

As filed with the Securities and Exchange Commission on February 5, 1997

Registration No.

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

AIR PRODUCTS AND CHEMICALS, INC.
(Exact Name of Registrant as Specified in Its Charter)Delaware
(State or Other Jurisdiction of Incorporation or Organization)23-1274455
(I.R.S. Employer Identification No.)7201 Hamilton Boulevard, Allentown, Pennsylvania 18195-1501
(Address of Principal Executive Offices) (Zip Code)Air Products and Chemicals, Inc. 1997 Long-Term Incentive Plan
(formerly known as the 1990 Long-Term Incentive Plan)
(Full Title of the Plan)James H. Agger, Vice President, General Counsel and Secretary
Air Products and Chemicals, Inc., 7201 Hamilton Boulevard, Allentown,
PA 18195-1501
(Name and Address of Agent for Service)610-481-4911
(Telephone Number, Including Area Code, of Agent for Service)

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee(1)
Common Stock, par value \$1				
1997 Fair Market Value Options	876,359	\$ 58.13	\$50,942,748.67	\$ 15,437.20
1997 Premium Options	319,900	\$ 72.00	\$23,032,800.00	\$ 6,979.64
1997 Performance Shares	73,750	\$ 71.00	\$ 5,236,250.00	\$ 1,586.74
TOTAL	1,270,009	=====	\$79,211,798.67	\$ 24,003.58

(1)The registration fee with respect to these shares has been computed in accordance with paragraphs (c) and (h) of Rule 457, based upon, in the case of Options, the stated exercise price of such Options, and, in the case of Performance Shares, the average of the reported high and low sale prices of shares of Common Stock on January 30, 1997 (i.e., \$71.00 per share).

Air Products and Chemicals, Inc. (the "Company"), by the filing of this Registration Statement, hereby registers additional shares of common stock of the Company, for distribution pursuant to the 1997 Long-Term Incentive Plan (the "Plan"), formerly known as the 1990 Long-Term Incentive Plan. These are securities of the same class as the securities registered on Forms S-8, Registration Statement Nos. 33-57023 and 33-65117 for distribution pursuant to the Plan. Accordingly, the contents of Registration Statement Nos. 33-57023 and 33-65117 are incorporated herein by reference.

EXHIBITS

- 23. Consent of Arthur Andersen LLP.
- 24. Power of Attorney.

SIGNATURES

The Registrant. Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Allentown, State of Pennsylvania, on this 5th day of February, 1997.

AIR PRODUCTS AND CHEMICALS, INC.
(Registrant)

By: /s/ James H. Agger

 James H. Agger*
 Vice President, General Counsel
 and Secretary

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 * James H. Agger, Vice President, General Counsel and Secretary, by signing his name hereto, signs this registration statement on behalf of the registrant and, for each of the persons indicated by asterisk on pages 3 and 4 hereof, pursuant to a power of attorney duly executed by such persons which is filed with the Securities and Exchange Commission herewith.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated.

Signature -----	Title -----	Date ----
/s/ Harold A. Wagner ----- Harold A. Wagner	Director, Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	February 5, 1997
/s/ Arnold H. Kaplan ----- Arnold H. Kaplan	Vice President - Finance (Principal Financial Officer)	February 5, 1997
/s/ Paul E. Huck ----- Paul E. Huck	Corporate Controller (Principal Accounting Officer)	February 5, 1997
* ----- Dexter F. Baker	Director	February 5, 1997
----- Tom H. Barrett	Director	February 5, 1997
* ----- L. Paul Bremer III	Director	February 5, 1997
* ----- Robert Cizik	Director	February 5, 1997
* ----- Ruth M. Davis	Director	February 5, 1997
----- Edward E. Hagenlocker	Director	February 5, 1997
* ----- Joseph J. Kaminski	Director	February 5, 1997

Signature

Title

Date

*

Director

February 5, 1997

Terry R. Lautenbach

*

Director

February 5, 1997

Ruud F. M. Lubbers

*

Director

February 5, 1997

Takeo Shiina

*

Director

February 5, 1997

Lawrason D. Thomas

- 23. Consent of Arthur Andersen LLP
- 24. Power of Attorney

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

To: Air Products and Chemicals, Inc.:

As independent public accountants, we hereby consent to the incorporation by reference in this Registration Statement of our report dated 1 November 1996, included in the Annual Report of Air Products and Chemicals, Inc., on Form 10-K for the year ended 30 September 1996.

ARTHUR ANDERSEN LLP

Philadelphia, Pennsylvania
5 February 1997

EXHIBIT 24
EMPLOYEE BENEFIT PLANS/
MEDIUM-TERM NOTES, SERIES F

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints HAROLD A. WAGNER or ARNOLD H. KAPLAN or JAMES H. AGGER, acting severally, his/her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him/her and in his/her name, place, and stead, in any and all capacities, to sign (A) Form S-8 Registration Statements and amendments thereto pertaining to interests in and/or Common Stock issued under the Air Products and Chemicals, Inc. Long-Term Incentive Plan, the Air Products and Chemicals, Inc. 1997 Long-Term Incentive Plan (formerly the 1990 Long-Term Incentive Plan), the Air Products and Chemicals, Inc. Retirement Savings and Stock Ownership Plan, the Air Products PLC (formerly Air Products Limited) UK Savings-Related Share Option Scheme, and the 1996 Employee Stock Option Award, which may be required in connection with (i) the registration of interests in and/or Common Stock for issuance under such plans as may be necessary from time to time in accordance with the provisions of such plans, (ii) amendments to said plans heretofore or hereafter approved by the Board or the Management Development and Compensation Committee of the Board or by Air Products PLC or (iii) any fundamental change in the information contained in such Registration Statements, and (B) any amendments to Registration Statement No. 333-02461 for the registration of \$500,000,000 aggregate principal amount of Medium-Term Notes, Series F, of Air Products and Chemicals, Inc., and any and all amendments thereto, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he/she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Power of Attorney has been signed below by the following persons in the capacities and on the dates indicated.

SIGNATURE

TITLE

DATE

/s/ Harold A. Wagner

Director, Chairman of the Board, Chief
Executive Officer and Employee Benefit Plans
Committee Member
(Principal Executive Officer)

November 21, 1996

Harold A. Wagner

/s/ Dexter F. Baker

Director

November 21, 1996

Dexter F. Baker

/s/ Tom H. Barrett ----- Tom H. Barrett	Director	November 21, 1996
/s/ L. Paul Bremer III ----- L. Paul Bremer, III	Director	November 21, 1996
/s/ Robert Cizik ----- Robert Cizik	Director	November 21, 1996
/s/ Ruth M. Davis ----- Ruth M. Davis	Director	November 21, 1996
/s/ Joseph J. Kaminski ----- Joseph J. Kaminski	Director	November 21, 1996
/s/ Terry R. Lautenbach ----- Terry R. Lautenbach	Director	November 21, 1996
/s/ Ruud F. M. Lubbers ----- Ruud F. M. Lubbers	Director	November 21, 1996
/s/ Judith Rodin ----- Judith Rodin	Director	November 21, 1996
/s/ Takeo Shiina ----- Takeo Shiina	Director	November 21, 1996
/s/ Lawrason D. Thomas ----- Lawrason D. Thomas	Director	November 21, 1996