Instruction 1(b).

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

| washington, D.C. 20549 | |
|------------------------|--|
| | |

| Check this box if no longer subject to | STATE |
|--|-------|
| Section 16. Form 4 or Form 5 | 0., |
| obligations may continue. See | |

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

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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* Henkes Evert | | | | | 2. Issuer Name and Ticker or Trading Symbol AIR PRODUCTS & CHEMICALS INC /DE/ [APD] | | | | | | | | (Che | elationship ceck all applic Compared to the community of | able) | g Pers | on(s) to Issu 10% Ov | |
|--|---|--|---|---|---|---------|---------|-------------|--------------------------------------|------------------|-------------------------|---|---|--|---|----------------------|--|--|
| (Last) (First) (Middle) 7201 HAMILTON BOULEVARD | | | | 3. Date of Earliest Transaction (Month/Day/Year) 01/26/2012 | | | | | | | | | Officer below) | Officer (give title below) | | Other (s below) | pecify | |
| (Street) ALLEN | | A State) | 18195 (Zip) | | 4. If Am | endmen | t, Date | e of C | Original F | iled | (Month/Day | /Year) | Line | X Form fi | led by One led by Mor | Repo | (Check Apporting Person One Repor | 1 |
| (- 9) | | , | ble I - Nor | n-Deriva | tive S | ecuriti | es A | /car | uired. [| Dist | osed of | . or Ben | eficiall | v Owned | | | | |
| Table II - Dei | | | | Execution Date, | | | (ear) | red, Di | v spc | Amount osed of, | (A) or (D) | Price | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | | Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of ndirect Beneficial Ownership (Instr. 4) | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Da if any (Month/Day/ | Cod | nsaction le (Instr. | of | | Exp | ate Exerc iration Da nth/Day/Y | ite | e and | and 7. Title and Amount of Securities Underlying Derivative Sec (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | | e ss ally g | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | Cod | le V | (A) | (D) | Date Exe | e rcisable | | piration tte | Title | Amount or Number of Shares | | | | | |
| Phantom Stock | \$0.0000(1) | 01/26/2012 | | A | | 1,362 | | 08/0 |)8/1988 ⁽²⁾ | 08 | /08/1988 ⁽²⁾ | Common Stock | 1,362 | \$88.16 | 10,982.8 | 3748 | D | |

Explanation of Responses:

- 1. Not applicable to this security
- 2. These units are payable in the form of shares of common Stock equal in number to the units, at the time elected by the reporting person, which is generally after service on the issuer's Board of Directors ends. Units may be paid in a lump sum or up to ten installments as elected by the reporting person in advance.

Linda M. Svoboda as Attorney

in Fact

** Signature of Reporting Person Date

01/27/2012

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.