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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

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FORM 11-K

FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS
AND SIMILAR PLANS PURSUANT TO SECTION 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934

For the fiscal year ended September 30, 2013

or

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934

For the transition period from ____ to ____

Commission file number 1-4534

A. Full title of the Plan and the address of the Plan, if different from that of the issuer named
below:

**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN**

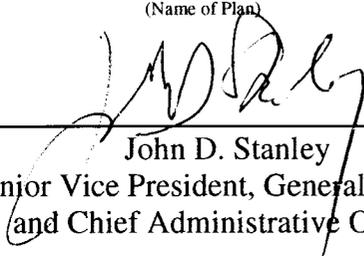
B. Name of issuer of the securities held pursuant to the Plan and the address of its principal
executive offices:

**AIR PRODUCTS AND CHEMICALS, INC.
7201 HAMILTON BOULEVARD
ALLENTOWN, PA 18195-1501**

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this Annual Report to be signed on its behalf by the undersigned, hereunto duly authorized.

Air Products and Chemicals, Inc.
Retirement Savings Plan
(Name of Plan)

Dated: March 27, 2014

By: 

John D. Stanley
Senior Vice President, General Counsel,
and Chief Administrative Officer



Consent of Independent Registered Public Accounting Firm

The Plan Administrator
Air Products and Chemicals, Inc. Retirement
Savings Plan:

We consent to the incorporation by reference in the registration statement (No. 333-158101) on Form S-8 of Air Products and Chemicals, Inc. of our report dated 27 March 2014, with respect to the statements of net assets available for benefits of the Air Products and Chemicals, Inc. Retirement Savings Plan as of 30 September 2013 and 2012, the related statements of changes in net assets available for benefits for the years then ended and the supplemental schedule, Schedule H, Line 4(i) – Schedule of Assets (Held at end of Year) as of 30 September 2013, which report appears in the 30 September 2013 annual report on Form 11-K of the Air Products and Chemicals, Inc. Retirement Savings Plan.

KPMG LLP

Philadelphia, Pennsylvania
27 March 2014



**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN**

Financial Statements and Schedule

30 September 2013 and 2012

**(With Report of Independent Registered Public
Accounting Firm Thereon)**

**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN**

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Schedule H, Line 4(i) – Schedule of Assets (Held at end of Year), 30 September 2013	18
 Note: All other schedules required by the Department of Labor’s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because there is no information to report.	



KPMG LLP
1601 Market Street
Philadelphia, PA 19103-2499

Report of Independent Registered Public Accounting Firm

The Plan Administrator
Air Products and Chemicals, Inc.
Retirement Savings Plan:

We have audited the accompanying statements of net assets available for benefits of the Air Products and Chemicals, Inc. Retirement Savings Plan (the Plan) as of 30 September 2013 and 2012, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of 30 September 2013 and 2012, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule, Schedule H, Line 4(i), Schedule of Assets (Held at end of Year) as of 30 September 2013 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the *Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974*. The supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

KPMG LLP

Philadelphia, Pennsylvania
27 March 2014

KPMG LLP is a Delaware limited liability partnership,
the U.S. member firm of KPMG International Cooperative
("KPMG International"), a Swiss entity.

**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN**

Statements of Net Assets Available for Benefits

30 September 2013 and 2012

(In thousands)

	2013	2012
Assets:		
Investments at fair value:		
Interest-bearing cash	\$ 15,610	12,714
Money Market Fund	39,449	30,100
Life Cycle Funds	183,767	123,694
Corporate Bond Fund	92,395	116,692
Bond Index Fund	6,262	2,932
Balanced Fund	146,561	123,261
S&P 500 Index Stock Fund	140,534	119,490
Extended Market Index Fund	14,508	1,211
Mid Cap Core Fund	27,511	3,116
Large Cap Value Fund	206,975	184,645
Large Cap Growth Fund	73,821	66,340
International Stock Funds	108,599	86,255
Small Capitalization Equity Fund	120,019	88,329
Company Stock	386,895	384,286
Fixed Income Securities Fund	239,761	231,970
Self-Directed Brokerage Account	44,150	32,675
Total investments at fair value	1,846,817	1,607,710
Receivables:		
Participant loans	19,517	18,674
Accrued interest and dividends	2,867	3,329
Other receivables	633	130
Total receivables	23,017	22,133
Total assets	1,869,834	1,629,843
Liabilities:		
Payables and accrued liabilities	446	1,389
Total liabilities	446	1,389
Net assets available for benefits at fair value	1,869,388	1,628,454
Adjustment from fair value to contract value for fully benefit-responsive investment contracts	(4,570)	(10,319)
Net assets available for benefits	\$ 1,864,818	1,618,135

