

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D. C. 20549**

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**FORM 11-K**

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

For the fiscal year ended December 31, 2018

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 001-12019

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

**Quaker Chemical Corporation  
Retirement Savings Plan**

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

Quaker Chemical Corporation  
One Quaker Park  
901 E. Hector Street  
Conshohocken, PA 19428-2380

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**QUAKER CHEMICAL CORPORATION**  
**Retirement Savings Plan**  
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## Report of Independent Registered Public Accounting Firm

Plan Administrator and Plan Participants  
Quaker Chemical Corporation Retirement Savings Plan  
Conshohocken, Pennsylvania

### Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of the Quaker Chemical Corporation Retirement Savings Plan (the "Plan") as of December 31, 2018 and 2017, the related statements of changes in net assets available for benefits for the years then ended, and the related notes (collectively, 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 December 31, 2018 and 2017, 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.

### 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. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risk 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 the Plan's management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

### Supplemental Information

The supplemental information in the accompanying Schedule of Assets (Held at End of Year) as of December 31, 2018 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is presented for the purpose of additional analysis and is not a required part of the financial statements but included supplemental 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 information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information 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 information. In forming our opinion on the supplemental information, we evaluated whether the supplemental information, including its form and content, is presented in conformity 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, the supplemental information is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ BDO USA, LLP

We have served as the Plan's auditor since 2012.

Philadelphia, Pennsylvania  
June 20, 2019

**QUAKER CHEMICAL CORPORATION  
RETIREMENT SAVINGS PLAN**

**STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS**

|  | As of December 31,    |                       |
|--|-----------------------|-----------------------|
|  | 2018                  | 2017                  |
| <b>Assets</b>                            |                       |                       |
| Investments:                             |                       |                       |
| Registered investment companies          | \$ 82,967,513         | \$ 86,461,772         |
| Vanguard Retirement Savings Master Trust | 13,976,759            | 12,518,131            |
| Quaker Chemical Corporation Stock Fund   | 43,622,392            | 39,165,893            |
| Participant-directed brokerage account   | 1,331,432             | 1,895,735             |
| Total investments                        | <u>141,898,096</u>    | <u>140,041,531</u>    |
| Receivables:                             |                       |                       |
| Employer's contributions                 | 163,476               | 140,382               |
| Participant notes receivable             | 1,838,851             | 1,703,522             |
| Total receivables                        | <u>2,002,327</u>      | <u>1,843,904</u>      |
| Net assets available for benefits        | <u>\$ 143,900,423</u> | <u>\$ 141,885,435</u> |

*The accompanying notes are an integral part of the financial statements.*

**QUAKER CHEMICAL CORPORATION  
RETIREMENT SAVINGS PLAN**

**STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS**

|  | For the Year Ended    |                       |
|--|-----------------------|-----------------------|
|  | December 31,          |                       |
|  | 2018                  | 2017                  |
| <b>Additions</b>                                     |                       |                       |
| Investment income:                                   |                       |                       |
| Interest and dividend income                         | \$ 4,286,197          | \$ 3,371,995          |
| Net (decrease) increase in fair value of investments | (1,655,390)           | 17,434,318            |
| Total investment income                              | <u>2,630,807</u>      | <u>20,806,313</u>     |
| Interest income, participant notes receivable        | 83,678                | 76,250                |
| Contributions:                                       |                       |                       |
| Employer   | 3,162,787             | 2,989,927             |
| Participant  | 5,344,961             | 4,881,964             |
| Total contributions                                  | <u>8,507,748</u>      | <u>7,871,891</u>      |
| Total additions                                      | <u>11,222,233</u>     | <u>28,754,454</u>     |
| <b>Deductions</b>                                    |                       |                       |
| Payment of benefits                                  | 9,207,245             | 9,152,088             |
| Total deductions                                     | <u>9,207,245</u>      | <u>9,152,088</u>      |
| Net increase   | 2,014,988             | 19,602,366            |
| Net assets available for benefits:                   |                       |                       |
| Beginning of year                                    | 141,885,435           | 122,283,069           |
| End of year  | <u>\$ 143,900,423</u> | <u>\$ 141,885,435</u> |

*The accompanying notes are an integral part of the financial statements.*

**Quaker Chemical Corporation**  
**Retirement Savings Plan**  
**Notes to Financial Statements**

**NOTE 1 – DESCRIPTION OF PLAN**

The following description of the Quaker Chemical Corporation Retirement Savings Plan (the “Plan”) provides only general information. The Plan document provides a complete description of the Plan’s provisions.

*General*

The Plan is a defined contribution plan for certain U.S. employees of Quaker Chemical Corporation (the “Company”) and participating employers (AC Products, Inc. (“AC”), Epmar Corporation (“Epmar”), Summit Lubricants, Inc. (“Summit”) and ECLI Products, LLC (“ECLI”). The Plan is administered by the Global Pension Committee, which is appointed by the Company’s Board of Directors, and is subject to the Employee Retirement Income Security Act of 1974 (“ERISA”).

Employees of the Company and adopting affiliates are eligible to participate in the Plan on their first day of employment or as soon as administratively practicable thereafter, unless specified differently in any bargaining unit agreement.

*Plan Amendment*

The Plan was amended pursuant to Amendment No. 4 effective April 1, 2018 to include certain technical language to comply with the final regulations issued by the Department of Labor regarding disability claims and appeals procedures. Additionally, pursuant to Amendment No. 4, the Plan was amended to (i) effective January 1, 2017, delete certain redundant provisions as a result of the merger between the Company and G.W. Smith & Sons, Inc. and to clarify that employees of ECLI are not eligible for certain contributions under the Plan, and (ii) effective January 1, 2019, modify the definition of “Compensation” to exclude moving expenses.

*Contributions*

Participants may elect to contribute on a before-tax and/or after-tax basis any whole percentage of their compensation as defined, up to 50%, during the year, not to exceed the annual Internal Revenue Code limits. At the discretion of the Global Pension Committee, the Plan matches 50% of the first 6% of compensation as defined that is contributed to the Plan, with a maximum matching contribution of 3% of compensation. No changes were made to the discretionary matching provision during 2018 or 2017. In addition, the Plan provides for non-elective nondiscretionary contributions on behalf of participants who have completed one year of service equal to 3% of the eligible participant’s compensation, as defined.

The Company’s Board of Directors (and AC’s Board of Directors with respect to AC participants) reserves the right to make future discretionary non-elective contributions, which are allocated on the basis of eligible participants’ compensation, as defined. Upon completing one year of service, an eligible participant is eligible to receive discretionary non-elective contributions on the first day of the month coinciding with or following the date on which the participant meets the one year of service requirement. Epmar, Summit and ECLI participants are not eligible for discretionary non-elective contributions.

Participants who are eligible to make contributions and who have or will attain age 50 before the end of the Plan year are eligible to make catch-up contributions in accordance with, and subject to, the limitations of Internal Revenue Code (“IRC”) Section 414(v). No Company matching contributions are made with respect to catch-up contributions.

*Participant Accounts*

Each participant’s account is credited or deducted with the participant’s contribution and any applicable direct expenses and allocation of the Company’s contributions and any Plan earnings and losses.

*Participant Notes Receivable*

Participants may borrow from their fund accounts (other than amounts invested in the Company Stock Fund) an amount limited to the lesser of \$50,000 or 50% of the participant’s vested account balance. The loans bear interest at a rate equal to the prevailing rate of interest charged for similar loans by lending institutions in the community (generally the prime rate), plus 1%. The term of each participant loan generally may not exceed five years except for the purchase of principal residence loans. Interest rates on outstanding participant notes receivable at December 31, 2018 ranged from 4.25% to 6.25%. Principal and interest is paid ratably through periodic payroll deductions. Loan application fees and annual maintenance fees on all outstanding loans are paid by the participant.

