

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) 27 April 2005

Air Products and Chemicals, Inc.
(Exact Name of Registrant as Specified in Charter)

Delaware	1-4534	23-1274455
-----	-----	-----
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)
7201 Hamilton Boulevard, Allentown, Pennsylvania		18195-1501
-----		-----
(Address of Principal Executive Offices)		(Zip Code)

(610) 481-4911

Registrant's telephone number, including area code

not applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to
simultaneously satisfy the filing obligation of the registrant under any of the
following provisions (See General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17
CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17
CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the
Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the
Exchange Act (17 CFR 240.13e-4(c))

Item 2.02. Results of Operations and Financial Condition.

On 27 April 2005, the company issued a press release announcing its earnings for the second quarter of fiscal year 2005. A copy of the press release is attached as Exhibit 99.1 to this Form 8-K.

Item 9.01. Financial Statements and Exhibits.

(c) Exhibits

99.1 The financial tables, including the Summary of Consolidated Financial Information, presented on pages 3 through 9 of the Press Release issued by the registrant on 27 April 2005, are incorporated herein by reference. With the exception of the portions specifically incorporated by reference, the Press Release is not deemed to be filed.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Air Products and Chemicals, Inc.
(Registrant)

Dated: 27 April 2005

By: /s/ Paul E. Huck

Paul E. Huck
Vice President and Chief Financial
Officer

[AIR PRODUCTS LOGO]

News Release

Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

AIR PRODUCTS REPORTS SECOND QUARTER EPS OF \$.75

Access the Q2 earnings teleconference scheduled for 11:00 a.m. Eastern Time (ET) on April 27 by calling (719) 457-2625 and entering passcode 3026254, or listen on the web: www.airproducts.com/Invest/financialnews/EarningsReleases.htm.

LEHIGH VALLEY, Pa. (April 27, 2005) - Air Products (NYSE:APD) today reported net income of \$175 million or diluted earnings per share (EPS) of \$.75 for its second fiscal quarter ended March 31, 2005. Net income increased 24 percent and diluted EPS was up 21 percent compared with the prior year.

Record quarter revenues of \$2,003 million were up eight percent over the prior year, driven mainly by higher volumes across the Gases segment and higher pricing in Chemicals. Operating income of \$252 million was up 20 percent from the prior year, principally driven by volume gains and lower costs from ongoing productivity projects.

John P. Jones, Air Products' chairman and chief executive officer, said, "This is the fifth consecutive quarter we improved our return on capital and posted a greater than 20 percent earnings per share increase. Strong volume gains in Gases and Equipment coupled with significant improvement in our Chemicals business produced those results. By loading our assets and delivering on productivity commitments, we increased our operating margin to 12.6 percent. We also generated strong cash flows, announced a \$500 million share repurchase program and increased our dividend for the 23rd consecutive year."

Gases segment sales of \$1,412 million increased 10 percent over the prior year. Increased volumes in North America and Asia base gases, refinery hydrogen, electronics and homecare contributed six percent of the growth, while favorable currency and homecare acquisitions contributed the remainder. Operating income of \$207 million increased nine percent over the prior year, driven by higher volumes.

Chemicals segment sales of \$499 million were up three percent versus the prior year on improved pricing to recover higher raw material and energy costs, offset by the impact of divestitures within the past year. Operating income of \$45 million increased 30 percent over the prior year on lower costs and improved pricing.

Equipment segment revenues of \$93 million rose four percent over the prior year, mainly on higher LNG sales. Operating income of \$8 million was significantly higher. In addition, the company recently announced two new orders for its proprietary AP-X(TM) LNG heat exchangers, bringing the year-to-date total to four.

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Looking forward, Mr. Jones said, "We still expect continued volume gains during our second half, particularly in our refinery hydrogen, equipment and homecare businesses, despite general concerns about slowing growth in manufacturing. We will continue to focus on productivity as well as pricing improvements to address increases in raw material and energy costs."

The company projects a full-year EPS range of \$3.00 to \$3.15 and a third fiscal quarter EPS range of \$.77 to \$.82.

Air Products (NYSE:APD) serves customers in technology, energy, healthcare and industrial markets worldwide with a unique portfolio of products, services and solutions, providing atmospheric gases, process and specialty gases, performance materials and chemical intermediates. Founded in 1940, Air Products has built leading positions in key growth markets such as semiconductor materials, refinery hydrogen, home healthcare services, natural gas liquefaction, and advanced coatings and adhesives. The company is recognized for its innovative culture, operational excellence and commitment to safety and the environment and is listed in the Dow Jones Sustainability and FTSE4Good Indices. The company has annual revenues of \$7.4 billion, operations in over 30 countries, and nearly 20,000 employees around the globe. For more information, visit www.airproducts.com.

