive sales and customer service efforts, we maintain a direct sales and technical support team with sales personnel based in more than 38 countries worldwide. This sales and support team sells products under global contracts, under U.S. or regional contracts, and on a job-by-job basis. We also use distributors in both U.S. and non-U.S. markets. We compete globally with several large construction materials suppliers, and regionally and locally with numerous smaller competitors. In recent years, the cement and concrete industry has experienced some consolidation, thereby increasing the importance of serving well our global customers. For some customer groups, such as producers and contractors, operational efficiency and total applied cost are key factors in making purchasing decisions, while for others, such as architects and engineers, product performance and design versatility are more important.

Competition for our construction products is based on product performance, technical support and service, brand name recognition in the construction industry and price. Our major global specialty construction chemicals competitors are BASF and Sika.

We seek to improve our products, adapt them for new applications and add new products through our growth and innovation processes that focus on understanding the needs of our customers, key performance indicators and research and development. We also seek to extend our product portfolio and geographic reach through acquisitions.

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In addition to new product introductions, product enhancements and acquisitions, we look for growth opportunities in emerging economies where increasing construction activity, improvement in building codes, and sophistication of construction practices can accelerate demand for our construction products. We continue to expand our commercial and manufacturing capabilities in these geographic areas.

The key raw materials used in our specialty construction products are obtained from a variety of suppliers, including commodity chemical producers, petroleum companies and paper manufacturers. The majority of our raw materials are olefins and organic chemicals. We also make significant purchases of inorganic materials such as gypsum, as well as specialty materials including specialty films, papers, membranes and fibers. In most instances, these materials are available from multiple sources. Global supply and demand factors, changes in currency valuations and petroleum prices significantly impacted the price and availability of key raw materials in recent years.

The construction business is cyclical in response to economic conditions and construction demand. The construction business is also seasonal and dependent on favorable weather conditions, with a decrease in construction activity during the winter months. Demand for our specialty construction products is primarily driven by global non-residential construction activity and U.S. residential construction activity. We seek to increase profitability and minimize the impact of cyclical downturns in regional economies by introducing technically advanced high-performance products and expanding geographically. Although these strategies have been successful in reducing the impact of cyclicity, a decline in U.S. and European construction activity in 2007 through 2010 has had a negative impact on our sales in North America and Western Europe.

FINANCIAL INFORMATION ABOUT INDUSTRY SEGMENTS AND GEOGRAPHIC AREAS

Disclosure of financial information about industry segments and geographic areas for 2010, 2009 and 2008 is provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 22 (Operating Segment Information) to the Consolidated Financial Statements which disclosure is incorporated herein by reference. Disclosure of risks attendant to our foreign operations is provided in this Report in Item 1A (Risk Factors).

INTELLECTUAL PROPERTY; RESEARCH ACTIVITIES

Competition in the specialty chemicals and specialty materials industry is often based on technological superiority and innovation. Our ability to maintain our margins and effectively compete with other suppliers depends on our ability to introduce new products based on innovative technology, as well as our ability to obtain patent or other intellectual property protection. Our research and development programs emphasize development of new products and processes, improvement of existing products and processes and application of existing products and processes to new industries and uses. We conduct research in all regions, with North America and Europe accounting for the most activity.

We routinely file applications to obtain world-wide patents to protect our investments in innovation, research, and product development. Numerous patents and patent applications protect our products, formulations, manufacturing processes, equipment, and improvements. We also benefit from the use of trade secret information, including know-how and other proprietary information relating to many of our products and processing technologies. There can be no assurance, however, that our patents, patent applications and precautions to protect trade secrets and know-how will provide sufficient protection for our intellectual property. In addition, other companies may independently develop systems or processes that could circumvent our patents or may acquire patent rights applicable to our business.

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Research and development expenses were approximately \$60 million, \$70 million and \$83 million in 2010, 2009 and 2008, respectively. Research and development expenses, excluding ART, were approximately \$60 million, \$60 million and \$73 million in 2010, 2009 and 2008, respectively. These amounts include depreciation and amortization expenses related to research and development and expenses incurred in funding external research projects. The amount of research and development expenses relating to government- and customer-sponsored projects (rather than projects that we sponsor) was not material during these periods.