*Payment of Benefits*

Generally, upon separation of service, for any reason, a participant may receive a lump sum amount equal to the value of the participant’s account. In addition, a participant may elect to take an in-service distribution from their rollover account prior to reaching age 59 ½, and from all accounts upon reaching age 59 ½. If a participant’s vested account balance exceeds \$1,000, the participant may defer payment until April 1 following the year the participant reaches age 70 ½ or following the year in which the participant terminates employment, if later.

**Quaker Chemical Corporation**  
**Retirement Savings Plan**  
**Notes to Financial Statements - Continued**

*Hardship Withdrawals*

Participants who are actively employed and who meet certain requirements may take a hardship withdrawal from their elective contributions. Participants who receive a hardship withdrawal will not be eligible to make contributions for six months following the receipt of the hardship withdrawal.

*Vesting*

Upon entering the Plan, participants are fully vested in Company matching contributions, Company discretionary non-elective contributions, Company nondiscretionary non-elective contributions and employee deferrals plus actual earnings.

*Plan Termination*

Although it has not expressed any intent to do so, the Company has the right to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants would remain 100% vested.

**NOTE 2 – SUMMARY OF ACCOUNTING POLICIES**

*Basis of Accounting*

The Plan's financial statements are prepared on the accrual basis of accounting.

*Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and changes therein, and disclosure of contingent assets and liabilities. The most significant estimate is the determination of the fair values of the Plan's investments. Actual results could differ from those estimates.

*Administration of Plan Assets*

The Plan's assets are held by the Trustee of the Plan. Certain administrative functions are performed by officers or employees of the Company. No such officer or employee receives compensation from the Plan. Substantially all administrative expenses, including the Trustee's and audit fees, are paid directly by the Company and are therefore excluded from these financial statements.

*Investment Valuation and Income Recognition*

The Plan's investments are recorded at fair value. Fair value is 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. Plan management determines the Plan's valuation policies utilizing information provided by the Trustee. Refer to Note 5 – Fair Value Measures for further information.

Purchases and sales of investments are recorded on a trade-date basis. Net (decrease) increase in fair value of investments includes gains and losses on investments bought and sold during the year as well as unrealized gains and losses on those held at year end. Interest income is accrued when earned. Dividend income is recorded on the ex-dividend date. Capital gain distributions are included in dividend income.

Net investment returns reflect certain fees paid by the investment funds, which include costs for portfolio management, administrative and other services as described in each fund's prospectus. These fees are deducted by the investment funds prior to allocation of the Plan's investment earnings activity and are therefore not separately identified as Plan expenses.

*Participant Notes Receivable*

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Interest income is recorded on the accrual basis. No allowance for credit losses was recorded as of December 31, 2018 or 2017. Delinquent notes receivable from participants are recorded as a benefit payment when the Plan Administrator deems the participant note receivable to be in default based on the terms of the Plan document.

*Payment of Benefits*

Benefits are recorded when paid.

*Recently Issued Accounting Standards*

In August 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*. The amendments in this update remove certain disclosure requirements regarding transfers between levels of the fair

**Quaker Chemical Corporation**  
**Retirement Savings Plan**  
**Notes to Financial Statements - Continued**

value hierarchy as well as certain disclosures related to the valuation processes for certain fair value measurements. Further, the amendments added certain disclosure requirements including unrealized gains and losses and significant unobservable inputs used to develop certain fair value measurements. The amendments in this update are effective for fiscal years beginning after December 15, 2019, and should be applied prospectively in the initial year of adoption or retrospectively to all periods presented, depending on the amended disclosure requirement. Early adoption is permitted. The Plan elected to early adopt the guidance within this update in 2018 with no impact to its financial statements.

