# 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):

May 20, 2008

# Air Products and Chemicals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

1-4534

(Commission

File Number)

(State or other jurisdiction of incorporation)

7201 Hamilton Boulevard, Allentown, Pennsylvania

(Address of principal executive offices)

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:

[] 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))

23-1274455

(I.R.S. Employer Identification No.)

18195-1501

(Zip Code)

610 481-4911

## Top of the Form

#### Item 7.01 Regulation FD Disclosure.

On May 20, 2008, the company published the Quarter-to-Date Sales Update, including consolidated sales and product volumes for April 2008 on its website at http://www.airproducts.com/Invest/financialnews/current.htm. A copy is attached as Exhibit 99.1 to this Form 8-K. The Quarter-to-Date Sales Update is being furnished; it is not deemed to be filed.

#### Item 9.01 Financial Statements and Exhibits.

(c) Exhibits

99.1 Quarter-to-Date Sales Update dated May 20, 2008.

### 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.

May 20, 2008

Air Products and Chemicals, Inc.

By: Paul E. Huck

Name: Paul E. Huck Title: Senior Vice President and Chief Financial Officer Exhibit Index

Exhibit No.

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Description

99.1

Quarter-to-Date Sales Update dated May 20, 2008.

### May 20, 2008

(% change versus PY)	April 2008	Commentary
Consolidated Sales	14%	Solid underlying growth of 7% driven by Merchant and Tonnage
		segments, partially offset by lower equipment sales (4%). Currency
		+5%, acquisitions +2% and natural gas pass-thru +4%.
Merchant Gases	29%	Strong volume and pricing across all regions. Includes benefit
		from additional workdays/prior year holiday. Currency +8% and
		acquisitions +5%.
Tonnage Gases	21%	Sales growth driven by new plant start-ups partially offset by lower
		spot volumes. Currency +3%, acquisitions +2% and higher natural
		gas and raw material pass-thru +13%.
Electronics and	-4%	Sales declined on lower Electronics' equipment sales driven by a
Performance Materials		drop in industry capital spending. Excluding equipment, Electronics
		sales increased 5% due to strong growth in Tonnage and higher
		Materials' volumes, partially offset by restructuring impacts.
		Performance Materials benefited from strong volume growth
		particularly in Asia and higher prices. Currency +3%
Healthcare	10%	Sales increased 9% due to currency. Strength in the Europe
		homecare business was largely offset by lower US revenues.
Healthcare	10%	Performance Materials benefited from strong volume growth particularly in Asia and higher prices. Currency +3% Sales increased 9% due to currency. Strength in the Europe

Note: We are providing this information at the request of financial analysts and investors who have indicated that it would assist them in understanding recent business trends at Air Products. This information is based on current estimates and data that we believe in our judgment to be reliable. Please keep in mind that sales are not the only factors that determine future financial performance. Many other factors including raw material, energy, distribution and overhead costs and other price changes also influence results.