ENVIRONMENT, HEALTH AND SAFETY MATTERS

We are subject, along with other manufacturers of specialty chemicals, to stringent regulations under numerous U.S. federal, state and local and foreign environment, health and safety laws and regulations relating to the generation, storage, handling, discharge, disposition and stewardship of hazardous wastes and other materials. Environmental laws require that certain responsible parties, as defined in the relevant statute, fund remediation actions regardless of legality of original disposal or ownership of a disposal site. We are involved in remediation actions to address hazardous wastes or other materials as required by U.S. federal, state and local and foreign laws. During the Chapter 11 proceeding, we generally are not participating in the funding of investigation and remediation at sites that we do not own. Our ultimate liability with respect to many of these sites will be determined as part of the Chapter 11 proceeding.

We have expended substantial funds to comply with environmental laws and regulations and expect to continue to do so in the future. The following table sets forth our expenditures in the past three years, and our estimated expenditures in 2011 and 2012, for (i) the operation and maintenance of manufacturing facilities and the disposal of wastes; (ii) capital expenditures for environmental control facilities; and (iii) site remediation:

Year	Operation of Facilities and		
	Waste Disposal	Capital Expenditures (In millions)	Site Remediation
2008	\$ 51	\$ 5	\$ 257(a)
2009	47	7	8
2010	48	7	8
2011	52	6	15(b)
2012	54	4	8(b)

(a) Includes \$252 million payment to the U.S. Government to satisfy all past and future response costs related to the Libby, Montana Superfund Site (excluding the Grace-owned Libby vermiculite mine).

(b) For 2011 and 2012, amounts are current estimates of ongoing site remediation costs and exclude payments of claims in our Chapter 11 proceeding.

Additional information about our environmental remediation activities is provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 13 (Commitments and Contingent Liabilities) to the Consolidated Financial Statements.

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We continuously seek to improve our environmental, health and safety performance. To the extent applicable, we extend the basic elements of the American Chemistry Council's Responsible Care® program to all our locations worldwide, embracing specific performance objectives in the key areas of management systems, product stewardship, employee health and safety, community awareness and emergency response, distribution, process safety and pollution prevention. We have implemented key elements of the new Responsible Care® Security Code for our operations and systems. We have completed a review of our existing security (including cyber-security) vulnerability and have taken actions to enhance our security systems and protect our assets. We have undertaken certain activities to comply with the Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards, including identifying facilities subject to the standards, conducting security vulnerability assessments and developing site security plans, as necessary.

EMPLOYEE RELATIONS

As of December 31, 2010, we employed approximately 5,970 persons, of whom approximately 2,620 were employed in the United States. Of our total employees, approximately 3,690 work in Grace Davison facilities, approximately 1,570 work in Grace Construction Products facilities, and approximately 710 are dedicated to corporate activities and/or are shared through globally managed professional groups such as finance, legal services, human resources, information technology, communications, supply chain and environment, health and safety.

Approximately 710 of our manufacturing employees in the United States are represented for collective bargaining purposes by nine different local collective bargaining groups. We have operated without a labor work stoppage for more than 10 years.

We have works councils representing the majority of our European sites serving approximately 1,540 employees.

RISK MANAGEMENT

We have programs in place to address the following significant risks to Grace:

Disasters We have disaster recovery plans in effect at key sites, and we have built a certain amount of redundancy into our production plants where feasible. We also have a formalized risk management program, which includes several types and layers of insurance. We are advised by risk management professionals and brokers who are familiar with recent trends in the insurance markets worldwide. The level of insurance carried, and other related aspects such as deductibles, self-insurance levels and policy terms, are monitored by management on a regular basis.

Environmental We are committed to the health and safety of all employees and to protecting the environment from damage through the use or production of our products. Our Environment, Health and Safety (EH&S) organization is global in scope and is charged with assuring that we live up to our commitments in this important area. The group performs EH&S audits of our facilities and regularly monitors local laws and regulations. Where appropriate, we use outside consultants and experts to augment our in-house staff. We continue to implement our EH&S management system in our facilities worldwide. Our EH&S management system is designed to enable us to apply "best practices" and "continual improvement" principles across our business.

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Ethics and Fraud We insist that our employees maintain the highest standards of ethical behavior. We have preventative and investigatory programs in place to maintain these standards, as follows:

We have established online ethics and compliance training programs in several languages.

All U.S. salaried employees and many employees outside the U.S. must sign an annual ethics statement in which they renew their commitment to operate ethically and according to the Grace code of conduct. They must also report any actual or potential conflicts of interest for evaluation by management and, if necessary, remediation.