NOTE: The forward-looking statements contained in this release are based on current expectations regarding important risk factors. Actual results may differ materially from those expressed. Factors that might cause forward-looking statements to differ materially from actual results include those specifically referenced as future events or outcomes that the company anticipates, as well as, among other things, overall economic and business conditions different than those currently anticipated and demand for Air Products' goods and services during that time; competitive factors in the industries in which it competes; interruption in ordinary sources of supply; the ability to recover unanticipated increased energy and raw material costs from customers; uninsured litigation judgments or settlements; spikes in the pricing of natural gas; changes in government regulations; consequences of acts of war or terrorism impacting the United States' and other markets; charges related to currently unplanned portfolio management and cost reduction actions; the success of implementing cost reduction programs; the timing, impact and other uncertainties of future acquisitions or divestitures; significant fluctuations in interest rates and foreign currencies from that currently anticipated; the impact of tax and other legislation and regulations in jurisdictions in which Air Products and its affiliates operate; the impact of new financial accounting standards, including the expensing of employee stock options; and the timing and rate at which tax credits can be utilized.

Please review the attached financial tables, including the Summary of Consolidated Financial Information:

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AIR PRODUCTS AND CHEMICALS, INC.
SUMMARY OF CONSOLIDATED FINANCIAL INFORMATION
(Unaudited)

(Millions of dollars, except for share data)

	Three Months Ended		Six Months Ended	
	31 March		31 March	
	2005	2004	2005	2004
	-----	-----	-----	-----
Sales	\$ 2,003.3	\$ 1,856.5	\$ 3,994.3	\$ 3,541.4
Net Income	\$ 175.3	\$ 141.2	\$ 342.1	\$ 273.0
Basic Earnings Per Share	\$.77	\$.63	\$ 1.51	\$ 1.23
Diluted Earnings Per Share	\$.75	\$.62	\$ 1.47	\$ 1.20
Capital Expenditures	----- \$ 227.1	----- \$ 198.2	----- \$ 493.9	----- \$ 379.3
Depreciation and Amortization	----- \$ 177.1	----- \$ 176.6	----- \$ 356.5	----- \$ 351.0

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
CONSOLIDATED INCOME STATEMENTS
(Unaudited)

(Millions of dollars, except for share data)

	Three Months Ended 31 March		Six Months Ended 31 March	
	2005 ----	2004 ----	2005 ----	2004 ----
SALES	\$ 2,003.3	\$ 1,856.5	\$ 3,994.3	\$ 3,541.4
COSTS AND EXPENSES				
Cost of sales	1,468.9	1,369.6	2,944.4	2,599.8
Selling and administrative	257.2	250.4	510.0	481.8
Research and development	33.1	32.0	66.2	62.0
Other (income) expense, net	(8.1)	(5.6)	(16.8)	(11.1)
	-----	-----	-----	-----
OPERATING INCOME	252.2	210.1	490.5	408.9
Equity affiliates' income	25.2	22.0	50.7	41.6
Interest expense	29.8	32.3	57.6	63.2
	-----	-----	-----	-----
INCOME BEFORE TAXES AND MINORITY INTEREST	247.6	199.8	483.6	387.3
Income tax provision	67.8	54.9	132.7	106.2
Minority interest (a)	4.5	3.7	8.8	8.1
	-----	-----	-----	-----
NET INCOME	\$ 175.3	\$ 141.2	\$ 342.1	\$ 273.0
	=====	=====	=====	=====
BASIC EARNINGS PER COMMON SHARE	\$.77	\$.63	\$ 1.51	\$ 1.23
	-----	-----	-----	-----
DILUTED EARNINGS PER COMMON SHARE	\$.75	\$.62	\$ 1.47	\$ 1.20
	-----	-----	-----	-----
WEIGHTED AVERAGE OF COMMON SHARES OUTSTANDING (in millions)	228.1	223.7	227.3	222.8
	-----	-----	-----	-----
WEIGHTED AVERAGE OF COMMON SHARES OUTSTANDING ASSUMING DILUTION (in millions)	234.3	228.8	233.2	227.9
	-----	-----	-----	-----
DIVIDENDS DECLARED PER COMMON SHARE - Cash	\$.32	\$.23	\$.61	\$.46
	-----	-----	-----	-----

(a) Minority interest primarily includes before-tax amounts.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

(Millions of dollars)

