

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 11-K

FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS AND SIMILAR PLANS PURSUANT TO
SECTION 15(d) OF THE SECURITIES AND 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 31 December 2021

OR

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

For the transition period from _____ to _____

Commission file number 001-04534

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.
1940 AIR PRODUCTS BOULEVARD
ALLENTOWN, PA 18106-5500**

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Table of Contents

<u>Report of Independent Registered Public Accounting Firm</u>	1
Financial Statements	
<u>Statements of Net Assets Available for Benefits as of 31 December 2021 and 2020</u>	2
<u>Statement of Changes in Net Assets Available for Benefits for the Year Ended 31 December 2021</u>	3
<u>Notes to Financial Statements as of 31 December 2021 and 2020, and for the Year Ended 31 December 2021</u>	4
Supplemental Schedule	
<u>Schedule H, Part IV, Line 4(i) – Schedule of Assets (Held at End of Year) as of 31 December 2021</u>	14
<u>Index to Exhibit</u>	15
<u>Signature</u>	16

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 ("ERISA") have been omitted because there is no information to report.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Plan Participants and Plan Administrator of Air Products and Chemicals, Inc. Retirement Saving Plan

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of Air Products and Chemicals, Inc. Retirement Saving Plan (the "Plan") as of 31 December 2021 and 2020, the related statement of changes in net assets available for benefits for the year ended 31 December 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of 31 December 2021 and 2020, and the changes in net assets available for benefits for the year ended 31 December 2021, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on the Plan's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Plan in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Report on Supplemental Schedule

The supplemental schedule of assets (held at end of year) as of 31 December 2021 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental schedule is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental schedule reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental schedule. In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, including its form and content, is presented in compliance with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, such schedule is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
22 June 2022

We have served as the auditor of the Plan since 2019.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN
Statements of Net Assets Available for Benefits
As of 31 December 2021 and 2020
(In thousands)

	2021	2020
Assets:		
Participant-directed investments at fair value:		
Interest-bearing cash	\$8,324	\$7,459
Money market fund	42,805	48,875
Mutual funds	852,389	708,045
Commingled funds	1,079,978	980,192
Company stock	573,271	538,055
Self-directed brokerage account	73,850	64,030
Total participant-directed investments at fair value	2,630,617	2,346,656
Fully benefit-responsive investment contracts at contract value:		
Fixed income securities fund	188,617	192,742
Receivables:		
Notes receivable from participants	14,890	14,534
Employer contributions receivable	997	781
Accrued interest and dividends	295	391
Other receivables	204	89
Total receivables	16,386	15,795
Total assets	2,835,620	2,555,193
Liabilities:		
Payables and accrued liabilities	60	63
Total liabilities	60	63
Net assets available for benefits	\$2,835,560	\$2,555,130

See notes to financial statements.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Statement of Changes in Net Assets Available for Benefits
For the Year Ended 31 December 2021
(In thousands)

	2021
Additions:	
Contributions:	
Participant contributions	\$62,794
Company matching contributions	18,627
Company core contributions	18,998
Total contributions	100,419
Investment income:	
Interest income	770
Dividend income	59,714
Net appreciation in the fair value of investments	310,395
Total investment income	370,879
Total additions	471,298
Deductions:	
Distributions to participants	190,491
Administrative expenses	377
Total deductions	190,868
Net increase	280,430
Net assets available for benefits:	
Beginning of year	2,555,130
End of year	\$2,835,560

See notes to financial statements.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

(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. Capitalized terms used herein but not defined herein have the meanings set forth in the Plan.

