

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. Stock Option Plan for Directors

(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 (1)	Amount of registration fee
Common Stock, par value \$1				
1994	10,000	\$48.25	\$ 482,500.00	\$166.38
1995	9,000	\$45.375	\$ 408,375.00	\$140.82
1996	9,000	\$50.8125	\$ 457,312.50	\$157.69
1997	9,000	\$69.6875	\$ 627,187.50	\$216.27
TOTAL	37,000		\$1,975,375.00	\$681.16

(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 previously granted, the stated exercise price of such options, and, in the case of options still available for grant, the average of the reported high and low sale prices of shares of Common Stock on December 20, 1996.

PART I
INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

- ITEM 1. PLAN INFORMATION. (2)
- ITEM 2. REGISTRANT INFORMATION AND EMPLOYEE PLAN ANNUAL INFORMATION. (2)

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

- ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The documents listed in clauses (a), (b) and (c) below are incorporated herein by this reference thereto, and all documents subsequently filed by the registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by this reference in this registration statement and to be a part hereof from the date of filing of such documents.

(a) The registrant's Annual Report on Form 10-K for the year ended September 30, 1996.

(b) All other reports filed by the registrant pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the registrant document referred to in (a) above.

(c) The description of the Common Stock contained in the registration statement filed by the registrant to register such securities under Section 12 of the Securities Exchange Act of 1934, including any amendment or report filed for the purpose of updating such description.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this registration statement shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained in this registration statement or in any other contemporaneously or subsequently filed document which also is or is deemed to be incorporated by reference in this registration statement modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

- ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

- ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not applicable.

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- (2) The information called for by Part I of Form S-8 is currently included in the descriptions of the registrant's Stock Option Plan for Directors (the "Plan") to be delivered to eligible persons under the Plan. Pursuant to the Note to Part I of Form S-8, this information is not being filed with or included in this Form S-8.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware Corporation Law gives corporations the power to indemnify officers and directors under certain circumstances.

Article Ninth of the registrant's Restated Certificate of Incorporation contains provisions which provide for indemnification of certain persons (including officers and directors). The Restated Certificate of Incorporation is filed as an exhibit to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 1987.

The registrant maintains insurance that generally insures the officers and directors of the registrant and its subsidiaries (as defined in said policy) against liabilities incurred in such capacities, and insures the registrant with respect to amounts to which officers and directors become entitled as indemnification payments from the registrant, subject to certain specified exclusions and deductible and maximum amounts. The registrant also maintains a policy of insurance that insures, among others, certain officers and directors of the registrant and certain of its subsidiaries against liabilities incurred for Breach of Fiduciary Duty (as defined in said policy) with respect to their performance of their duties and responsibilities in connection with certain pension and retirement plans of the registrant and certain of its subsidiaries, subject to certain specified exclusions and deductible and maximum amounts.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

An Exhibit Index, containing a list of all exhibits filed with this registration statement, is included on page 9.

ITEM 9. UNDERTAKINGS.

(a) Rule 415 offering.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof)

which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (1)(i) and 1(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) Filings incorporating subsequent Exchange Act Documents by Reference.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Filing of Registration Statement on Form S-8.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions described under Item 6 above, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liability (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

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, Commonwealth of Pennsylvania, on this 30th day of December, 1996.

AIR PRODUCTS AND CHEMICALS, INC.
(Registrant)

By: /s/ James H. Agger

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

* 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 6 and 7 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)	December 30, 1996
/s/ Arnold H. Kaplan ----- Arnold H. Kaplan	Vice President - Finance (Principal Financial Officer)	December 30, 1996
/s/ Paul E. Huck ----- Paul E. Huck	Corporate Controller (Principal Accounting Officer)	December 30, 1996
* ----- Dexter F. Baker	Director	December 30, 1996
----- Tom H. Barrett	Director	December 30, 1996
* ----- L. Paul Bremer III	Director	December 30, 1996
* ----- Robert Cizik	Director	December 30, 1996
* ----- Ruth M. Davis	Director	December 30, 1996
* ----- Joseph J. Kaminski	Director	December 30, 1996

Signature -----	Title -----	Date -----
* ----- Terry R. Lautenbach	Director	December 30, 1996
* ----- Ruud F. M. Lubbers	Director	December 30, 1996
* ----- Judith Rodin	Director	December 30, 1996
* ----- Takeo Shiina	Director	December 30, 1996
* ----- Lawrason D. Thomas	Director	December 30, 1996

23. Consent of Arthur Andersen LLP

24. Power of Attorney

No opinion of counsel is being filed because the Common Stock to be distributed in connection with the Plan will consist exclusively of previously issued shares that are presently held by the registrant as treasury shares and will not constitute original issuance shares; further, no opinion is being furnished with respect to ERISA compliance because the Plan is not subject to the requirements of ERISA.

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 reports dated 1 November 1996, included or incorporated by reference 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
30 December 1996

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints HAROLD A. WAGNER, JAMES H. AGGER, or ARNOLD H. Kaplan, 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 Form S-8 Registration Statements and amendments thereto pertaining to interests in and/or Common Stock issued under the Stock Option Plan for Directors, the Deferred Compensation Plan for Directors, or any other plan, program, or award ("Plans") of Air Products and Chemicals, Inc. which involves Common Stock, 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 appropriate committee of the Board or (iii) any fundamental change in the information contained in such Registration Statements, 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 ----- Harold A. Wagner	Director, Chairman of the Board, Chief Executive Officer and Employee Benefit Plans Committee Member (Principal Executive Officer)	December 12, 1996
/s/ Dexter F. Baker ----- Dexter F. Baker	Director	December 12, 1996
----- Tom H. Barrett	Director	December 12, 1996
/s/ L. Paul Bremer III ----- L. Paul Bremer, III	Director	December 12, 1996

/s/ Robert Cizik	Director	December 12, 1996

Robert Cizik		
/s/ Ruth M. Davis	Director	December 12, 1996

Ruth M. Davis		
/s/ Joseph J. Kaminski	Director	December 12, 1996

Joseph J. Kaminski		
/s/ Terry R. Lautenbach	Director	December 12, 1996

Terry R. Lautenbach		
-----	Director	December 12, 1996
Ruud F. M. Lubbers		
-----	Director	December 12, 1996
Judith Rodin		
/s/ Takeo Shiina	Director	December 12, 1996

Takeo Shiina		
/s/ Lawrason D. Thomas	Director	December 12, 1996

Lawrason D. Thomas		