In February 2017, the FASB issued ASU No. 2017- 06, *Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): Employee Benefit Plan Master Trust Reporting*. The amendments in this update require employee benefit plans to report its interest in a master trust and the change in the value of the interest as separate line items on the statement of net assets available for benefits and the statement of changes in net assets available for benefits, respectively. The update requires a plan to disclose the master trust's other assets and liabilities, as well as the dollar amount of its interest in these balances. In addition, the amendments in this update remove the requirement to disclose the percentage interest in the master trust for plans with divided interest and requires that a plan disclose the dollar amount of its interest in the general types of investments held by the master trust. The amendments in this update are effective for fiscal years beginning after December 15, 2018, and should be applied on a retrospective basis for the periods presented. Early adoption is permitted. The Plan is still evaluating the impact of this guidance, and has not adopted such.

**NOTE 3 – RISKS AND UNCERTAINTIES**

Investment securities are exposed to various risks such as interest rate, credit and overall market volatility. Due to the risks associated with investment securities, it is possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits. The Plan therefore provides for investment options in various investment securities, which allows participants to diversify their securities portfolios and mitigate these risks.

**NOTE 4 – VANGUARD RETIREMENT SAVINGS MASTER TRUST**

The Plan invests in a common/collective trust, the Vanguard Retirement Savings Trust (the "Trust"), a stable value fund that invests in the Vanguard Retirement Savings Master Trust ("VRSMT"). The VRSMT is composed of an investment in fully benefit-responsive contracts that are issued by insurance companies and commercial banks and in contracts that are backed by bond funds and trusts that are selected by Vanguard Fiduciary Trust Employer, the Trustee. Contract value, as reported by VRSMT, is the amount participants would receive if they were to initiate a permitted transaction under the terms of the Plan, and also, represents contributions made under the contract, plus earnings, less participant withdrawals. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. Certain events limit the Plan's ability to transact at contract value, including: 1) premature termination of the contracts by the Plan; 2) Plan termination; and 3) bankruptcy of the Plan sponsor. The Plan administrator does not believe that any events that would limit the Plan's ability to transact at contract value with Plan participants are probable of occurring. Contract issuers may terminate and settle the contracts at other than contract value if there is a change in qualification status of a participant, sponsor or plan, a breach of material obligations under the contract and misrepresentation by the contract holder or failure of the underlying portfolio to conform to pre-established investment guidelines. The Trust is valued at the Net Asset Value ("NAV") of units held at year end. The NAV, as provided by the Trustee, is used as a practical expedient to estimate fair value. The NAV (\$1 at each December 31, 2018 and 2017) is based on the fair value of the underlying investments less any liabilities. The practical expedient would not be used when it is determined to be probable that the Trust will sell the investment for an amount different than the reported NAV. The Trust has a fair value of \$13,976,759 and \$12,518,131 as of December 31, 2018 and 2017, respectively.

**NOTE 5 – FAIR VALUE MEASURES**

The Plan applies the guidance of the FASB regarding fair value measurements, which establishes a common definition for fair value. Specifically, the guidance utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The following is a brief description of those three levels:

- Level 1: Observable inputs such as quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.
- Level 3: Unobservable inputs that reflect the reporting entity's own assumptions.



**Quaker Chemical Corporation**  
**Retirement Savings Plan**  
**Notes to Financial Statements - Continued**

The following is a description of the valuation methodologies used for the investments measured at fair value, including the general classification of such instruments pursuant to the valuation hierarchy:

*Registered Investment Companies*

The shares of registered investment companies, which represent the NAV of shares held by the Plan, are valued based on quoted market prices on an exchange in an active market and are classified as Level 1 investments.

*Common Stock Fund*

The common stock fund is comprised of investments in the Quaker Chemical Corporation Stock Fund, which is composed of shares of the Company and uninvested cash. The shares of the Company are traded on an exchange in an active market and are classified as a Level 1 investment.

*Participant-Directed Brokerage Account*

The participant-directed brokerage account is mainly composed of investments in common stock and registered investment companies, which are valued based on quoted market prices on an exchange in an active market and are classified as Level 1 investments.

The valuation methodologies described above may produce fair value calculations that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methodologies are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date. There have been no significant changes in methodologies used or transfers between levels during the years ended December 31, 2018 and 2017.

As of December 31, 2018 and 2017, the Plan's investments measured at fair value on a recurring basis were as follows:

| <u>Investments</u>                        | <b>Total<br/>Fair Value</b> | <b>Fair Value Measurements at December 31, 2018<br/>Using Fair Value Hierarchy</b> |                |                |
|---|-----------------------------|--|----------------|----------------|
|   |                             | <b>Level 1</b>   | <b>Level 2</b> | <b>Level 3</b> |
| Registered investment companies           | \$ 82,967,513               | \$ 82,967,513  | \$ —           | \$ —           |
| Common stock fund                         | 43,622,392                  | 43,622,392   | —              | —              |
| Participant-directed brokerage account    | 1,331,432                   | 1,331,432  | —              | —              |
| Total investments in fair value hierarchy | \$ 127,921,337              | \$ 127,921,337   | \$ —           | \$ —           |
| Common/collective trust measured at NAV * | 13,976,759                  | —  | —              | —              |
| Total investments                         | \$ 141,898,096              | \$ 127,921,337   | \$ —           | \$ —           |

| <u>Investments</u>                        | <b>Total<br/>Fair Value</b> | <b>Fair Value Measurements at December 31, 2017<br/>Using Fair Value Hierarchy</b> |                |                |
|---|-----------------------------|--|----------------|----------------|
|   |                             | <b>Level 1</b>   | <b>Level 2</b> | <b>Level 3</b> |
| Registered investment companies           | \$ 86,461,772               | \$ 86,461,772  | \$ —           | \$ —           |
| Common stock fund                         | 39,165,893                  | 39,165,893   | —              | —              |
| Participant-directed brokerage account    | 1,895,735                   | 1,895,735  | —              | —              |
| Total investments in fair value hierarchy | \$ 127,523,400              | \$ 127,523,400   | \$ —           | \$ —           |
| Common/collective trust measured at NAV * | 12,518,131                  | —  | —              | —              |
| Total investments                         | \$ 140,041,531              | \$ 127,523,400   | \$ —           | \$ —           |

\* Certain investments that are measured at fair value using the NAV per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in these tables are intended to permit reconciliation of the fair value hierarchies to the line items presented in the statements of net assets available for benefits.

**NOTE 6 – RELATED PARTY AND PARTY-IN-INTEREST TRANSACTIONS**

The Plan invests in shares of mutual funds and a collective trust managed by an affiliate of Vanguard Fiduciary Trust Company ("VFTC"). VFTC acts as the Trustee for Plan investments. In addition, certain Plan assets are invested in shares of the Quaker Chemical Corporation Stock Fund. As of December 31, 2018 and 2017, the Plan held 245,470 and 259,738 shares of common stock of Quaker Chemical Corporation in the Quaker Chemical Corporation Stock Fund, respectively. Transactions in such investments qualify as party-in-interest transactions and are exempt from the prohibited transaction rules.

Participant notes receivable qualify as party-in-interest transactions and are exempt from the prohibited transaction rules.

**Quaker Chemical Corporation**  
**Retirement Savings Plan**  
**Notes to Financial Statements - Continued**

**NOTE 7 – TAX STATUS**

The IRS informed the Company by letter dated November 15, 2017, which updates the letter dated September 27, 2012, that the Plan is qualified under IRC Section 401(a). The Plan has since been amended, however, the Plan administrator continues to believe the Plan is currently designed and being operated in compliance with the applicable requirements of the IRC. The Plan administrator has not identified any uncertain tax positions which would require adjustment to or disclosure in the Plan's financial statements. The IRS has the ability to examine the Plan's tax return filings for all open tax years, which generally relate to the three prior years; however, there are currently no audits for any tax periods in progress.

**NOTE 8 – SUBSEQUENT EVENTS**

The Company and the Plan have evaluated subsequent events through the date that these financial statements were available to be issued, and there were no subsequent events which would require an adjustment or additional disclosures to the financial statements.

**Quaker Chemical Corporation  
Retirement Savings Plan**

**Schedule of Assets (Held at End of Year)**

**As of December 31, 2018**

Quaker Chemical Corporation Retirement Savings Plan, EIN 23-0993790, PN 112

Attachment to Form 5500, Schedule H, Part IV, Line 4 (i):

| (a) | (b) Identity of issue, borrower, lessor, or similar party    | (c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value | (e) Current Value     |
|-----|--|---|-----------------------|
|     | Columbia Small Cap Growth Fund, Inc                          | Registered Investment Company   | \$ 4,353,735          |
| *   | Vanguard 500 Index Fund Investor Shares                      | Registered Investment Company   | 17,432,090            |
| *   | Vanguard Balanced Index Fund Investor Shares                 | Registered Investment Company   | 4,016,761             |
| *   | Vanguard Extended Market Index Fund Investor Shares          | Registered Investment Company   | 4,598,880             |
| *   | Vanguard Federal Money Market Fund                           | Registered Investment Company   | 1,608                 |
| *   | Vanguard International Growth Fund Investor Shares           | Registered Investment Company   | 4,468,455             |
| *   | Vanguard Target Retirement 2015 Fund                         | Registered Investment Company   | 665,850               |
| *   | Vanguard Target Retirement 2020 Fund                         | Registered Investment Company   | 5,403,403             |
| *   | Vanguard Target Retirement 2025 Fund                         | Registered Investment Company   | 7,560,616             |
| *   | Vanguard Target Retirement 2030 Fund                         | Registered Investment Company   | 5,393,155             |
| *   | Vanguard Target Retirement 2035 Fund                         | Registered Investment Company   | 3,011,207             |
| *   | Vanguard Target Retirement 2040 Fund                         | Registered Investment Company   | 2,643,960             |
| *   | Vanguard Target Retirement 2045 Fund                         | Registered Investment Company   | 1,875,347             |
| *   | Vanguard Target Retirement 2050 Fund                         | Registered Investment Company   | 1,307,340             |
| *   | Vanguard Target Retirement 2055 Fund                         | Registered Investment Company   | 1,185,369             |
| *   | Vanguard Target Retirement 2060 Fund                         | Registered Investment Company   | 247,852               |
| *   | Vanguard Target Retirement 2065 Fund                         | Registered Investment Company   | 1,003                 |
| *   | Vanguard Target Retirement Income                            | Registered Investment Company   | 2,202,016             |
| *   | Vanguard Total Bond Market Index Fund Investor Shares        | Registered Investment Company   | 6,682,491             |
| *   | Vanguard Total International Bond Index Fund Investor Shares | Registered Investment Company   | 393,605               |
| *   | Vanguard U.S. Growth Fund Investor Shares                    | Registered Investment Company   | 5,895,293             |
| *   | Vanguard Windsor II Fund Investor Shares                     | Registered Investment Company   | 3,627,477             |
| *   | Vanguard Brokerage Option                                    | Self-Directed Brokerage Accounts  | 1,331,432             |
| *   | Vanguard Retirement Savings Trust                            | Common/Collective Trust   | 13,976,759            |
| *#  | Quaker Chemical Corporation                                  | Common Stock Fund   | 43,622,392            |
| *   | Participant notes receivable                                 | (4.25% to 6.25%)  | 1,838,851             |
|     |  |   | <u>\$ 143,736,947</u> |

\* Party-in-Interest

# Related party

(d) Column (d) is omitted as cost is not required for participant directed investments

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 by the undersigned hereunto duly authorized.

June 20, 2019

Quaker Chemical Corporation Retirement Savings Plan

By:           /s/ Mary Dean Hall          

Mary Dean Hall, Vice President, Chief Financial Officer and Treasurer

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (333-208188, 333-159513, 333-115713, 033-54158) of Quaker Chemical Corporation of our report dated June 20, 2019, relating to the financial statements and supplemental schedule of the Quaker Chemical Corporation Retirement Savings Plan which appear in this Form 11-K for the year ended December 31, 2018.

/s/ BDO USA, LLP

**Philadelphia, Pennsylvania**

**June 20, 2019**

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