(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 hourly employees of the Company and designated subsidiaries. The Plan permits participation by employees whose terms and conditions of employment are covered by the terms of a collective bargaining agreement provided such collective bargaining agreement provides for Plan participation. Participants of the Plan are entitled to make before-tax contributions and Roth 401(k) 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 Audit and 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, retirement savings, or welfare benefits, in accordance with its delegation with respect to the Company's pension, retirement savings, and welfare benefit plans. The Chairman has delegated some of this authority to the Senior Vice President and Chief Human Resources Officer, who has established a Benefits Committee to have fiduciary responsibility for appeals of the denial of benefits in an ERISA plan. The "Plan Administrator" means the Senior Vice President and Chief Human Resources Officer, or such other person he or she shall appoint to fill such role. The Audit and Finance Committee appointed the Pension Investment Committee to supervise, monitor and review the investment performance of the Plan's assets. Fidelity Management Trust ("Fidelity") is the trustee of the Plan. As appointed by the Pension Investment Committee, Willis Towers Watson also serves as the investment consultant under the ERISA definition of a 3(21) investment advisor. The Pension Investment Committee also appoints various external investment managers for the management of the Plan's assets.

(c) Participant Accounts

Individual accounts are maintained for each participant of the Plan. Each participant's account is credited with the participant's contributions, Company contributions, and allocations of the Plan's earnings. Participant accounts are also charged with withdrawals and an allocation of Plan losses and administrative expenses. Allocations are based on investment elections made by the participant. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account balance.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

(d) Contributions

Subject to certain IRC restrictions, participants may elect to contribute to the Plan on a before-tax 401(k) basis or after-tax Roth 401(k) basis from 3% to 50%, in whole percentages, of each participant's 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.

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).

The Plan is required to return contributions received during the Plan year in excess of the IRC limits.

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 and in accordance with IRC Section 401(a). 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., (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, or (6) an employee covered by the terms of a collective bargaining agreement whose terms provide for a Company core contribution after 31 October 2017.

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;
- 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 using the Enhanced Formula as follows:

- \$0.75 for each \$1.00 of the first 4% of base pay that is contributed; plus
- \$0.50 for each \$1.00 of the next 2% of base pay that is contributed.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

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 using the Regular Formula as follows:

- \$0.75 for each \$1.00 of the first 3% of base pay that is contributed; plus
- \$0.25 for each \$1.00 of the next 3% of base pay that is contributed.

Catch-up contributions are not eligible for matching contributions.

Company matching contributions are invested in the Company's common stock ("Company stock"). Company matching contributions may be transferred by the Plan's participants to any of the Plan's other investment options at any time. As such, Company stock is deemed participant directed.

On an annual basis, the Company shall ensure that a participant's Company matching contribution is equal to the maximum contribution the participant would receive under the Enhanced Formula for Company core contribution participants and the Regular Formula for all other eligible participants for the calendar year based upon the participant's before-tax and Roth 401(k) Contributions for the entire calendar year. Effective 31 December 2021, Company matching contributions will apply to participants who are employed by the Company on the last day of the Plan Year. Additional Company matching contributions to provide participants with their maximum amount were \$997,000 and \$781,000 for 2021 and 2020, respectively, and are reflected on the statements of net assets available for benefits within "Employer contributions receivable."

(e) Contribution Percentage Changes

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

(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, Company core contributions, and earnings thereon.

(h) Forfeitures

Forfeitures can be used by the Company to reduce the costs of administering the Plan. There were \$43,000 of forfeitures used to reduce the costs of administering the Plan in 2021. There were \$336,000 and \$433,000 of unallocated forfeitures at 31 December 2021 and 2020, respectively.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

(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, Roth 401(k) 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 participant is not required to take a plan loan from any plan maintained by the Company or an Affiliated Company, as defined by IRC section 414, in order to obtain a hardship distribution. 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. Hardship distribution provisions treat expenses and losses (including loss of income) incurred by a participant on account of a disaster as an immediate and heavy financial need. The disaster must be declared by the Federal Emergency Management Agency (“FEMA”) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 100-707, and the participant’s principal residence or principal place of employment at the time of the disaster must be located in an area designated by FEMA for individual assistance with respect to the disaster;
 - (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, Roth 401(k), after-tax, catch-up, Company matching contributions, and 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. Participants may continue to repay any outstanding loan balances; any outstanding loan balance which is not repaid within 90 days will be treated as a taxable distribution. At the discretion of the Plan Administrator, 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 rollover distributions directly into another qualified plan or an Individual Retirement Account.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

A participant's entire account balance is required to be distributed at the earlier of age 72 or 10 years following a participant's death, regardless of whether the participant dies before, on, or after the age for required minimum distributions to begin.