We have an anonymous third party toll-free telephone line to report fraudulent or unethical behavior. Reports of the calls are relayed to our Chief Ethics Officer, General Counsel and Chief Human Resources Officer. The direct line is available to all employees worldwide where local law allows such a facility. Any allegation of fraud is required to be reported to the Audit Committee of the Board of Directors.

Our Internal Audit Department is independent of management and reports functionally to the Chairman of the Audit Committee of the Board of Directors. The department conducts investigations in collaboration with the Chief Ethics Officer when alleged frauds have accounting, financial reporting or fiscal aspects.

We provide training to personnel in key positions covering topics such as the U.S. Foreign Corrupt Practices Act, competition law, the Sarbanes Oxley Act of 2002, and other laws and regulations relating to ethical or legal matters.

AVAILABILITY OF REPORTS AND OTHER DOCUMENTS

We maintain an Internet website at www.grace.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available, free of charge, on our website as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the Securities and Exchange Commission, or SEC. These reports may be accessed through our website's investor information page.

In addition, the charters for the Audit, Compensation, Nominating and Governance, and Corporate Responsibility Committees of our Board of Directors, our corporate governance guidelines and code of ethics are available, free of charge, on our website at www.grace.com/About/Leadership/Governance/. Printed copies of the charters, governance guidelines and code of ethics may be obtained free of charge by contacting Grace Shareholder Services at 410-531-4167.

The information on our website is not, and shall not be deemed to be, a part of this report or incorporated into any other filings we make with the SEC.

Our Chief Executive Officer and Chief Financial Officer have submitted certifications to the SEC pursuant to the Sarbanes Oxley Act of 2002 as exhibits to this Report.

EXECUTIVE OFFICERS

See Part III, Item 10 of this Report for information about our Executive Officers.

Item 1A. RISK FACTORS

This Report, including the Financial Supplement, contains, and our other public communications may contain, projections or other "forward-looking" information, that is, information related to future,

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not past, events. Such information generally includes the words "believes," "plans," "intends," "targets," "will," "expects," "anticipates," or similar expressions and includes all statements regarding our Chapter 11 proceeding, expected financial position, results of operations, cash flows, financing plans, business strategy, budgets, capital and other expenditures, competitive positions, growth opportunities for existing products, benefits from new technology and cost reduction initiatives, plans and objectives of management and markets for securities. For these statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. Like other businesses, we are subject to risks and uncertainties that could cause our actual results to differ materially from our projections or that could cause other forward-looking information to prove incorrect. Factors that could cause actual events to materially differ from those contained in the forward-looking statements include those factors set forth below and elsewhere in this Annual Report on Form 10-K. Further, our reported results should not be considered as an indication of our future performance. Readers are cautioned not to place undue reliance on our projections and forward-looking information, which speak only as of the date thereof. We undertake no obligation to publicly release any revisions to the projections and forward-looking information contained in this document, or to update them to reflect events or circumstances occurring after the date of this document.

In addition to general economic, business and market conditions, we are subject to other risks and uncertainties, including, without limitation, the following:

COMPANY RISKS

Our proposed joint plan of reorganization, if it becomes effective, may substantially impact the value of currently outstanding shares of Grace common stock.

On January 31, 2011, the bankruptcy court issued an order confirming the Joint Plan. The Joint Plan is designed to address all pending and future asbestos-related claims and all other pre-petition claims as outlined therein. The Joint Plan provides for the issuance to the asbestos personal injury trust of a warrant to purchase 10 million shares of Grace common stock at a price of \$17 per share. If the Joint Plan becomes effective and this warrant is exercised, it will dilute the ownership interests of holders of currently outstanding Grace common stock and may adversely affect the value of such common stock.

If our proposed joint plan of reorganization does not become effective, the outcome of our Chapter 11 cases could result in the substantial dilution or cancellation of Grace's currently outstanding common stock.