	31 March 2005 ----	30 September 2004 ----
ASSETS		
CURRENT ASSETS		
Cash and cash items	\$ 410.9	\$ 146.3
Trade receivables, less allowances for doubtful accounts	1,490.9	1,454.7
Inventories and contracts in progress	592.3	577.2
Other current assets	277.1	238.7
	-----	-----
TOTAL CURRENT ASSETS	2,771.2	2,416.9
	-----	-----
INVESTMENTS IN NET ASSETS OF AND ADVANCES TO EQUITY AFFILIATES	672.8	629.8
PLANT AND EQUIPMENT, at cost	12,752.1	12,201.5
Less accumulated depreciation	6,906.1	6,499.3
	-----	-----
PLANT AND EQUIPMENT, net	5,846.0	5,702.2
	-----	-----
GOODWILL	916.9	830.5
INTANGIBLE ASSETS, net	102.4	101.4
OTHER NONCURRENT ASSETS	398.0	359.6
	-----	-----
TOTAL ASSETS	\$ 10,707.3	\$ 10,040.4
	=====	=====
 LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
Payables and accrued liabilities	\$ 1,321.3	\$ 1,319.6
Accrued income taxes	127.6	105.9
Short-term borrowings and current portion of long-term debt	396.5	280.1
	-----	-----
TOTAL CURRENT LIABILITIES	1,845.4	1,705.6
	-----	-----
LONG-TERM DEBT	2,115.0	2,113.6
DEFERRED INCOME & OTHER NONCURRENT LIABILITIES	864.4	820.3
DEFERRED INCOME TAXES	786.3	788.0
	-----	-----
TOTAL LIABILITIES	5,611.1	5,427.5
	-----	-----
MINORITY INTEREST IN SUBSIDIARY COMPANIES	186.1	168.9
	-----	-----
TOTAL SHAREHOLDERS' EQUITY	4,910.1	4,444.0
	-----	-----
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 10,707.3	\$ 10,040.4
	=====	=====

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

(Millions of dollars)

	Six Months Ended 31 March	
	2005	2004
	----	----
OPERATING ACTIVITIES		
Net Income	\$ 342.1	\$ 273.0
Adjustments to reconcile income to cash provided by operating activities:		
Depreciation and amortization	356.5	351.0
Deferred income taxes	18.5	39.9
Undistributed earnings of unconsolidated affiliates	(27.3)	(25.6)
Gain on sale of assets and investments	(7.1)	-
Other	43.2	32.7
	-----	-----
Subtotal	\$ 725.9	\$ 671.0
Working capital changes that provided (used) cash, excluding effects of acquisitions and divestitures:		
Trade receivables	4.6	(131.3)
Inventories and contracts in progress	(12.8)	(10.4)
Payables and accrued liabilities	(52.0)	(81.8)
Other	4.4	(75.5)
	-----	-----
CASH PROVIDED BY OPERATING ACTIVITIES	670.1	372.0
	-----	-----
INVESTING ACTIVITIES		
Additions to plant and equipment (a)	(427.7)	(327.7)
Investment in and advances to unconsolidated affiliates	(4.7)	(3.9)
Acquisitions, less cash acquired (b)	(58.6)	(44.8)
Proceeds from sale of assets and investments	34.1	9.3
Other	.3	(.5)
	-----	-----
CASH USED FOR INVESTING ACTIVITIES	(456.6)	(367.6)
	-----	-----
FINANCING ACTIVITIES		
Long-term debt proceeds	457.6	147.3
Payments on long-term debt	(396.3)	(152.3)
Net increase in commercial paper and short-term borrowings	5.1	74.0
Dividends paid to shareholders	(131.3)	(102.2)
Proceeds from stock option exercises	113.7	89.4
	-----	-----
CASH PROVIDED BY FINANCING ACTIVITIES	48.8	56.2
	-----	-----
Effect of Exchange Rate Changes on Cash	2.3	5.5
	-----	-----
Increase in Cash and Cash Items	264.6	66.1
Cash and Cash Items - Beginning of Year	146.3	76.2
	-----	-----
Cash and Cash Items - End of Period	\$ 410.9	\$ 142.3
	=====	=====

(a) Excludes capital lease additions of \$2.3 and \$2.9 in 2005 and 2004, respectively.

(b) Excludes \$.6 of capital lease obligations assumed in acquisitions in 2005.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

SHARE-BASED PAYMENTS

In the financial statements for the first six months of 2005, the company has applied Accounting Principles Board (APB) Opinion No. 25, "Accounting for Stock Issued to Employees," in accounting for its stock option plans. Accordingly, no compensation expense has been recognized for employee stock options. In December 2004, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 123 (revised 2004), "Share-Based Payment," which requires companies to expense the grant-date fair value of stock options for interim periods beginning after 15 June 2005. In April 2005, the Securities and Exchange Commission amended the compliance date to fiscal years beginning after 15 June 2005. The company is planning to adopt SFAS No. 123R on 1 October 2005 and restate prior periods.