See accompanying notes to financial statements.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Statements of Changes in Net Assets Available for Benefits

Years ended 30 September 2013 and 2012

(In thousands)

	2013	2012
Additions:		
Participant contributions	\$ 59,878	54,700
Company matching contributions	18,723	17,488
Company core contributions, net of forfeitures	13,251	11,492
Interest income	654	612
Dividend income	28,147	24,957
Net appreciation in fair value of investments	255,934	209,839
Total additions	376,587	319,088
Deductions:		
Distributions to participants	129,859	105,299
Administrative expenses	45	72
Total deductions	129,904	105,371
Net increase	246,683	213,717
Net assets available for benefits, beginning of year	1,618,135	1,404,418
Net assets available for benefits, end of year	\$ 1,864,818	1,618,135

See accompanying notes to financial statements.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

30 September 2013 and 2012

(1) Description of the Plan

The following description of the Air Products and Chemicals, Inc. Retirement Savings Plan (the Plan) provides only general information. Participants should refer to the summary plan description and the plan document for a more complete description of the Plan's provisions.

(a) General

The Plan is a defined-contribution plan sponsored by Air Products and Chemicals, Inc. (the Company) covering certain full-time and part-time salaried and nonunion hourly employees of the Company and designated subsidiaries. Participants of the Plan are entitled to make before-tax contributions and after-tax contributions as allowed by Sections 401(k) and 401(m) of the Internal Revenue Code (IRC) after having completed at least 30 days of service. Company matching contributions are made under IRC Section 401(m). The Plan is subject to the provisions of the Employee Retirement Income Security Act (ERISA).

(b) Administration

The Board of Directors of the Company (the Board) has delegated oversight for the design and administration of the Plan to its Management Development and Compensation Committee and oversight for the funding and management of assets of the Plan to its Finance Committee. The Board has delegated authority to the Chairman, President and Chief Executive Officer (the Chairman) to take such actions as necessary to provide employee pension or welfare benefits, in accordance with its delegation with respect to the Company's pension and welfare benefit plans. The Chairman has delegated some of this authority to the Senior Vice President and Chief Administrative Officer, who has established a Benefits Committee to have fiduciary responsibility for appeals of the denial of benefits in an ERISA claim and who has delegated the authority to administer the Plan to the Company's Director of Compensation and Benefits (the Plan Administrator). The Finance Committee has appointed the Pension Investment Committee to assist with oversight of the investment of Plan assets. Fidelity Management Trust (Fidelity) is the trustee of the Plan.

(c) Participant Accounts

Each participant's account is credited with the participant's and the Company's contributions, as well as an allocation of the Plan's earnings or losses and charged with administrative expenses. Allocations are based on participant account balances. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account balance.

(d) Contributions

Subject to certain IRC restrictions, participants may elect to contribute to the Plan on a before-tax basis from 3% to 50%, in whole percentages, of compensation, as defined in the plan document, through payroll deductions. The before-tax basis allows a participant to defer recognition of income for federal income tax purposes. The maximum after-tax contribution is 16%. Participants who are at least age 50 before the close of the calendar year may make catch-up contributions in accordance with, and subject to the limitations of, IRC Section 414(v).

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

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30 September 2013 and 2012

The Company will match certain contributions to the Plan made by participants. The matching contribution calculation will depend on whether or not the participant receives Company Core Contributions under the Plan. To be eligible for Company Core Contributions, a participant must be (1) a salaried employee hired or rehired after 31 October 2004, (2) an hourly employee who transferred to a salaried status after 31 October 2004, (3) a nonunion hourly employee hired or rehired after 31 January 2011, (4) an employee who becomes a nonunion hourly employee after 31 January 2011 due to a change in employment status and is not earning credited service under the Pension Plan for Hourly Rated Employees of Air Products and Chemicals, Inc., or (5) a salaried employee who made an irrevocable election to receive Company Core Contributions under the Plan instead of continuing to earn credited service under the Air Products and Chemicals, Inc. Pension Plan for Salaried Employees. Company Core Contributions are made under IRC Section 401(a).

Company Core Contributions are cash contributions made by the Company to eligible participants' accounts in accordance with the participants' investment direction election. The amount of Company Core Contributions is based on participants' service and base pay as follows:

- 4% of base pay if credited service is less than 10 years, or
- 5% of base pay if credited service is between 10 and 19 years, or
- 6% of base pay if credited service is 20 years or more.

Eligible participants are not required to contribute to the Plan in order to receive the Company Core Contribution.