Certain parties-in-interest in our Chapter 11 case have objected to several provisions of the Joint Plan so it is possible that the confirmation order may not be affirmed by the District Court or may be further appealed. Further, the effectiveness of the Joint Plan is subject to the fulfillment of numerous conditions, which may not ultimately be fulfilled. If the Joint Plan does not become effective, the outcome of our Chapter 11 cases would depend primarily upon the resolution of our asbestos-related and other contingent liabilities. We would likely return to the bankruptcy court estimation trial that was suspended in April 2008. We expect that the estimate resulting from this process would form the basis for a plan of reorganization that would provide for the funding of one or more trusts to which all pending and future asbestos-related claims would be channeled. If the amount of our asbestos-related liabilities, as determined through estimation or otherwise, and other liabilities exceeded the assets available for funding, then we likely would issue shares of Grace common stock to satisfy such liabilities under such plan of reorganization resulting in substantial dilution of the interests of current Grace shareholders. Alternatively, such plan of reorganization might provide for the cancellation of the interests of current Grace shareholders. Because of this risk

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of substantial dilution or cancellation, the value of Grace common stock is highly speculative and any investment in Grace common stock poses a high degree of risk.

Appeals of the order confirming the Joint Plan could materially affect the timing and terms of our emergence from bankruptcy.

Matters that may be appealed under the bankruptcy court order confirming the Joint Plan include: whether certain creditors are entitled to interest at rates higher than provided for in the Joint Plan; whether the Joint Plan impairs insurers' contractual rights; whether the Joint Plan discriminates against Libby, Montana personal injury claimants; and the classification and treatment of claims under the Joint Plan. Such appeals may take a significant period of time to resolve and could delay the effectiveness of the Joint Plan. In addition, if such appeals are resolved adversely to Grace and the other Joint Plan proponents by the District Court or a higher appellate court, the Joint Plan may not become effective, which could have a material effect on the terms and timing of Grace's emergence from Chapter 11.

The bankruptcy process may disrupt our business.

We have attempted to minimize the adverse effect of our Chapter 11 reorganization on our relationships with our employees, suppliers, customers and other parties. Nonetheless, our relationships with our customers, suppliers and employees may be adversely impacted and our operations could be materially and adversely affected. In addition, the continuation of our reorganization could negatively affect our ability to attract new employees and retain existing high performing employees.

Chapter 11 limits the flexibility of our management team in running our business.

While we operate our businesses as debtor-in-possession under supervision by the bankruptcy court, we are required to obtain the approval of the bankruptcy court prior to engaging in activities or transactions outside the ordinary course of business. For example, our strategic plan includes the acquisition of businesses in the specialty chemicals and specialty building materials industries. Such acquisitions generally require bankruptcy court approval if made by the company or its U.S. subsidiaries and affiliates that are debtors in the Chapter 11 cases. Bankruptcy court approval of non-ordinary course activities entails preparation and filing of appropriate motions with the bankruptcy court, negotiation with the various creditors' committees and other parties in interest and one or more hearings. The creditors' and shareholders committees and other parties-in-interest may be heard at any bankruptcy court hearing and may raise objections with respect to these motions. This process delays major transactions and limits our ability to respond quickly to opportunities and events in the marketplace. Furthermore, in the event the bankruptcy court does not approve a proposed activity or transaction, we would be prevented from engaging in activities and transactions that we believe are beneficial to Grace.

Our financial statements do not reflect the terms of the proposed Joint Plan.

Our financial statements include estimates of asbestos-related liabilities that are based on the conditions precedent to the amended plan of reorganization that we filed in 2005, the Prior Plan, rather than the Joint Plan. The Joint Plan may result in substantially different amounts for the asbestos-related liabilities in our financial statements. When we adjust our financial statements based on the Joint Plan or another plan that is filed and/or confirmed, such adjustments could be material to our consolidated financial position and results of operations.

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The proforma and prospective financial information that we filed with the bankruptcy court as an exhibit to the Joint Plan has not been and may not be fully updated to reflect events that occur after that filing and is subject to numerous assumptions.

We provided proforma and prospective financial information in the exhibits to the Joint Plan filed with the bankruptcy court in compliance with the requirements of the U.S. Bankruptcy Code. That information is not included in or incorporated into this Report. Though we have and may continue from time to time to update some of the information set forth in the proforma and prospective financial information to reflect events that occur after the filing of the Joint Plan with the bankruptcy court, we would not expect to fully update all such information unless required to do so by the U.S. Bankruptcy Code or the bankruptcy court. Further, this information is prepared in a format that may not be comparable to information in our financial statements included in this Report or other Reports filed with the SEC and is subject to numerous assumptions that may not be correct. As a result, investors in Grace common stock should not rely upon the proforma and prospective financial information filed with the bankruptcy court in connection with the Joint Plan or otherwise made available.

We may not be able to collect all asbestos-related insurance payments that may be due to us.

