

COMPANY PROFILE

Air Products and Chemicals, Inc.

REFERENCE CODE: B7C578DA-4C74-4C96-84F3-5C4D4D80A7A1

PUBLICATION DATE: 19 Jul 2018

www.marketline.com

COPYRIGHT MARKETLINE. THIS CONTENT IS A LICENSED PRODUCT AND IS NOT TO BE PHOTOCOPIED OR DISTRIBUTED

TABLE OF CONTENTS

Company Overview 3
Key Facts 3
SWOT Analysis 4

COMPANY OVERVIEW

Air Products and Chemicals, Inc. (Air Products) is a provider of industrial gases. The company's offerings include products, services, and solutions comprising atmospheric gases, process and specialty gases, electronics and performance materials, equipment, and related services. Air Products supplies argon, carbon dioxide, neon, krypton, xenon, carbon monoxide syngas, helium, hydrogen, nitrogen, oxygen, specialty gases, gas mixtures and welding gases, among others. It caters to energy, electronics, chemicals, metals, manufacturing, medical, transportation, food and beverage industries globally. The company has business presence across the Americas, Europe, the Middle East, Africa and Asia-Pacific. Air Products is headquartered in Allentown, Pennsylvania, the US.

The company reported revenues of (US Dollars) US\$8,187.6 million for the fiscal year ended September 2017 (FY2017), an increase of 9.1% over FY2016. In FY2017, the company's operating margin was 17.4%, compared to an operating margin of 20.3% in FY2016. In FY2017, the company recorded a net margin of 36.6%, compared to a net margin of 8.4% in FY2016.

KEY FACTS

Head Office	Air Products and Chemicals, Inc. 7201 Hamilton Blvd Pennsylvania 18195 1501 ALLENTOWN Pennsylvania ALLENTOWN Pennsylvania USA
Phone	1 610 4814911
Fax	1 610 4815900
Web Address	www.airproducts.com
Revenue / turnover (USD Mn)	8,187.6
Financial Year End	September
Employees	15,000
New York Stock Exchange Ticker	APD

SWOT ANALYSIS

Air Products and Chemicals (APD) is engaged in serving energy, electronics, chemicals, metals, and manufacturing customers globally with a unique portfolio of products, services, and solutions. It supplies a range of industrial gases to healthcare, technology, energy, and industrial markets worldwide. A strong portfolio of gases and chemicals increase the brand image of the company. An intense competition, however, might put pressure on the company's revenue and profit margin growth.

<p>Strength</p> <p>Strong portfolio of gases and chemicals Diversified geographic presence Enhanced R&D capabilities driving portfolio growth Strong revenue growth</p>	<p>Weakness</p> <p>Legal proceedings</p>
<p>Opportunity</p> <p>Strategic contracts and agreements Strategic Acquisitions Business expansion initiatives</p>	<p>Threat</p> <p>Energy price fluctuations and constraints in the availability of raw materials Intense competition Foreign currency fluctuations</p>

Strength

Strong portfolio of gases and chemicals

Air Products provides a range of products and services to its customers catering to a wide gamut of industries including metal, glass, chemical processing, energy production and refining, food processing, metallurgical industries, medical, and general manufacturing. The company's regional Industrial Gases segment produces atmospheric gases such as oxygen, nitrogen and argon; process gases such hydrogen, carbon monoxide, helium and syngas; and specialty gases and equipment for the production or processing of gases such as air separation units and non-cryogenic generators. Strong portfolio of gases and chemicals enables the company to establish its brand image and differentiate its product offerings from its competitors.

Diversified geographic presence

Air Products is geographically well diversified. The company, through its subsidiaries, affiliates, and less-than-controlling interests, conducts business in 50 countries outside the US. It operates its subsidiaries in Canada, 17 European countries (including the UK, the Netherlands, and Spain), 11 Asian countries (including China, Korea, and Taiwan), seven Latin American countries (including Chile and Brazil), two African countries, and one Middle Eastern country. The company also owns less-than-controlling interests in entities operating in Europe, Asia, Africa, the Middle East, and Latin America (including Italy, Germany,

China, India, Saudi Arabia, Singapore, Thailand, the UAE, South Africa, and Mexico). In FY2017, the US accounted for 40.4% of the company's total revenue, followed by China with 20.6%; Europe (including Middle East) with 15.2%; Asia (excluding China and India) with 9.2%; and other countries contributed to 14.7%. Hence, a diversified geographic presence offers Air Products more avenues for revenue growth. It also reduces the company's exposure to risks associated with a particular market (geo-political and socio-economic reasons) and facilitates a strong positive global image for the company.