For participants who are receiving Company Core Contributions, the Company will match participant contributions as follows:

- \$0.75 for each \$1.00 of the first 4% of base pay that is contributed, if it is before tax, plus
- \$0.50 for each \$1.00 of the next 2% of base pay that is contributed, if it is before tax.

For participants who are not receiving Company Core Contributions but rather are earning credited service in the Air Products and Chemicals, Inc. Pension Plan for Salaried Employees or in the Pension Plan for Hourly Rated Employees of Air Products and Chemicals, Inc., the Company will match participant contributions as follows:

- \$0.75 for each \$1.00 of the first 3% of base pay that is contributed, if it is before tax, plus
- \$0.25 for each \$1.00 of the next 3% of base pay that is contributed, either before tax or after tax.

Catch-up contributions are not eligible for matching contributions.

Company matching contributions are invested in the Company Stock Fund. The Company's matching contributions may be transferred by the Plan's participants to any other of the Plan's investment options at any time. As such, the Company Stock Fund is deemed participant directed.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

30 September 2013 and 2012

(e) Contribution Percentage Changes

Contribution percentage changes are effective as soon as administratively possible after receipt of request.

(f) Rollovers

A participant or any other employee who is entitled to make a rollover contribution to the Plan under the IRC may make a cash contribution to the Plan of all or a portion of any such rollover contribution amount.

(g) Vesting

Participants are immediately vested in 100% of their elected salary deferrals, rollover contributions, the Company's matching contributions, and earnings thereon. A participant vests in Company Core Contributions plus investment earnings thereon, 20% for each year of service reaching 100% after five years of service, or, if earlier, upon reaching age 65.

(h) Forfeitures

Forfeitures can be used by the Company to reduce Company Core Contributions. Forfeitures used to reduce Company Core Contributions were approximately \$471,000 for 2013 and \$398,000 for 2012 and are reflected as a reduction to the Company Core Contributions in the accompanying statements of changes in net assets available for benefits. There were no unallocated forfeitures at year-end.

(i) Withdrawal Provisions

Upon application, but no sooner than 12 months after any earlier withdrawal:

- (a) a participant may withdraw all or a portion of after-tax contributions, which have been in the Plan for at least two years;
- (b) after withdrawing all amounts described in subparagraph (a), a participant may withdraw any company matching contributions, which have been in the Plan for at least two years;
- (c) after withdrawing all amounts described in subparagraphs (a) and (b), a participant may withdraw before-tax contributions and then vested Company Core Contributions upon
 - (i) Attaining age 59½;
 - (ii) Providing satisfactory evidence that the withdrawal is required on account of a "hardship." Hardship withdrawals will be limited to situations in which a participant has an immediate and heavy financial need and a distribution from the Plan is necessary to meet that need. A plan loan must be pursued first. A hardship withdrawal may be made without regard to whether any other withdrawal has occurred within the last 12 months and will result in the suspension of the right to contribute to the Plan for the next 6 months;

**AIR PRODUCTS AND CHEMICALS, INC.
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- (iii) A Qualified Reservist Distribution; or
- (iv) A distribution pursuant to the Heroes Earnings Assistance and Relief Tax Act of 2008.

A participant, upon separation of employment, is entitled to receive all amounts credited to his or her account, including before-tax, after-tax, catch-up, company matching contributions, and all vested Company Core Contributions. This distribution will automatically occur on or about 60 days after the end of the month in which employment ends if the participant's account balance is less than \$1,000. Any outstanding loan balance, which is not repaid within 90 days, will be treated as a taxable distribution. As an exception, at the discretion of the Pension Investment Committee, loan balances may be transferred to a successor employer for participants whose employment ends due to a divestiture of a business or segment of the Company. Participants may elect to roll over distributions directly into another qualified plan or an Individual Retirement Account. The distribution of a participant's account balance may be deferred until the earlier of age 70½ or death.

(j) Participant Loans

The Plan may make a loan or loans to any participant upon electronic request through Fidelity. Loans may be made in an amount that, when added to the outstanding balance of any other loan, will not exceed the lesser of \$50,000 reduced by any loan amounts repaid during the preceding year, or one half of the present value of the participant's vested account balance. Participant loans are valued at the sum of the unpaid principal balance, plus accrued but unpaid interest. The loan must be adequately secured, bear a reasonable interest rate, and be repaid within a maximum of five years, unless such loan is for a principal residence, in which case the loan is to be repaid within a maximum of 25 years. The interest rate charged on all outstanding participant loans during the Plan year ended 30 September 2013, ranged from 4.25% to 12.5%.

Loan principal and interest repayments are credited directly to the borrowing participant's plan account and invested in accordance with the participant's then-current investment directions. At the time of a participant's termination of employment, the participant must repay the full principal amount remaining to avoid a taxable deemed distribution of the loan balance.

(k) Investment Directions

Participant investment fund elections can be made in increments of 1% provided the percentages total 100%. Company matching contributions are invested in the Company Stock Fund, which may be transferred by the Plan's participants to any other investment option at any time, provided they are not in violation of frequent trading rules, in which case transfers may be limited to the Money Market Fund. Participants can elect to have their contributions to the Plan and Company Core Contributions invested in the following funds:

Money Market Fund (Fidelity Money Market Trust Retirement Government Money Market Portfolio)
This fund seeks to provide as high a level of current income as is consistent with the preservation of principal and liquidity, by investing primarily in U.S. government securities and repurchase agreements.

AIR PRODUCTS AND CHEMICALS, INC.
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Life Cycle Funds (SSgA Target Retirement Income Securities Lending Series Fund Class II, SSgA Target Retirement 2010 Securities Lending Series Fund Class II, SSgA Target Retirement 2015 Securities Lending Series Fund Class II, SSgA Target Retirement 2020 Securities Lending Series Fund Class II, SSgA Target Retirement 2025 Securities Lending Series Fund Class II, SSgA Target Retirement 2030 Securities Lending Series Fund Class II, SSgA Target Retirement 2035 Securities Lending Series Fund Class II, SSgA Target Retirement 2040 Securities Lending Series Fund Class II, SSgA Target Retirement 2045 Securities Lending Series Fund Class II, SSgA Target Retirement 2050 Securities Lending Series Fund Class II, and SSgA Target Retirement 2055 Securities Lending Series Fund Class II available on or after 1 June 2012) – These funds of funds invest in a portfolio of index commingled funds tracking U.S. stocks, U.S. bonds, and international stocks. The allocation of assets shifts from one weighted more heavily to stocks to one more heavily weighted to bonds as the target date approaches and continues this transition for five additional years.

Corporate Bond Fund (Western Asset Core Plus Bond Portfolio Financial Fund Class I) – This mutual fund seeks to maximize total return by investing in intermediate-term (duration of three to seven years) U.S. dollar-denominated fixed income securities issued by domestic and foreign entities.

Bond Index Fund (Vanguard Total Bond Market Index Fund) (available on or after 1 June 2012) – This mutual fund seeks to track the performance of a broad, market-weighted bond index. The fund employs a “passive management,” or indexing investment approach, designed to track the performance of the Barclays Capital U.S. Aggregate Float Adjusted Index.

Balanced Fund (Dodge & Cox Balanced Fund) – This mutual fund seeks to provide regular income, conservation of principal, and an opportunity for long-term growth of principal and income through investments in a diversified portfolio of common stocks, preferred stocks, bonds, and cash equivalents.

S&P 500 Index Stock Fund

- (i) *SSgA S&P 500 Index Securities Lending Series Fund – Class II* (available prior to 1 June 2012) – This commingled fund seeks to provide investment results that parallel the performance results of the Standard and Poor’s 500 Index by investing in common stocks of companies that comprise this index.
- (ii) *Spartan 500 Index Fund* (available on or after 1 June 2012) – This mutual fund seeks to provide investment results that parallel the performance results of the Standard and Poor’s 500 Index by investing in common stocks of companies that comprise this index.

Extended Market Index Fund (Spartan Extended Market Index Fund) (available on or after 1 June 2012) – This mutual fund seeks to provide investment results that correspond to the total return of stocks of mid – to small-capitalization United States companies that are not included in the Standard and Poor’s 500 Index. The fund normally invests at least 80% of its assets in common stocks included in the Dow Jones U.S. Completion Total Stock Market Index.

AIR PRODUCTS AND CHEMICALS, INC.
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Mid Cap Core Fund (Principal MidCap Blend Fund) (available on or after 1 June 2012) – This mutual fund seeks long-term growth of capital by investing primarily in common stocks and other equity securities of medium-capitalization companies. It normally invests at least 80% of net assets in companies with market capitalizations similar to those of companies in the Russell Midcap Index.

Large Cap Value Fund (Vanguard Windsor II Fund Class Admiral) – This mutual fund seeks to generate long-term growth of capital as well as income from dividends. This fund invests in common stocks of large companies that the fund’s management believes are out of favor or undervalued.

