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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, 2009

**Air Products and Chemicals, Inc.**

\_\_\_\_\_  
(Exact name of registrant as specified in its charter)

Delaware

1-4534

23-1274455

\_\_\_\_\_  
(State or other jurisdiction  
of incorporation)

\_\_\_\_\_  
(Commission  
File Number)

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

7201 Hamilton Boulevard, Allentown, Pennsylvania

18195-1501

\_\_\_\_\_  
(Address of principal executive offices)

\_\_\_\_\_  
(Zip Code)

Registrant's telephone number, including area code:

610 481-4911

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))
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**Item 7.01 Regulation FD Disclosure.**

On May 20, 2009, the Company published the Quarter-to-Date Sales Update, including consolidated sales and product volumes for April 2009 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 and shall not be deemed to be filed.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

99.1 Quarter-to-Date Sales Update dated May 20, 2009

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**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.

May 21, 2009

By: *Paul E. Huck*

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*Name: Paul E. Huck*

*Title: Senior Vice President and Chief Financial Officer*

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Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
99.1	Quarter-to-Date Sales Update dated May 20, 2009

Quarter-to-Date  
Sales Update

May 20, 2009

(% change versus PY)	April 2009	Commentary
<b>Consolidated Sales</b>	(24%)	In-line with expectations, underlying sales declined 7% (down 9% excluding the Equipment & Energy segment) due to weak demand across most end markets. Lower natural gas pass-thru (9%) and unfavorable currency (8%) impacts.
<b>Merchant Gases</b>	(24%)	Lower volumes in all regions across most end markets, with no sequential improvement in demand. Higher pricing continues. Currency (13%).
<b>Tonnage Gases</b>	(35%)	Volume growth in refinery hydrogen was offset by weakness in chemicals and steel. Lower natural gas pass-thru (28%) and currency (4%).
<b>Electronics and Performance Materials</b>	(23%)	Electronics sales decreased due to declines in industry production. Performance Materials sales declined reflecting weakness across all regions. Currency (5%). Sequential improvement in both businesses.

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.