LITIGATION

In July 2003, Honeywell International, Inc. and GEM Microelectronics Materials, LLC ("Honeywell") filed suit against the company alleging breach of contract resulting from the termination of a strategic alliance agreement dated 1 October 1998. On 6 August 2004, the Delaware Chancery Court decided that the company must pay damages in the amount of \$8.1. The amount was recorded against previously established accruals. Honeywell filed an appeal of the court's decision and the company filed a cross appeal. On 29 March 2005, the Delaware Supreme Court affirmed the Delaware Chancery Court opinion in part and reversed in part, ruling that Honeywell was entitled to a recalculation of the award based upon five years of damages versus two years used for the 6 August 2004 judgment. On 13 April 2005, the company filed a motion with the Delaware Supreme Court to reconsider the ruling. The company does not expect that any sum it may have to pay in connection with this matter will have a material adverse effect on the consolidated financial condition, liquidity, or results of operations.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
SUMMARY BY BUSINESS SEGMENTS
(Unaudited)

(Millions of dollars)

	Three Months Ended		Six Months Ended	
	31 March		31 March	
	2005	2004	2005	2004
	----	----	----	----
Revenues from external customers				
Gases	\$ 1,411.8	\$ 1,284.9	\$ 2,854.5	\$ 2,488.4
Chemicals	498.9	482.7	959.6	892.8
Equipment	92.6	88.9	180.2	160.2
	-----	-----	-----	-----
Segment and Consolidated Totals	\$ 2,003.3	\$ 1,856.5	\$ 3,994.3	\$ 3,541.4
	-----	-----	-----	-----
Operating income				
Gases	\$ 206.8	\$ 189.4	\$ 426.6	\$ 371.7
Chemicals	45.0	34.7	65.0	59.2
Equipment	7.9	(.2)	13.9	(.5)
	-----	-----	-----	-----
Segment Totals	259.7	223.9	505.5	430.4
	-----	-----	-----	-----
Corporate research and development and other income (expense)	(7.5)	(13.8)	(15.0)	(21.5)
	-----	-----	-----	-----
Consolidated Totals	\$ 252.2	\$ 210.1	\$ 490.5	\$ 408.9
	-----	-----	-----	-----
Equity affiliates' income				
Gases	\$ 22.5	\$ 19.0	\$ 45.1	\$ 36.7
Chemicals	2.7	2.9	5.6	4.8
Equipment	-	.1	-	.1
	-----	-----	-----	-----
Segment and Consolidated Totals	\$ 25.2	\$ 22.0	\$ 50.7	\$ 41.6
	-----	-----	-----	-----

(Millions of dollars)

	31 March	30 September
	2005	2004
	----	----
Identifiable assets (a)		
Gases	\$ 7,677.0	\$ 7,339.8
Chemicals	1,389.7	1,402.5
Equipment	220.7	226.4
	-----	-----
Segment Totals	9,287.4	8,968.7
	-----	-----
Corporate assets	747.1	441.9
	-----	-----
Consolidated Totals	\$ 10,034.5	\$ 9,410.6
	-----	-----

(a) Identifiable assets are equal to total assets less investments in equity affiliates.

AIR PRODUCTS AND CHEMICALS, INC. and Subsidiaries
SUMMARY BY GEOGRAPHIC REGIONS
(Unaudited)

(Millions of dollars)

	Three Months Ended		Six Months Ended	
	31 March		31 March	
	2005	2004	2005	2004
	-----	-----	-----	-----
Revenues from external customers				
United States	\$ 1,150.0	\$ 1,043.1	\$ 2,288.9	\$ 1,986.3
Canada	17.3	21.5	35.8	41.1
	-----	-----	-----	-----
Total North America	1,167.3	1,064.6	2,324.7	2,027.4
	-----	-----	-----	-----
United Kingdom	140.0	178.2	294.2	325.6
Spain	114.5	108.1	230.1	213.1
Other Europe	309.0	282.6	604.8	536.9
	-----	-----	-----	-----
Total Europe	563.5	568.9	1,129.1	1,075.6
	-----	-----	-----	-----
Asia	232.7	181.3	462.3	353.1
Latin America	39.8	41.7	78.2	85.3
	-----	-----	-----	-----
Total	\$ 2,003.3	\$ 1,856.5	\$ 3,994.3	\$ 3,541.4
	-----	-----	-----	-----

Note: Geographic information is based on country of origin. The Other Europe segment operates principally in Belgium, France, Germany and the Netherlands. The Asia segment operates principally in China, Japan, Korea and Taiwan.

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MEDIA INQUIRIES:

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