Large Cap Growth Fund

- (i) *American Funds Growth Fund of America Fund Class R5* (available prior to 1 June 2012) – This mutual fund seeks long-term growth of principal within the arena of large capitalization growth stocks.
- (ii) *JPMCB Large Cap Growth Trust* (available on or after 1 June 2012) – This commingled fund seeks long-term capital appreciation by investing in a diversified portfolio of equity securities of companies with market capitalizations similar to those within the universe of the Russell 1000 Growth Index (the Benchmark) and attempts to outperform the Benchmark over a full market cycle.

International Stock Funds

- (i) *Fidelity International Discovery Fund Class K* – This mutual fund invests a majority of its assets in non-U.S. common stocks, with a focus on those that pay current dividends and that the fund’s management believes show potential for capital appreciation. The fund may opportunistically invest in non-U.S. debt securities, including lower-quality debt securities.
- (ii) *Vanguard Total International Stock Index Fund* (available on or after 1 June 2012) – This mutual fund seeks to track the performance of the MSCI All Country World ex USA Investable Market Index, an index designed to measure equity market performance in developed and emerging markets, excluding the United States. The fund employs a “passive management” or indexing-investment approach.

Small Capitalization Equity Fund (Pyramis Small Capitalization Core Commingled Pool) – This commingled fund seeks long-term capital growth within the arena of domestic small capitalization companies.

Company Stock Fund (Common Stock of Air Products and Chemicals, Inc.) – This fund is a nondiversified investment option designed to provide participants with an opportunity to share in the potential growth of the Company’s common stock. This fund is a nonleveraged employee stock ownership plan within the Plan allowing participants to have dividends reinvested in their Company Stock Fund account or to receive quarterly dividend checks. Interest-bearing cash held in the fund is presented separately as a short-term investment.

**AIR PRODUCTS AND CHEMICALS, INC.
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Fixed Income Securities Fund (Stable Value Fund) – This fund invests in a diversified portfolio of high-quality bonds that are “wrapped” by high-quality financial institutions that guarantee principal and a predetermined interest rate yield. This fund also invests in traditional investment contracts with insurance companies and banks that guarantee principal and a predetermined interest rate yield.

Self-Directed Brokerage Account (Fidelity BrokerageLink) – A brokerage account that offers a range of Fidelity and Non-Fidelity mutual funds. Interest-bearing cash held in the account is presented separately as a short-term investment.

Participant changes to investment elections can apply to future contributions, accumulated saving, or both. Participant investment election changes completed by 4 p.m. (Eastern Time) are effective the same New York Stock Exchange (NYSE) business day and are reflected in the participant’s accounts the next NYSE business day.

Participants may not redirect accumulated savings directly from the Fixed Income Securities Fund to the Money Market Fund or to Fidelity BrokerageLink.

The fair value of individual investments that represent 5% or more of the Plan’s total net assets available for benefits as of 30 September 2013 and 2012 was as follows:

<u>Investment</u>	<u>2013</u>	<u>2012</u>
	(In thousands)	
Corporate Bond Fund	\$ *	116,692
Balanced Fund	146,561	123,261
S&P 500 Index Stock Fund	140,534	119,490
International Stock Fund	103,578	84,982
Small Capitalization Equity Fund	120,019	88,329
Large Cap Value Fund	206,975	184,645
Company Stock	386,895	384,286
Fixed Income Securities Fund	239,761	231,970

* Investment did not exceed 5% of net assets available for benefits at 30 September 2013.

(2) Summary of Accounting Policies

(a) Basis of Accounting

The financial statements have been prepared on the accrual basis of accounting. The Company has elected to file these financial statements with the Securities and Exchange Commission prepared in conformity with guidelines issued under ERISA, as amended.

Fully benefit-responsive contracts held in the Fixed Income Securities Fund are included in the financial statements at fair value and are then adjusted to contract value in determining net assets available for benefits.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

30 September 2013 and 2012

(b) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of net assets and liabilities and changes therein, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

(c) Investment Valuation and Income Recognition

The Plan's investments are stated at fair value. Quoted market prices are used to value investments. Shares of mutual and commingled funds are valued at the net asset value (NAV) of shares held by the Plan at year-end. The investments are using NAV as a practical expedient for fair value.

The fair value of the contracts held in the Fixed Income Securities Fund is calculated by discounting the related cash flows based on current yields of similar instruments with comparable durations (note 4). See note 3 for disclosure of the Plan's fair value measurements.

Purchases and sales are recorded on a trade-date basis. Interest is recorded on an accrual basis. Dividends are recorded on the ex-dividend date.