(j) Notes Receivable from Participants

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 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 31 December 2021, ranged from 4.25% to 10.50% with maturities through 2046.

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.

Plan participant loans may be directly rolled over to a qualified plan of a subsequent employer of the participant pursuant to an agreement between the Company and the subsequent employer at the discretion of the Plan Administrator. In addition, loan participants may repay an amount toward the outstanding loan balance at any time in accordance with the procedures established by the Plan Administrator.

(k) Investment Directions

Participant investment fund elections can be made in increments of 1% provided the percentages total 100%. Designated default funds for the Plan are the State Street Global Advisor Target Retirement Date Funds. Company matching contributions are invested in Company stock, 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 as defined in the Summary Plan Description, 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 a money market fund, mutual funds, Company stock, commingled funds, and a fixed income securities fund offered by the Plan. Participants may also direct their investments through a trustee sponsored brokerage account ("Fidelity BrokerageLink"), which offers the option to invest in a range of Fidelity and non-Fidelity mutual funds. Interest-bearing cash held in the Fidelity BrokerageLink account is presented separately on the statements of net assets available for benefits.

Participant changes to investment elections can apply to future contributions, accumulated savings, 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 account 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.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

(2) Summary of Significant Accounting Policies

(a) Basis of Accounting

The financial statements and accompanying footnotes were prepared on the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America ("GAAP"). 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.

(b) Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of net assets, 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, except for fully benefit-responsive contracts which are carried at contract value (see Note 4, *Fixed Income Securities Fund*, for additional information). Quoted market prices are used to value investments.

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. Net appreciation on the statement of changes in net assets available for benefits includes the Plan's gains and losses on investments bought and sold as well as held during the year.

(d) Risks and Uncertainties

Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility risks. Market risks include global events which could impact the value of investment securities, such as a pandemic or international conflict. 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 31 December 2021 and 2020, 20% and 21%, respectively, of the Plan's net assets available for benefits were invested in the Company stock. 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. Amounts allocated to accounts of participants who have elected to withdraw from the Plan, but have not yet been paid, were \$1,000 at 31 December 2021. There was \$607,000 allocated to accounts of participants who elected to withdraw from the Plan, but that had not yet been paid at 31 December 2020.

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

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

(3) Fair Value Measurements

Fair value is defined as an exit price, or 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 fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows:

- *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.
- *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:

Interest-bearing Cash and Money Market Fund

The carrying amounts of cash and cash equivalents approximate fair value due to short-term maturity.

Mutual Funds

Shares of mutual funds are valued at the daily closing price as reported by the fund. The mutual funds are required to publish their daily net asset value ("NAV") and to transact at that price. The mutual funds are deemed to be actively traded and are classified as Level 1 assets.

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. The commingled funds are not subject to redemption restrictions and are presented as a Level 1 asset.

Company Stock

Company stock is valued based on the number of shares held by the Plan at period-end multiplied by the closing price of the Company's stock on the NYSE and, therefore, presented as a Level 1 asset.

Fixed Income Securities Fund

The fixed income securities fund invests in fully-benefit responsive investment contracts that are held at contract value. See Note 4, *Fixed Income Securities Fund*, for additional information on the fund.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

Investments Measured at Fair Value

Investments measured at fair value at 31 December 2021 and 2020 are summarized below (in thousands):

	31 December 2021			
	Total	Level 1	Level 2	Level 3
Assets				
Interest-bearing cash	\$8,324	\$8,324	\$—	\$—
Money market fund	42,805	42,805	—	—
Mutual funds	926,239	926,239	—	—
Commingled funds	1,079,978	1,079,978	—	—
Company stock	573,271	573,271	—	—
Total investments at fair value	\$2,630,617	\$2,630,617	\$—	\$—

