

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934
ANNUAL FILING

AIR PRODUCTS AND CHEMICALS, INC.

(NAME OF ISSUER)

COMMON

(TITLE CLASS OF SECURITIES)

009158106

(CUSIP NUMBER)

12/31/2005

(DATE OF EVENT WHICH REQUIRES FILING OF THIS STATEMENT)

CHECK THE APPROPRIATE BOX TO DESIGNATE THE RULE PURSUANT TO WHICH
THIS SCHEDULE IS FILED:

(X) RULE 13D-1(B)

() RULE 13D-1(C)

() RULE 13D-1(D)

*THE REMAINDER OF THIS COVER PAGE SHALL BE FILLED OUT FOR A
REPORTING PERSON'S INITIAL FILING ON THIS FORM WITH RESPECT TO THE
SUBJECT CLASS OF SECURITIES, AND FOR ANY SUBSEQUENT AMENDMENT
CONTAINING INFORMATION WHICH WOULD ALTER THE DISCLOSURES PROVIDED
IN A PRIOR COVER PAGE.

THE INFORMATION REQUIRED IN THE REMAINDER OF THIS COVER PAGE SHALL
NOT BE DEEMED TO BE "FILED" FOR THE PURPOSE OF SECTION 18 OF THE
SECURITIES EXCHANGE ACT OF 1934 ("ACT") OR OTHERWISE SUBJECT TO
THE
LIABILITIES OF THAT SECTION OF THE ACT BUT SHALL BE SUBJECT TO ALL
OTHER PROVISIONS OF THE ACT (HOWEVER, SEE THE NOTES).

CUSIP NO. 009158106

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1. NAME OF REPORTING PERSON

S.S. OR I.R.S. IDENTIFICATION NO. OF PERSON

STATE STREET BANK AND TRUST COMPANY, ACTING IN VARIOUS
FIDUCIARY CAPACITIES. 04-1867445

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP.*

NOT APPLICABLE

A ___

B ___

3. SEC USE ONLY

4. CITIZENSHIP OR PLACE OF ORGANIZATION

BOSTON, MASSACHUSETTS

5. SOLE VOTING POWER

6,914,065 SHARES

6. SHARED VOTING POWER

6,978,036 SHARES

7. SOLE DISPOSITIVE POWER

0 SHARES

8. SHARED DISPOSITIVE POWER
13,892,101 SHARES
9. AGGREGATED AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
13,892,101 SHARES
10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*
NOT APPLICABLE
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9
6.25%
12. TYPE OF REPORTING PERSON*
BK

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ITEM 1.

- (A) NAME OF ISSUER
AIR PRODUCTS AND CHEMICALS, INC.
- (B) ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES
7201 HAMILTON BLVD.
ALLENTOWN PA 18195-1501

ITEM 2.

- (A) NAME OF PERSON FILING
STATE STREET BANK AND TRUST COMPANY, TRUSTEE
- (B) ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE,
RESIDENCE

225 FRANKLIN STREET, BOSTON, MA 02110
- (C) CITIZENSHIP

BOSTON, MASSACHUSETTS
- (D) TITLE CLASS OF SECURITIES
COMMON
- (E) CUSIP NUMBER
009158106

ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO RULE 13D-1(B), OR
13D-2(B), CHECK WHETHER THE PERSON FILING IS A:

- (B) BANK AS DEFINED IN SECTION 3(A)(6) OF THE ACT

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ITEM 4. OWNERSHIP

- (A) AMOUNT BENEFICIALLY OWNED
13,892,101 SHARES
- (B) PERCENT OF CLASS
6.25%
- (C) NUMBER OF SHARES AS TO WHICH SUCH PERSON HAS:
(I) SOLE POWER TO VOTE OR TO DIRECT THE VOTE OF
6,914,065 SHARES
(II) SHARED POWER TO VOTE OR TO DIRECT THE VOTE OF
6,978,036 SHARES
(III) SOLE POWER TO DISPOSE OR TO DIRECT THE DISPOSITION OF
0 SHARES
(IV) SHARED POWER TO DISPOSE OR TO DIRECT THE DISPOSITION OF
13,892,101 SHARES

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS

NOT APPLICABLE

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER
PERSON.

NOT APPLICABLE

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH

ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT
HOLDING COMPANY

NOT APPLICABLE

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP

NOT APPLICABLE

ITEM 9. NOTICE OF DISSOLUTION OF GROUP

NOT APPLICABLE

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ITEM 10. CERTIFICATION

THE FOLLOWING CERTIFICATION SHALL BE INCLUDED IF THE
STATEMENT IS FILED PURSUANT TO RULE 13D-1(B):

BY SIGNING BELOW I CERTIFY THAT, TO THE BEST OF MY
KNOWLEDGE AND BELIEF, THE SECURITIES REFERRED TO ABOVE WERE
ACQUIRED IN THE ORDINARY COURSE OF BUSINESS AND WERE NOT ACQUIRED
FOR THE PURPOSE OF AND DO NOT HAVE THE EFFECT OF CHANGING OR
INFLUENCING THE CONTROL OF THE ISSUER OF SUCH SECURITIES AND WERE
NOT ACQUIRED IN CONNECTION WITH OR AS A PARTICIPANT IN ANY
TRANSACTION HAVING SUCH PURPOSES OR EFFECT.

THIS REPORT IS NOT AN ADMISSION THAT STATE STREET BANK AND
TRUST COMPANY IS THE BENEFICIAL OWNER OF ANY SECURITIES COVERED BY
THIS REPORT, AND STATE STREET BANK AND TRUST COMPANY EXPRESSLY
DISCLAIMS BENEFICIAL OWNERSHIP OF ALL SHARES REPORTED HEREIN
PURSUANT TO RULE 13D-4.

SIGNATURE

AFTER REASONABLE INQUIRY AND TO THE BEST OF MY KNOWLEDGE AND
BELIEF, I CERTIFY THAT THE INFORMATION SET FORTH IN THIS STATEMENT
IS TRUE, COMPLETE AND CORRECT.

13 FEBRUARY 2006

STATE STREET CORPORATION
STATE STREET BANK AND TRUST COMPANY,
TRUSTEE

/s/ SUSAN C. DANIELS
VICE PRESIDENT