#### FORM 10-K/A

#### AMENDMENT NO. 1 TO FORM 10-K

# SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D. C. 20549

/ X / ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 1993

OR

/ / TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number 0-7154

### QUAKER CHEMICAL CORPORATION

(Puret new of Desistant or annification in the about on)

(Exact name of Registrant as specified in its charter)

A Pennsylvania Corporation No. 23-0993790

(State or other jurisdiction of incorporation or organization)

No. 23-0993790

(I.R.S. Employer Identification No.)

Elm and Lee Streets, Conshohocken, Pennsylvania 19428
-----(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code (610) 832-4000

Securities registered pursuant to Section 12(b) of the Act:

NAME OF EACH EXCHANGE ON TITLE OF EACH CLASS WHICH REGISTERED

None

Securities registered pursuant to Section 12(g) of the Act:

COMMON STOCK, \$1.00 PAR VALUE

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months and (2) has been subject to such filing requirements for the past 90 days. Yes / X / No /

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

State the aggregate market value of the voting stock held by non-affiliates of the Registrant. (The aggregate market value is computed by reference to the last reported sale price on the Nasdaq National Market on March 18, 1994): \$166,425,298.

Indicate the number of shares outstanding of each of the Registrant's

classes of common stock, as of the latest practicable date: 9,255,506 shares of Common Stock, \$1.00 Par Value, as of March 18, 1994.

#### DOCUMENTS INCORPORATED BY REFERENCE

- (1) Portions of the Registrant's Annual Report to Shareholders for the year ended December 31, 1993 are incorporated into Parts I and II.
- (2) Portions of the Registrant's definitive Proxy Statement dated March 31, 1994, in connection with the Annual Meeting of Shareholders to be held on May 4, 1994, as amended by the definitive additional materials dated April 11, 1994, are incorporated into Part III.

The exhibit index is located on page 18.

#### PART T

As used in this Report, the term "Quaker," unless the context otherwise requires, means Quaker Chemical Corporation, its subsidiaries, and associated companies.

ITEM 1. BUSINESS.

General Description

Quaker develops, produces, and markets a broad range of formulated chemical specialty products for various heavy industrial, institutional, and manufacturing applications. Quaker's principal products include: (i) rolling lubricants (used by manufacturers of steel in the hot and cold rolling of steel); (ii) corrosion preventives (used by steel and metalworking customers to protect metal during manufacture, storage, and shipment); (iii) metal finishing compounds (used to prepare metal surfaces for special treatments such as galvanizing and tin plating and to prepare metal for further processing); (iv) machining and grinding compounds (used by metalworking customers in cutting, shaping, and grinding metal parts which require special treatment to enable them to tolerate the manufacturing process); (v) forming compounds (used to facilitate the drawing and extrusion of metal products); (vi) paper production products (used as defoamers, release agents, softeners, debonders, and dispersants); (vii) hydraulic fluids (used by steel, metalworking, and other customers to operate hydraulically activated equipment); (viii) products for the removal of hydrogen sulfide in various industrial applications. During 1993, Quaker developed programs to provide recycling and chemical management services.

In 1994, Quaker entered into an agreement for the creation of a joint venture which is expected to enhance the Total Fluid Management (TFM) service capabilities of Quaker. An initial cash investment of approximately \$3,000,000 has been made with additional investments expected based on the growth of the venture.

Other specialty products and services are produced and marketed by Quaker's domestic subsidiaries. AC Products, Inc., Quaker Construction Products, Inc., QSC Products, Ltd., and Multi-Chemical Products, Inc. manufacture and/or sell sealants and coatings for aerospace, construction, and industrial use. Selby, Battersby & Co. manufactures and sells trowel-applied flooring systems which derive their specialty characteristics from the different resins used and the methods of their application.

During the third quarter 1992, as part of a plan to exit from the petroleum production chemicals market, Quaker entered into an agreement to sell certain of its petroleum production chemical operations assets, the principal component of which is technology used in the removal of hydrogen

sulfide and organic sulfides from liquid and gaseous streams, embodied in the SULFA-SCRUB(R) product series. This transaction was consummated in 1993. Quaker acquired in May 1993 a French producer of metalworking fluids at a price of approximately French Francs 53,000,000 (approximately US \$10,700,000), to reinforce Quaker's existing metalworking operations in Europe.

2

Substantially all of Quaker's sales worldwide are made directly through its own sales forces. Quaker salesmen visit the plants of customers regularly and through training and experience identify production needs which can be resolved or alleviated either by adapting Quaker's existing products or by new formulations developed in Quaker's laboratories. Salesmen may call upon Quaker's regional managers, product managers, and members of its laboratory staff for assistance in obtaining and setting up product tests and evaluating the results of such tests. In 1993, certain products were also sold in Canada, Korea, India, and Argentina by exclusive licensees under long-term royalty agreements.

Generally, separate manufacturing facilities of a single customer are served by different salesmen.

## Competition

\_ \_\_\_\_

The chemical specialty industry is composed of a number of companies of similar size as well as companies larger and smaller than Quaker. Quaker cannot readily determine its precise position in the industry. Many competitors are in fewer and more specialized product classifications or provide different levels of technical services in terms of specific formulations for individual customers. Competition in the industry is based primarily on the ability to provide products which meet the needs of the customer and render technical services and laboratory assistance to customers and, to a lesser extent, on price.

## Major Customers

During 1993, Quaker's five largest customers (each composed of multiple subsidiaries or divisions with semi-autonomous purchasing authority) accounted for approximately 16% of its consolidated net sales with the largest of these customers accounting for approximately 4% of consolidated net sales. No one subsidiary or division of these five customers accounted for more than 3% of consolidated net sales. During the same period, approximately 46% of consolidated net sales were made to customers engaged in the manufacture of cold-rolled steel.

## Raw Materials

Quaker uses over 500 raw materials, including mineral oils, fats and fat derivatives, ethylene derivatives, solvents, surface active agents, chlorinated paraffinic compounds, and a wide variety of organic and inorganic compounds. In 1993, only one raw material accounted for as much as 11% of the total cost of Quaker's raw material purchases. Quaker has multiple sources of supply for most materials, and Management believes that the failure of any single supplier would not have a material adverse effect upon its business.

3

Quaker has a limited number of patents and patent applications, including patents issued, applied for, or acquired in the United States and in various foreign countries, some of which may prove to be material to its business. Principal reliance is placed upon Quaker's proprietary formulae and the application of its skills and experience to meet customer needs. Quaker's products are identified by trademarks which are registered throughout its marketing area. Quaker makes little use of advertising but relies heavily upon its reputation in the markets which it serves.

Research and Development -- Laboratories

- -----

Quaker's research and development laboratories support its sales organization. Accordingly, the activities of Quaker's laboratory staff are directed primarily toward applied research and development since the nature of Quaker's business requires continuing modification and improvement of formulations to provide chemical specialties to satisfy customer requirements.

Quaker maintains quality control laboratory facilities in each of its manufacturing locations. In addition, Quaker maintains in Conshohocken, Pennsylvania, laboratory facilities which are devoted primarily to applied research and development.

Most of Quaker's affiliates also have research and development facilities. