FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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| OMB APPROVAL        |           |  |  |  |  |  |  |  |
|---------------------|-----------|--|--|--|--|--|--|--|
| OMB Number:         | 3235-0287 |  |  |  |  |  |  |  |
| Estimated average b | urden     |  |  |  |  |  |  |  |

0.5

hours per response:

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| 1. Name and Address of Reporting Person*  SMITH LAWRENCE S      |  |               |          |              | AI                          | 2. Issuer Name and Ticker or Trading Symbol AIR PRODUCTS & CHEMICALS INC /DE/ [ APD ] |   |     |  |                          |   |                    |                        | all app<br>Direc   | olicable)<br>etor   |   | Owner  |            |  |  |
|---|--|---------------|----------|--------------|-----------------------------|---|---|-----|--|--------------------------|---|--------------------|------------------------|--|---|---|--|------------|--|--|
| (Last) (First) (Middle) 7201 HAMILTON BOULEVARD                 |  |               |          |              |                             | 3. Date of Earliest Transaction (Month/Day/Year) 01/16/2009                           |   |     |  |                          |   |                    |                        | Office<br>below  | er (give title<br>v)  | Othe<br>belo  | er (specify<br>W)  |            |  |  |
| (Street) ALLENT (City)  |  | PA<br>(State) |          | 8195<br>Zip) |                             | 4. If   | 4. If Amendment, Date of Original Filed (Month/Day/Year)  |     |  |                          |   |                    |                        |  | 6. Indiv<br>Line)<br>X  | Form<br>Form  | or Joint/Group Filing (Check Applicable orm filed by One Reporting Person orm filed by More than One Reporting erson |            |  |  |
|   | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned   |               |          |              |                             |   |   |     |  |                          |   |                    |                        |  |   |   |  |            |  |  |
| 1. Title of Security (Instr. 3)  2. Transactic Date (Month/Day/ |  |               |          |              | Execution Date,             |   | 3.<br>Transaction<br>Code (Instr. 8)  4. Securities Acquired (A) of Disposed Of (D) (Instr. 3, 4) |     |  | ed (A) oi<br>str. 3, 4 a | and 5) Secur<br>Benet   |                    | icially<br>d Following | 6. Ownership<br>Form: Direct<br>(D) or Indirec<br>(I) (Instr. 4) | Ownership   |   |  |            |  |  |
|   |  |               |          |              |                             |   |   |     | Code   | v                        | Amount  | (A) or<br>(D)      | Price                  | •  | Transa  | action(s)<br>3 and 4)   |  | (Instr. 4) |  |  |
| Common Stock 01/16/20   |  |               |          |              | 2009                        | 009   |   | P   |  | 350                      | A   | \$55               | .9226                  |  | 4,850   | D   |  |            |  |  |
|   | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |               |          |              |                             |   |   |     |  |                          |   |                    |                        |  |   |   |  |            |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)             | 2. Conversion or Exercise Price of Derivative Security  3. Transaction Date Execution Date, if any (Month/Day/Year)                          |               | on Date, |              | Transaction<br>Code (Instr. |   | of  |     | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                          | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr.<br>and 4) |                    | t                      |  | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4)   |            |  |  |
|   |  |               |          |              |                             | Code  | v   | (A) | (D)  | Date<br>Exercis          | able  | Expiration<br>Date | Title                  | of<br>Shares   |   |   |  |            |  |  |

Explanation of Responses:

Remarks:

Linda M. Svoboda as Attorney

in Fact

\*\* Signature of Reporting Person

Date

03/09/2009

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- \* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.