(d) Risks and Uncertainties

Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility risks. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and could materially impact participants' account balances and the amounts reported in the accompanying statements of net assets available for benefits. The Plan's exposure to a concentration of credit risk is dependent upon the investment allocations selected by the Plan's participants. At 30 September 2013 and 2012, 21% and 24% of the Plan's net assets, respectively, were invested in the common stock of the Company. The underlying value of the Company's stock is impacted by the performance of the Company, the market's evaluation of such performance, and other factors.

(e) Payment of Benefits

Benefits are recorded when paid.

(f) Recent Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2010-06, *Improving Disclosures about Fair Value Measurements*, amending Accounting Standards Codification (ASC) No. 820, *Fair Value Measurements* (ASC 820). The guidance requires disclosure of transfers of assets and liabilities between Levels 1 and 2 of the fair value hierarchy, and information on purchases, sales, issuances, and settlements on a gross basis in the reconciliation of the assets and liabilities measured under Level 3 of the fair value hierarchy. The amendment also clarifies existing disclosure requirements on levels of disaggregation and disclosures about inputs and valuation techniques. The guidance was effective for the Plan's financial statements for the year ended 30 September 2012, except for the disclosure requirements on

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

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30 September 2013 and 2012

Level 3 activity, which was effective for the Plan's financial statements for the year ended 30 September 2013. The adoption did not materially affect the Plan's financial statements.

In May 2011, ASC 820 was further amended with the issuance by the FASB of ASU 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*. The amendment changes certain fair value measurement principles, clarifies the application of existing fair value measurements, and expands the disclosure requirements, particularly for Level 3 fair value measurements. This amendment is to be applied prospectively and was effective for the Plan year beginning 1 October 2012. The adoption of the amendment did not have a material effect on the Plan's financial statements.

(3) Fair Value Measurements

Fair value is defined as an exit price (i.e., the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date). The three-level fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value includes:

- Level 1 – Quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 – Inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the asset or liability; and
- Level 3 – Inputs that are unobservable for the asset or liability based on the Company's own assumptions (about the assumptions market participants would use in pricing the asset or liability).

If the inputs used to measure the financial assets and liabilities fall within more than one level described above, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument.

Within the Plan, investments are recorded at fair value as follows:

(a) Mutual Funds

The Mutual funds are valued at their respective NAV. The NAV is based on the value of the underlying assets owned by the funds, less their liabilities then divided by the number of shares outstanding. The NAV is quoted in an active market and, therefore, presented as a Level 1 asset.

(b) Company Stock Fund

The Company Stock Fund is valued based on the number of shares held by the Plan at year-end multiplied by the closing price of the Company's stock on the New York Stock Exchange and, therefore, presented as a Level 1 asset.

(c) Commingled Funds

Commingled funds are valued at NAV, determined by each fund's trustee based on the fair value of the underlying securities within the funds, which are traded on active markets and presented as a Level 2 asset.

**AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN**

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(d) Fixed Income Securities Fund

The Fixed Income Securities Fund comprises both the fair value of traditional investment contracts and short – to intermediate-term fixed income securities that are included in commingled funds, which are wrapped by third-party financial institutions. The fair value of the traditional investment contracts and wrap contracts is calculated based on the discounted present value of the differences between the replacement cost and actual cost of the contracts. The fair value of the underlying short – to intermediate-term fixed income securities held by the commingled funds is based upon the NAV. Similar to the commingled funds noted above, the underlying securities are traded on active markets. As the fair value of the traditional investment contracts and wrap contracts represents an insignificant portion of the total value of the Fixed Income Securities Fund, the fund itself has been presented as a Level 2 asset.

(e) Investments Measured at Fair Value

Investments measured at fair value at 30 September 2013 and 2012 are summarized below (in thousands):

		30 September 2013			
		Total	Level 1	Level 2	Level 3
Assets:					
Interest-bearing cash	\$	15,610	15,610		
Money Market Fund		39,449	39,449		
Mutual Funds		787,495	787,495		
Company Stock		386,895	386,895		
Commingled Funds		377,607		377,607	
Fixed Income Securities Fund		239,761		239,761	
Total investments	\$	<u>1,846,817</u>	<u>1,229,449</u>	<u>617,368</u>	<u>—</u>
		30 September 2012			
		Total	Level 1	Level 2	Level 3
Assets:					
Interest-bearing cash	\$	12,714	12,714	—	—
Money Market Fund		30,100	30,100	—	—
Mutual Funds		670,277	670,277		
Company Stock		384,286	384,286		
Commingled Funds		278,363	—	278,363	—
Fixed Income Securities Fund		231,970	—	231,970	—
Total investments	\$	<u>1,607,710</u>	<u>1,097,377</u>	<u>510,333</u>	<u>—</u>

For the years ended 30 September 2013 and 30 September 2012, there were no significant transfers in or out of Levels 1 or 2.