We have insurance coverage for a portion of the asbestos-related claims against us. We estimate that, assuming an ultimate payout of asbestos-related claims equal to the \$1,700 million of asbestos-related liabilities recorded on our balance sheet, our insurance policies should provide approximately \$500 million of insurance recovery. Under the Joint Plan, these insurance policies would be assigned to the asbestos personal injury trust established under the Joint Plan. However, if the Joint Plan does not become effective, these policies would remain with us unless assigned to creditors under the terms of another plan of reorganization. The estimated recovery of \$500 million pertains only to insurance carriers with which we have asbestos settlement agreements, and/or which are currently solvent and we cannot be sure that all these amounts will be collected. In addition, the timing and amount of future payments depends on the continued solvency of the insurers and the resolution of disputes regarding coverage as well as the nature and timing of actual claims paid. If the Joint Plan does not become effective, the receipt of timely and complete payments from the insurers would be important to the success of our reorganization.

We are subject to environmental clean-up fines, penalties and damage claims that have been and continue to be costly.

Grace is subject to lawsuits and regulatory actions, in connection with current and former operations (including divested businesses), for breaches of environmental laws that seek clean-up or other remedies. Grace is also subject to lawsuits and investigations by public and private parties under various environmental laws in connection with our current and former operations in various states, including with respect to off-site disposal at facilities where Grace has been identified as a potentially responsible party under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, commonly referred to as CERCLA.

We have established accounting accruals for all environmental matters for which sufficient information is available. As we receive new information, our estimated liability may change materially. We do not have sufficient information to accrue for all of Grace's environmental risks, and we cannot be sure that our actual costs will be equal to or less than our current estimates and accruals. Furthermore, it is reasonably possible that costs associated with those environmental matters for which we have established accruals may exceed our current accruals by material amounts. Some or all of our liability in connection with alleged violations of environmental laws may not be discharged upon confirmation of a plan of reorganization.

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We are subject to liabilities with respect to businesses that we have divested in the past.

Over the years, particularly during the 1980s and 1990s, we divested a substantial number of businesses that were not then consistent with our business strategy. With respect to many of these former businesses, we have contractually agreed to indemnify the buyer against liabilities arising prior to the closing of the transaction, including environmental liabilities. In many cases, we have also retained pension liabilities for the current and former employees of these businesses. These obligations would not be discharged under the Joint Plan. We have recorded liabilities with respect to indemnification obligations that we believe are probable and estimable and retained pension liabilities. As we receive additional information or new claims, our recorded liabilities may change materially.

We have unfunded and underfunded pension plan liabilities. We will likely require current and future operating cash flow to fund the shortfall. We have no assurance that we will generate sufficient cash flow to satisfy these obligations.

We maintain U.S. and non-U.S. defined benefit pension plans covering employees who meet age and service requirements. Our net pension liability and cost is materially affected by the discount rate used to measure pension obligations, the longevity and actuarial profile of our workforce, the level of plan assets available to fund those obligations and the actual and expected long-term rate of return on plan assets. Significant changes in investment performance or a change in the portfolio mix of invested assets can result in corresponding increases and decreases in the valuation of plan assets, particularly equity securities, or in a change in the expected rate of return on plan assets. Assets available to fund the pension benefit obligation of the U.S. advance-funded pension plans at December 31, 2010 were approximately \$719 million, or approximately \$367 million less than the measured pension benefit obligation. In addition, any changes in the discount rate could result in a significant increase or decrease in the valuation of pension obligations, affecting the reported funded status of our pension plans as well as the net periodic pension cost in the following years. Similarly, changes in the expected return on plan assets can result in significant changes in the net periodic pension cost in the following years.

The global scope of our operations subjects us to the risks of doing business in foreign countries, which could adversely affect our business, financial condition and results of operations.

We conduct a substantial portion of our business outside of the United States, with approximately 71% of our 2010 sales to non-U.S. customers. We currently have many production facilities, research and development facilities and administrative and sales offices located outside North America, including facilities and offices located in Europe, the Middle East, Africa, Asia and Latin America. We expect non-U.S. sales to continue to represent a significant portion of our revenue. Accordingly, our business is subject to risks related to the differing legal, political, social and regulatory requirements and economic conditions of many jurisdictions. Risks inherent in non-U.S. operations include the following:

agreements may be more difficult to enforce and receivables more difficult to collect;

foreign countries may impose additional withholding taxes or adopt other restrictions on foreign trade or investment, including currency exchange controls;

we may have difficulty transferring our profits or capital from foreign operations to other countries where such funds could be more profitably deployed;

foreign governments may nationalize private enterprises;

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we may experience unexpected adverse changes in export duties, quotas and tariffs and difficulties in obtaining export licenses;

intellectual property rights may be more difficult to enforce;

our business and profitability in a particular country could be affected by political or economic repercussions on a domestic, country specific or global level from terrorist activities and the response to such activities;

we may be affected by unexpected adverse changes in foreign laws or regulatory requirements; and

unanticipated events, such as geopolitical changes, could adversely affect these operations.