Enhanced R&D capabilities driving portfolio growth

Air Products focuses its research and development (R&D) activities to develop new products and improve processes and equipment for the production and delivery of industrial gases and also look for new and improved applications for all such products. The company carries out its research based activities primarily from its laboratories in the US (Trexlerstown, Pennsylvania); Canada (Vancouver); the UK (Basingstoke and Carrington); Spain (Barcelona); and China (Shanghai). The Company also funds and cooperates in R&D programs conducted by a number of major universities and undertakes research work funded by others, principally the US government. Air Product's R&D expenditure for the review year was US\$57.8 million. As a result of increased investments in R&D activities, Air Products owned about 532 US patents and approximately 2,544 foreign patents in FY2017. Also, under the Materials Technologies segment, the company conducts R&D related activities at right locations worldwide, including: Pennsylvania, California and Wisconsin in the US, the Netherlands, China, Japan, and multiple sites in Germany. Hence, enhanced R&D capabilities of Air Products help in driving its portfolio growth.

Strong revenue growth

Air Products exhibited strong revenue during the review year. Revenue growth enables the company's ability to pursue its growth and expansion initiatives. In FY2017, the company generated revenues of US\$8,187.6 million as compared to US\$7,503.7 million in FY2016, with an annual growth of 9.1%. The increase in revenue was primarily due to higher volumes across the industrial gases businesses, including the Jazan project. Also, an underlying sales growth of 7% and higher energy and natural gas cost pass-through to customers of 3% had a positive impact on the company's revenues. The regional Industrial Gases, i.e. Americas, EMEA and Asia had positive growth in their respective regions from higher volumes.

Weakness

Legal proceedings

The company is subject to litigation and regulatory proceedings in the normal course of business and could become subject to additional claims in the future, some of which could be material. For instance, in September 2010, the Brazilian Administrative Council for Economic Defense (CADE) issued a decision against its Brazilian subsidiary, Air Products Brasil Ltda., and several other Brazilian industrial gas companies for alleged anticompetitive activities. CADE imposed a civil fine of R\$179.2 million on Air Products Brasil Ltda. This fine was based on a recommendation by a unit of the Brazilian Ministry of Justice, whose investigation began in 2003, alleging violation of competition laws with respect to the sale of industrial and medical gases. The fines are based on a percentage of the company's total revenue in

Brazil in 2003. In October 2010, the company denied the allegations and filed for an appeal to the Brazilian courts. In May 2014, the appeal was granted and the fine against Air Products Brasil was dismissed. CADE has appealed the Brazilian court ruling and the matter remains pending.

Air Products is a party to proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, the federal Superfund law); Resource Conservation and Recovery Act (RCRA); and similar state and foreign environmental laws relating to the designation of certain sites for investigation or remediation. There are about 32 sites on which a final settlement has not been reached where the company, along with others, has been designated a potentially responsible party by the Environmental Protection Agency or is otherwise engaged in investigation or remediation, including cleanup activity at certain of its current and former manufacturing sites. Any adverse ruling, settlement, or unfavorable development in the future could result in charges that could have a material adverse effect on the company's financial condition.

Opportunity

Strategic contracts and agreements

Air Products could benefit from new contracts and agreements. In February 2018, Air Products received a contract to supply industrial gases to Samsung Electronics' second semiconductor fab in Xi'an, Shaanxi Province, China. In January 2018, the company won a contract from Samsung Display to offer gaseous nitrogen and oxygen, and liquid argon to Samsung's Organic Light Emitting Diode manufacturing complex in Tangjeong, South Korea. In the same month, the company received a contract from TP JGC Coral France to supply medium and high purity nitrogen package for a floating liquefied natural gas facility in Indian Ocean, offshore Mozambique, Africa. Prior to this the company entered several agreements during the review year. For instance, in May 2017, the company signed a strategic cooperation agreement with China Petrochemical International (Chongqing) Co., Ltd. and EPEC to propel e-commerce business development on the EPEC.com portal. Under the agreement, the three parties will build long-term and strategic partnerships through communication and cooperation on procurement, sales, supply chain, financial services, international market expansion, and credit system construction. Further in March 2017, Air Products was awarded the long-term supply of approximately 30 million standard cubic feet per day of hydrogen by Marathon Petroleum Company LP for its Garyville, Louisiana refinery. This new supply will begin in November 2017, is in addition to volumes of hydrogen Air Products already provides Marathon Petroleum at its Garyville refinery. Such agreements help Air Products in increasing their operational base in the market.