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(4) Fixed Income Securities Fund

Contributions made to the Fixed Income Securities Fund (Fund) are invested in traditional investment contracts with insurance companies and other financial institutions, and short – to intermediate-term fixed income securities or portfolios that are “wrapped” by third-party financial institutions that guarantee principal and a predetermined interest rate yield. The contract issuers of the traditional investment contracts and the wrap providers are highly rated financial institutions. The contracts held in this Fund are deemed fully benefit-responsive as they provide that the Plan’s participants may make withdrawals at contract value. As described in note 2, because the contracts are deemed fully benefit-responsive, contract value is the relevant measurement attributable for the contracts held in the Fund. Contract value represents contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses.

The Fund’s contracts are included in the accompanying statements of net assets available for benefits at fair value, and are then adjusted to contract value in determining net assets available for benefits. The contract value of the contracts in this portfolio was \$235,191,000 and \$221,651,000 at 30 September 2013 and 2012, respectively.

No valuation reserves were recorded against the contract value for credit risk of the contract issuers or otherwise for the Fund at 30 September 2013 and 2012. The average annualized yield was 1.26% and 0.84% as of 30 September 2013 and 2012, respectively. The Fund’s annualized crediting interest rates as of 30 September 2013 and 2012 were 1.51% and 2.02%, respectively. The crediting interest rate is based on the provisions agreed upon with the issuer, which reset monthly, but it may not be less than zero.

Key factors that could influence future average interest crediting rates include, but are not limited to: Plan cash flows, changes in interest rates, total return performance of the bond strategies underlying each of the Fund’s contracts, and default or credit failures of any of the securities, investment contracts, or other investments held in the Fund.

Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. Certain events, although considered unlikely and not probable, such as a change in administration or operation of the Plan or Fund, group terminations, layoffs, or exclusion of group eligibility in the Plan, may limit the ability of participants to access their investments at contract value. The contract issuers may terminate the contracts in the unlikely event of a default by the Plan.

(5) Income Tax Status

The Internal Revenue Service (IRS) has determined and informed the Company, by letter dated 13 September 2013, that the Plan and related trust are designed in accordance with applicable sections of the IRC. Although the Plan has been amended since receiving the determination letter, the Plan Administrator and the Plan’s tax counsel believe that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC and, therefore, believe that the Plan is qualified and the related trust is tax-exempt.

U.S. generally accepted accounting principles require Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely

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than not would not be sustained upon examination by the IRS. The Plan Administrator has analyzed the tax positions taken by the Plan, and has concluded that as of 30 September 2013, there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan Administrator believes it is no longer subject to income tax examinations for years prior to 2008.

(6) Expenses of the Plan

All reasonable third-party fees and expenses for administration of the Plan have been paid by the Plan, including (but not limited to) trustee fees, record-keeping fees, audit fees, proxy voting fees, and communication expenses. Such expenses may be assessed to participant accounts as a quarterly administrative charge. Expenses incident to the management of the Plan's investments are deducted from the earnings of the respective investments.

(7) Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of plan termination, the entire amount credited to each participant's account will be fully vested.

(8) Net Change in Fair Value of Investments

The net appreciation (depreciation) in fair values of investments (including gains and losses on investments bought and sold, as well as held during the year) for the years ended 30 September 2013 and 2012 is as follows:

	2013	2012
	(In thousands)	
Life Cycle Funds	\$ 15,662	18,855
Corporate Bond Fund	(4,298)	5,843
Bond Index Fund	(223)	11
Balanced Fund	22,707	23,763
S&P 500 Index Stock Fund	20,089	27,678
Extended Market Index Fund	1,522	51
Mid Cap Core Fund	3,008	144
Large Cap Growth Fund	11,039	12,458
International Stock Funds	18,094	13,028
Large Cap Value Fund	31,923	40,602
Small Capitalization Equity Fund	30,072	26,222
Company Stock Fund	99,635	33,081
Fixed Income Securities Fund	3,693	4,521
Self-Directed Brokerage Account	3,011	3,582
	\$ 255,934	209,839

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(9) Related-Party Transactions

The Plan holds common stock of the Company, representing qualifying equity securities as defined by ERISA, valued at \$386,895,000 and \$384,286,000, representing 21% and 24% of net assets available for plan benefits at 30 September 2013 and 2012, respectively.

The Plan invests in funds managed by Fidelity valued at \$499,265,000 and \$381,393,000 representing 27% and 24% of net assets available for plan benefits at 30 September 2013 and 2012, respectively.