Our success as a global business will depend, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions by developing, implementing and maintaining policies and strategies that are effective in each location where we do business.

We are exposed to currency exchange rate changes that impact our profitability.

We are exposed to currency exchange rate risk through our U.S. and non-U.S. operations. Fluctuations in currencies of other countries, especially the euro, may materially affect our operating results. For example, changes in currency exchange rates may affect the relative prices at which we and our competitors sell products in the same region and the cost of materials used in our operations. A substantial portion of our net sales and assets are denominated in currencies other than the U.S. dollar. When the U.S. dollar strengthens against non-U.S. currencies, at a constant level of business, our reported non-U.S. sales, earnings, assets and liabilities are reduced because the non-U.S. currencies translate into fewer U.S. dollars.

We incur a currency transaction risk whenever one of our operating subsidiaries enters into either a purchase or a sales transaction using a currency different from the operating subsidiary's functional currency. Given the volatility of exchange rates, we may not be able to manage our currency transaction risks effectively, or volatility in currency exchange rates may expose our financial condition or results of operations to a significant additional risk.

Our ability to use tax deductions to reduce future tax payments may be limited if there is a change in ownership of Grace or if Grace does not generate sufficient U.S. taxable income.

Our ability to use future tax deductions, including net operating losses and deductions for the payments contemplated in the Joint Plan (including the deferred payments), may be limited by Section 382 of the Internal Revenue Code of 1986, as amended, if we undergo an ownership change as a result of future changes in the ownership of outstanding Grace common stock. In addition, our ability to use future tax deductions is dependent on our ability to generate sufficient future taxable income in the U.S. In order to preserve these future tax deductions, the bankruptcy court has approved trading restrictions on Grace common stock until the effective date of a plan of reorganization. These restrictions prohibit (without the consent of Grace) a person from acquiring more than 4.75% of the outstanding Grace common stock or, for any person already holding more than 4.75%, from increasing such person's holdings. The Joint Plan provides that under certain circumstances, the Board of Directors would have the authority to impose restrictions on the transfer of Grace common stock with respect to certain 5% shareholders in order to preserve these future tax deductions.

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We may be subject to claims of infringement of the intellectual property rights of others, which could hurt our business.

From time to time, we face infringement claims from our competitors or others alleging that our processes or products infringe on their proprietary technologies. Any claims that our products or processes infringe the intellectual property rights of others, regardless of the merit or resolution of the claims, could cause us to incur significant costs in responding to, defending and resolving the claims, and may divert the efforts and attention of our management and technical personnel from our business. If we are found to be infringing on the proprietary technology of others, we may be liable for damages, and we may be required to change our processes, redesign our products, pay others to use the technology or stop using the technology or producing the infringing product. Even if we ultimately prevail, the existence of the lawsuit could prompt our customers to switch to products that are not the subject of infringement suits.

While Grace is in bankruptcy, we are not permitted to pay dividends on Grace common stock and following emergence from bankruptcy, we are not likely to pay dividends for the foreseeable future.

We are not permitted to pay dividends on Grace common stock while we are in bankruptcy. Following emergence from bankruptcy, we may be subject to covenants in connection with our financing arrangements that limit or prevent us from paying dividends. Furthermore, it is likely that following our emergence from bankruptcy, our board of directors will decide to prioritize the investment of our cash flow in our businesses. For the foreseeable future, investors in Grace common stock, in all likelihood, will obtain an economic benefit from their shares only by selling them.

INDUSTRY RISKS

The length and depth of product and industry business cycles in our segments may result in periods of reduced sales and operating margins, and operating losses.