Strategic Acquisitions

Air Products primarily focuses on in-organic growth initiatives to expand its business operations. In line with this, in February 2018, Air Products entered a definitive agreement to acquire ACP Europe SA, the largest independent carbon dioxide (CO₂) business in Europe. The acquisition will complement Air Products' European CO₂ capabilities in core geographies where the company already provides industrial gases. In January 2018, Air Products entered into an agreement with Royal Dutch Shell plc (Shell) to acquire its Coal Gasification Technology business and the patent portfolio of Liquids (Residue) Gasification. The acquisition could support Air Products' operations of Lu'An project in China, among others by backing the syngas supply operations. In November 2017, Air Products completed the

acquisition of a majority stake in United Industrial Gas Company L.L.C from Muscat Gases Company. Such acquisitions increase the reach of the company along with providing a source of additional revenues.

Business expansion initiatives

Air Products undertook expansion initiatives in FY2017 to further drive its business growth. For instance, in January 2018, the company entered into an agreement with Bharat Petroleum Corporation Limited to own, build and operate syngas production facility at BPCL Kochi Refinery in Kochi, India. The new plant could improve its ease of operations by supporting BPCL's new Propylene Derivatives Petrochemical Project (PDPP). In January 2017, the company announced plans to install a new liquefier at its air separation plant located in Middletown, Ohio, the US to increase liquid nitrogen (LIN) production to meet increasing customer product needs. The new liquefier is expected to be on-stream by October 2018. The investment could add hundreds of tons per day of LIN capacity, allowing Air Products to strengthen and grow its presence in a dynamic geography that has a strong pipeline of opportunities. In the same month, the company announced plans to increase nitrogen production to serve the growing demand of its existing customer in Pyeongtaek City, Gyeonggi Province, South Korea. The company is undertaking a multi-phase expansion project involving multiple ultra-high-purity nitrogen plants, hydrogen generators and a liquefier. The latest expansion represents Air Products's commitment to grow together with customers in the expanding region through continued investment. Such expansion initiatives could provide the company a stronger position to deliver safe and reliable industrial gas solutions in a cost-effective way.

Threat

Energy price fluctuations and constraints in the availability of raw materials

Energy, including electricity, natural gas, and diesel fuel for delivery trucks, is the largest cost component of Air Products' business. Fluctuations in energy prices could materially impact the company's revenue and earnings, because the company's industrial gas facilities use substantial amount of electricity. Hydrocarbons, including natural gas, are the primary feedstock for the production of hydrogen, carbon monoxide, and synthesis gas. Moreover, the electronics and performance materials divisions of the company uses a wide variety of raw materials, including alcohols, ethyleneamines, cyclohexylamine, acrylonitriles, and glycols. Shortages or price escalation in these materials could negatively impact the company's financial results. Further, a disruption in the supply of energy and raw materials, whether due to market conditions, legislative or regulatory actions, natural events, or other disruption, could prevent Air Products from meeting its contractual commitments.

Intense competition

Air Products faces intense competition from several large, global competitors and many smaller regional ones in most of its business segments. The merchant gases and tonnage gases segments compete with three global industrial gas companies, Air Liquide, Linde, and Praxair, as well as with several regional competitors in North America (including Airgas). The electronics and performance materials divisions' faces competition on a product-by-product basis against companies ranging from niche suppliers with a

single product to larger and more vertically integrated companies. The equipment and energy segment competes against many firms based primarily on technological performance, service, technical know-how, price, and performance guarantees. Intense competition might put pressure on Air Products's revenue and profit margin growth.

Foreign currency fluctuations

Air Products operates in in more than 50 countries worldwide and is exposed to fluctuations in foreign exchange rates. Such fluctuations in currency would negatively impact the overall financial health of the company. Air Products has market presence throughout the world holding assets and liabilities in foreign currencies. It has exchange rate exposure primarily in the US dollars and Euro. In FY2017, the company reported a gain of US\$4.3 million from foreign exchange translation adjustments as compared to a loss of US\$7.2 million in FY2016. To minimize risks from currency fluctuations, the company involves in foreign exchange hedging activities by entering into foreign exchange forward contracts. However, there may be no assurance that such hedging activities or measures may limit the impact of movements in exchange rates on the company's results of operations.

Copyright of Air Products & Chemicals, Inc. SWOT Analysis is the property of MarketLine, a Progressive Digital Media business and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.