# FORM 4

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| STATEMENT | OF CHANGES | S IN BENEFICIAL | . OWNERSHIP |
|-----------|------------|-----------------|-------------|

| OMB APF           | PROVAL                                  |  |
|-------------------|---|--|
| OMB Number:       | 3235-0287                               |  |
| Estimated average | B Number: 3235-028 mated average burden |  |

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

| 1. Name and Address of Reporting Person* <u>Hilton Michael F</u>             |  |  | <u>A</u>                                   | 2. Issuer Name and Ticker or Trading Symbol AIR PRODUCTS & CHEMICALS INC /DE/ [ APD ] |   |   |                          |  |  |   |                    |   | all application of the contraction of the contracti | 10% Owner give title Other (specif  |             | ner  |  |            |  |  |
|--|--|--|--|---|---|---|--------------------------|--|--|---|--------------------|---|--|---|-------------|--|--|------------|--|--|
| (Last)<br>7201 HA  | •  | rst)<br>BOULEVARD                                  | (Middle)                                   |   |   | 3. Date of Earliest Transaction (Month/Day/Year) 11/30/2009 |                          |  |  |   |                    |   |  | Sr. V.P. and G.M.   |             |  |  |            |  |  |
| (Street) ALLENTOWN PA 18195  |  |  |  | 4.1   | 4. If Amendment, Date of Original Filed (Month/Day/Year)    |   |                          |  |  |   |                    |   | Individual or Joint/Group Filing (Check Applicable Line)     X Form filed by One Reporting Person     Form filed by More than One Reporting  |   |             |  |  |            |  |  |
| (City)   | (S   | tate)  | (Zip)                                      |   |   |   |                          |  |  |   |                    |   |  |   | Person      |  |  |            |  |  |
|  |  | Tal  | ole I - Nor                                | n-Deriv   | vativ   | e Se  | curitie                  | s Ac   | quired,  | Dis   | posed o            | f, or Bei                               | nefici   | ally  | Owned       |  |  |            |  |  |
| Dat  |  |  | 2. Transaction<br>Date<br>(Month/Day/Year) |   | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) |   | Transaction Code (Instr. |  | 4. Securities Acquired (A)<br>Disposed Of (D) (Instr. 3, 4<br>5) |   |                    | 4 and Securitie<br>Beneficia<br>Owned F |  | s<br>illy<br>ollowing   | Form:       | Direct I<br>Indirect E<br>str. 4)  | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership                |            |  |  |
|  |  |  |  |   |   |   |                          | Code   | v  | Amount  | (A) or<br>(D)      | Price                                   | ;  | Reported<br>Transaction(s)<br>(Instr. 3 and 4)  |             |  |  | (Instr. 4) |  |  |
| Common Stock   |  |  | 11/3                                       | 0/200   | /2009   |   |                          | F  |  | 335   | 35 D               |   | 5.6  | 14,615.842  |             |  | D  |            |  |  |
| Common Stock 1   |  |  | 12/0                                       | 1/200   | /2009   |   |                          | A  | A  |   | 1,943 A            |   | 0  | 16,558.842  |             |  | D  |            |  |  |
| Common Stock   |  |  |  |   |   |   |                          |  |  |   |                    | 3,430.43                                |  |   | I           | By RSP   |  |            |  |  |
|  | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |  |   |   |   |                          |  |  |   |                    |   |  |   |             |  |  |            |  |  |
| Derivative Conversion Security Or Exercise (Month/Day/Year) Execution if any |  | 3A. Deemed<br>Execution D<br>if any<br>(Month/Day) | Date, Transaction<br>Code (Instr.          |   |   | of I  |                          | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |  | 7. Title and Amount<br>of Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |                    | 5                                       | d. Price of<br>Derivative<br>Security<br>Instr. 5)   | 9. Number derivative Securities Beneficial Owned Following Reported Transactio (Instr. 4) | is<br>Silly | 10.<br>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>Exercisal  |   | Expiration<br>Date | Title                                   | Amou<br>or<br>Numb<br>of<br>Share  | er  |             |  |  |            |  |  |
| Stock<br>Option<br>(Right to<br>Buy) <sup>(1)</sup>                          | \$83.6   | 12/01/2009   |  |   | A   |   | 15,867                   |  | 08/08/198  | 8(2)  | 12/01/2019         | Common<br>Stock                         | 15,86  | 57  | \$0         | 15,86  | 7  | D          |  |  |

## **Explanation of Responses:**

- 1. Employee Stock Options granted under the issuer's Long-Term Incentive Plan.
- 2. These options become exercisable in one-third increments on the first three anniversaries of grant.

### Remarks:

Linda M. Svoboda as Attorney

in Fact

\*\* Signature of Reporting Person Date

12/02/2009

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.