Our operating segments are sensitive to the cyclical nature of the industries they serve. Our hydroprocessing catalyst product line and other hydroprocessing catalyst suppliers have experienced alternating periods of inadequate capacity and excess capacity for their products. Periods of inadequate capacity, including some due to raw material shortages, have usually resulted in increased selling prices and operating margins. This has often been followed by periods of capacity additions, which have resulted in declining capacity utilization rates, selling prices and operating margins. Our construction business is cyclical in response to economic conditions and construction demand and is also seasonal and dependent on favorable weather conditions, with a decrease in construction activity during the winter months. The U.S. residential and global commercial construction industries have experienced a significant downturn in recent years. As a result, we have experienced reduced demand for our specialty building materials and a continuation of this downturn could result in a further reduction of sales and operating margins in our Grace Construction Products segment.

Prices for certain raw materials and energy are volatile; we may not be able to pass through increases in costs and expenses for raw materials and energy or maintain our current pricing levels, which may hurt our profitability.

We use metals, significant amounts of natural gas and petroleum-based materials, including both specialty and commodity materials such as resins and solvents, in the manufacture of our products. Prices for these materials have fluctuated significantly in recent years. In particular, during 2010, the People's Republic of China reduced its quotas on exports of rare earths. In response,

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market prices for rare earths have risen significantly. We use rare earths in the manufacture of our FCC catalysts and expect to incur higher costs on purchases of rare earth during 2011. To the extent raw material and energy prices increase and we are unable to pass through such price increases to our customers, our operating profit may decline.

A substantial portion of our raw materials are commodities whose prices fluctuate as market supply and demand fundamentals change.

We attempt to manage exposure to price volatility of major commodities through:

long-term supply contracts;

contracts with customers that permit adjustments for changes in prices of commodity-based materials and energy;

forward buying programs that layer in our expected requirements systematically over time; and

limited use of financial instruments.

Although we regularly assess our exposure to raw material price volatility, we cannot always predict the prospects of volatility and we cannot always cover the risk in a cost effective manner.

We have a policy of maintaining, when available, multiple sources of supply for raw materials. However, certain of our raw materials may be provided by single sources of supply. We may not be able to obtain sufficient raw materials due to unforeseen developments that would cause an interruption in supply. Even if we have multiple sources of supply for raw materials, these sources may not make up for the loss of a major supplier.

We spend large amounts of money for environmental compliance in connection with our current and former operations.

As a manufacturer of specialty chemicals and specialty materials, we are subject to stringent regulations under numerous U.S. federal, state, local and foreign environmental, health and safety laws and regulations relating to the generation, storage, handling, discharge, disposition and stewardship of hazardous wastes and other materials. We have expended substantial funds to comply with such laws and regulations and have established a policy to minimize our emissions to the environment. Nevertheless, legislative, regulatory and economic uncertainties (including existing and potential laws and regulations pertaining to climate change) make it difficult for us to project future spending for these purposes and if there is an acceleration in new regulatory requirements, we may be required to expend substantial additional funds to remain in compliance.

We work with dangerous materials that can injure our employees, damage our facilities and disrupt our operations.

Some of our operations involve the handling of hazardous materials that may pose the risk of fire, explosion, or the release of hazardous substances. Such events could result from terrorist attacks, natural disasters, or operational failures, and might cause injury or loss of life to our employees and others, environmental contamination, and property damage. These events might cause a temporary shutdown of an affected plant, or portion thereof, and we could be subject to penalties or claims as a result. A disruption of our operations caused by these or other events could have a material adverse effect on our results of operations.

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Some of our employees are unionized, represented by workers' councils or employed subject to local laws that are less favorable to employers than the laws in the United States.

As of December 31, 2010, we had approximately 5,970 global employees. Approximately 710 of our approximately 2,620 U.S. employees are unionized. In addition, a large number of our employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws in the United States. Such employment rights require us to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of our employees in Europe are represented by workers' councils that have co-determination rights on any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure our workforce. Collective bargaining agreements with unions representing employees at several of our facilities are scheduled to expire during 2012 and we expect that they will require renegotiation. A strike, work stoppage or slowdown by our employees or significant dispute with our employees, whether or not related to these negotiations, could result in a significant disruption of our operations or higher ongoing labor costs.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

We operate manufacturing plants and other facilities (including office, warehouse, labs and other service facilities) throughout the world. Some of these plants and facilities are shared by both of our operating segments. We own all of our major manufacturing plants. We consider our major operating properties to be in good operating condition and suitable for their current use. We believe that, after taking planned expansion into account, the productive capacity of our plants and other facilities is generally adequate for current operations and foreseeable growth.