Investments measured at contract value:

Fixed income securities fund	188,617
Total Investments	\$2,819,234

	31 December 2020			
	Total	Level 1	Level 2	Level 3
Assets				
Interest-bearing cash	\$7,459	\$7,459	\$—	\$—
Money market fund	48,875	48,875	—	—
Mutual funds	772,075	772,075	—	—
Commingled funds	980,192	980,192	—	—
Company stock	538,055	538,055	—	—
Total investments at fair value	\$2,346,656	\$2,346,656	\$—	\$—

Investments measured at contract value:

Fixed income securities fund	192,742
Total Investments	\$2,539,398

(4) Fixed Income Securities Fund

Contributions made to the fixed income securities fund (the "Fund") can be invested in varying allocations of 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 the Fund are currently synthetic and deemed fully benefit-responsive as they provide that the Plan's participants may make withdrawals at contract value. As described in Note 2, *Summary of Significant Accounting Policies*, contract value is the relevant measurement attributable for the contracts held in the Fund because the contracts are deemed fully benefit-responsive. Contract value represents contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses.

No valuation reserves were recorded against the contract value for credit risk of the contract issuers or otherwise for the Fund at 31 December 2021 and 2020.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

Key factors that could influence future average interest crediting rates include, but are not limited to the following: the Fund's 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 the 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 16 February 2017, that the Plan is designed in accordance with applicable sections of the IRC. The determination letter covered Plan amendments adopted through 14 December 2015. 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 as tax-exempt.

(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, investment consulting 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.

(8) Related-Party Transactions

The Plan holds Company stock, representing qualifying equity securities as defined by ERISA. The Plan held Company stock valued at \$573,271,000 and \$538,055,000 at 31 December 2021 and 2020, representing 20% and 21% of net assets available for benefits, respectively. At 31 December 2021 and 2020, the Plan held 1,884,079 and 1,969,240 shares with a cost basis of \$218,328,000 and \$207,734,000, respectively, of Company stock. During the Plan year ended 31 December 2021, the Plan recorded dividend income of \$11,185,000 received from dividends on Company stock.

Plan investments include shares of funds managed by Fidelity. Fidelity is the trustee and record keeper, as defined by the Plan. Therefore, these transactions qualify as exempt party-in-interest transactions. Fees paid for investment management services were included as a reduction of the return earned on each fund. The Plan's investments in funds managed by Fidelity are valued at \$694,410,000 and \$595,390,000 at 31 December 2021 and 2020, representing 24% and 23% of net assets available for benefits, respectively.

The Plan also issues loans to participants, which are secured by the vested balances in the participants' accounts.

AIR PRODUCTS AND CHEMICALS, INC.
RETIREMENT SAVINGS PLAN

Notes to Financial Statements

As of 31 December 2021 and 2020, and for the Year Ended 31 December 2021

(9) Reconciliations of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements at 31 December 2021 and 2020 to Form 5500:

	2021	2020
	(In thousands)	
Net assets available for benefits per the financial statements	\$2,835,560	\$2,555,130
Adjustment from contract value to fair value for fully benefit-responsive investment contracts	4,008	9,598
Amounts allocated to withdrawing participants	(1)	(607)
Net assets available for benefits per Form 5500	\$2,839,567	\$2,564,121

The following is a reconciliation of benefits paid to participants per the financial statements for the year ended 31 December 2021 to the Form 5500:

	2021
	(In thousands)
Distributions to participants per the financial statements	\$190,491
Amounts allocated to withdrawing participants at 31 December 2021	1
Amounts allocated to withdrawing participants at 31 December 2020	(607)
Distributions to participants per Form 5500	\$189,885

The following is a reconciliation of the net increase in net assets per the financial statements for the year ended 31 December 2021 to the Form 5500:

	2021
	(In thousands)
Increase in net assets per the financial statements	\$280,430
Change in the adjustment from contract value to fair value for fully benefit-responsive investment contracts	(5,590)
Change in amounts allocated to withdrawing participants	606
Net increase per Form 5500	\$275,446