(10) Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements at 30 September 2013 and 2012 to Form 5500:

	2013	2012
	(In thousands)	
Net assets available for benefits per the financial statements	\$ 1,864,818	1,618,135
Adjustment from contract value to fair value for fully benefit-responsive investment contracts	4,570	10,319
Amounts allocated to withdrawing participants	(3,366)	(3,407)
Net assets available for benefits per Form 5500	\$ 1,866,022	1,625,047

The following is a reconciliation of benefits paid to participants per the financial statements for the year ended 30 September 2013 to Form 5500:

	2013
	(In thousands)
Distributions to participants per the financial statements	\$ 129,859
Amounts allocated to withdrawing participants at 30 September 2013	3,366
Amounts allocated to withdrawing participants at 30 September 2012	(3,407)
Distributions to participants per Form 5500	\$ 129,818

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The following is a reconciliation of the increase in net assets per the financial statements for the year ended 30 September 2013 to Form 5500:

	<u>2013</u>
	(In thousands)
Increase in net assets per the financial statements	\$ 246,683
Change in the adjustment from contract value to fair value for fully benefit-responsive investment contracts	(5,749)
Change in amounts allocated to withdrawing participants	<u>41</u>
Net increase per Form 5500	<u>\$ 240,975</u>

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Schedule H, Line 4(i) – Schedule of Assets (Held at end of Year)

30 September 2013

(In thousands)

Identity of issue	Description	Current value
* Fidelity Trust Management Company: Interest-bearing cash	Cash	\$ 15,610
* Money Market Fund: Fidelity Money Market Trust Retirement Government Money Market Portfolio	Money market fund; par value	39,449
Life Cycle Funds (Lending Series Fund Class II):		
SSgA Target Retirement Income Securities	Commingled investment pool	4,402
SSgA Target Retirement 2010 Securities	Commingled investment pool	6,039
SSgA Target Retirement 2015 Securities	Commingled investment pool	27,208
SSgA Target Retirement 2020 Securities	Commingled investment pool	45,606
SSgA Target Retirement 2025 Securities	Commingled investment pool	21,346
SSgA Target Retirement 2030 Securities	Commingled investment pool	33,575
SSgA Target Retirement 2035 Securities	Commingled investment pool	8,338
SSgA Target Retirement 2040 Securities	Commingled investment pool	21,351
SSgA Target Retirement 2045 Securities	Commingled investment pool	7,225
SSgA Target Retirement 2050 Securities	Commingled investment pool	6,678
SSgA Target Retirement 2055 Securities	Commingled investment pool	1,999
Corporate Bond Fund: Western Asset Core Plus Bond Portfolio Financial Fund Class I	Mutual fund shares: 8,220,189 shares	92,395
Bond Index Fund: Vanguard Total Bond Market Index Fund	Mutual fund shares: 587,400 shares	6,262
Balanced Fund: Dodge and Cox Balanced Fund	Mutual fund shares: 1,608,085 shares	146,561
* S&P 500 Index Stock Fund: Spartan 500 Index Fund	Mutual fund shares: 2,346,542 shares	140,534
* Extended Market Index Fund: Spartan Extended Market Index Fund	Mutual fund shares: 287,469 shares	14,508
Mid Cap Core Fund: Principal MidCap Blend Fund	Mutual fund shares: 1,418,806 shares	27,511
Large Cap Value Fund: Vanguard Windsor II Fund Class Admiral	Mutual fund shares: 3,361,075 shares	206,975
Large Cap Growth Fund: JPMCB Large Cap Growth Fund	Commingled investment pool	73,821
International Stock Funds:		
* Fidelity International Discovery Fund Class K	Mutual fund shares: 2,702,275 shares	103,578
Vanguard Total International Stock Index Fund	Mutual fund shares: 155,309 shares	5,021
* Small Capitalization Equity Fund: Pyramis Small Capitalization Core Commingled Pool	Commingled investment pool	120,019
* Company Stock: Air Products and Chemicals, Inc. Common Stock	Common stock: 3,630,435 shares Historical cost: \$214,785	386,895
Fixed Income Securities Fund: Invesco Stable Value Fund	Guaranteed investment contracts, 1.26% (average yield) in 2013	239,761
* Self-Directed Brokerage Account: Fidelity BrokerageLink	Brokerage account for many publicly available mutual funds	44,150
Total investments		<u>\$ 1,846,817</u>
* Participant loans	Interest rates ranging from 4.25% to 12.5% with various maturity dates	<u>\$ 19,517</u>
* Represents investments with a party in interest		

See accompanying independent auditors' report.