Our Grace Davison operating segment operates 40 facilities in the following regions:

Region	Number of Facilities
North America	14
Europe Middle East Africa	12
Asia Pacific	12
Latin America	2

Our largest Grace Davison facilities are located in Baltimore, Maryland; Lake Charles, Louisiana; and Worms, Germany.

Our Grace Construction Products operating segment operates 59 facilities in the following regions:

Region	Number of Facilities
North America	22
Europe Middle East Africa	15
Asia Pacific	18
Latin America	4

Our largest GCP facilities are located in Cambridge, Massachusetts and Mount Pleasant, Tennessee. Because our GCP products generally have short shelf lives and must be delivered to numerous job sites, GCP requires a greater number of facilities to service our customers than Grace

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Davison. Also, these facilities are generally smaller and less capital intensive than our Grace Davison facilities. For information on our net properties and equipment by region and country, see disclosure set forth in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 22 (Operating Segment Information) to our Consolidated Financial Statements which disclosure is incorporated herein by reference.

Item 3. LEGAL PROCEEDINGS

CHAPTER 11 PROCEEDINGS

Disclosure provided in this Report in Item 1 (Business) under the caption "Chapter 11 Filing" and in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 1 (Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies), under the caption "Voluntary Bankruptcy Filing," Note 2 (Chapter 11 Information) and Note 3 (Asbestos-Related Litigation) to the Consolidated Financial Statements is incorporated herein by reference.

ASBESTOS LITIGATION

Disclosure provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information) and Note 3 (Asbestos-Related Litigation) to the Consolidated Financial Statements is incorporated herein by reference.

ENVIRONMENTAL INVESTIGATIONS AND CLAIMS

Disclosure provided in this Report in Item 1 (Business) under the caption "Environment, Health and Safety Matters" and Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 13 (Commitments and Contingent Liabilities), under the caption "Environmental Remediation," to the Consolidated Financial Statements is incorporated herein by reference.

LITIGATION RELATED TO FORMER PACKAGING AND MEDICAL CARE BUSINESSES

Disclosure provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information) to the Consolidated Financial Statements is incorporated herein by reference.

TAX CLAIMS

Disclosure provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 10 (Income Taxes) to the Consolidated Financial Statements is incorporated herein by reference.

OTHER CLAIMS RECEIVED PRIOR TO THE CHAPTER 11 BAR DATE

Disclosure provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information) under the caption "Plans of Reorganization" to the Consolidated Financial Statements is incorporated herein by reference.

Item 4. REMOVED AND RESERVED

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PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Except as provided below, the disclosure required by this Item appears in the Financial Supplement, under the heading "Selected Financial Data" opposite the caption "Other Statistics - Common shareholders of record," and in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement in Note 17 (Shareholders' Equity (Deficit)) and Note 25 (Quarterly Summary and Statistical Information (Unaudited)), opposite the caption "Market price of common stock," to the Consolidated Financial Statements and is incorporated herein by reference.

SHAREHOLDER RIGHTS AGREEMENT

On March 31, 1998, we paid a dividend of one Preferred Stock Purchase Right on each share of Grace common stock. Subject to our prior redemption for \$.01 per right, rights will become exercisable on the earlier of:

10 days after an acquiring person, comprised of an individual or group, has acquired beneficial ownership of 20% or more of the outstanding Grace common stock or

10 business days (or a later date fixed by the Board of Directors) after an acquiring person commences (or announces the intention to commence) a tender offer or exchange offer for beneficial ownership of 20% or more of the outstanding Grace common stock.

Until these events occur, the rights will automatically trade with the Grace common stock, and separate certificates for the rights will not be distributed. The rights do not have voting or dividend rights.

Generally, each right not owned by an acquiring person:

will initially entitle the holder to buy from Grace one hundredth of a share of the Grace Junior Participating Preferred Stock, at an exercise price of \$100, subject to adjustment;

will entitle such holder to receive upon exercise, in lieu of shares of Grace junior preferred stock, that number of shares of Grace common stock having a market value of two times the exercise price of the right; and

may be exchanged by Grace for one share of Grace common stock or one hundredth of a share of Grace junior preferred stock, subject to adjustment.

Generally, if there is an acquiring person and we are acquired, each right not owned by an acquiring person will entitle the holder to buy a number of shares of common stock of the acquiring company having a market value equal to twice the exercise price of the right.