Air Products and Chemicals, Inc. Retirement Savings Plan
Employer ID No: 23-1274455, Plan No: 001
Schedule H, Part IV, Line 4(i) – Schedule of Assets (Held at End of Year)
As of 31 December 2021
(In thousands except for share data)

Identity of issue	Description	Current value
Interest-bearing cash:		
* Fidelity Trust Management Company	Cash	\$8,324
Money Market Fund:		
* Fidelity Investments Money Market Government Portfolio - Institutional Class	Money market fund; par value	42,805
Life Cycle Funds (Lending Series Fund Class V):		
SS Target Retirement Income Securities	Commingled investment pool	30,979
SS Target Retirement 2020 Securities	Commingled investment pool	59,189
SS Target Retirement 2025 Securities	Commingled investment pool	87,977
SS Target Retirement 2030 Securities	Commingled investment pool	117,088
SS Target Retirement 2035 Securities	Commingled investment pool	64,568
SS Target Retirement 2040 Securities	Commingled investment pool	75,158
SS Target Retirement 2045 Securities	Commingled investment pool	46,036
SS Target Retirement 2050 Securities	Commingled investment pool	41,717
SS Target Retirement 2055 Securities	Commingled investment pool	31,693
SS Target Retirement 2060 Securities	Commingled investment pool	9,953
SS Target Retirement 2065 Securities	Commingled investment pool	1,998
Corporate Bond Fund:		
Western Asset Core Plus Bond CIF R1	Commingled investment pool	82,259
Bond Index Fund:		
Vanguard Total Bond Market Index Fund	Mutual fund shares: 3,052,150	34,154
Balanced Fund:		
Dodge & Cox Balanced Fund	Mutual fund shares: 1,248,155	136,560
S&P 500 Index Fund:		
* Fidelity 500 Index Fund	Mutual fund shares: 1,806,899	298,717
Extended Market Index Fund:		
* Fidelity Extended Market Index Fund	Mutual fund shares: 531,268	46,332
Mid-Cap Core Fund:		
Principal Funds Inc. MidCap Fund Institutional Class	Mutual fund shares: 2,039,527	85,354
Large Cap Value Fund:		
Vanguard Windsor II Fund Admiral	Mutual fund shares: 2,712,355	222,061
Large Cap Growth Fund:		
JPMCB Large Cap Growth Fund	Commingled investment pool	213,462
International Stock Funds:		
* Fidelity International Discovery Commingled Pool	Commingled investment pool	84,392
Vanguard Total International Stock Index Fund	Mutual fund shares: 213,581	29,211
Small Cap Core Fund:		
* FIAM Small Capitalization Core Commingled Pool	Commingled investment pool	133,509
Common Stock:		
* Air Products and Chemicals, Inc. Common Stock	Common stock shares: 1,884,079; Historical Cost: 218,328	573,271
Fixed Income Securities Fund:		
Invesco Stable Value Fund	Guaranteed investment contracts	192,625
Self-Directed Brokerage Account:		
* Fidelity BrokerageLink	Brokerage account for many publicly available mutual funds	73,850
	Total investments	\$2,823,242
* Participant loans	Interest rates ranging from 4.25% to 10.50% with various maturity dates	\$14,890

* Represents investments with a party-in-interest.

Note: Cost information not presented because investments are participant directed.

INDEX TO EXHIBIT

Exhibit No.	Description
23.1	Consent of Independent Registered Public Accounting Firm

SIGNATURE

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)

Date: 22 June 2022

By: /s/ Sean D. Major
Sean D. Major
Executive Vice President, General Counsel and
Secretary

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statement No. 333-204388 of Air Products and Chemicals, Inc. on Form S-8 of our report dated 22 June 2022, relating to the financial statements and supplemental schedule of Air Products and Chemicals, Inc. Retirement Savings Plan, appearing in the Annual Report on Form 11-K of Air Products and Chemicals, Inc. Retirement Savings Plan for the year ended 31 December 2021.

/s/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
22 June 2022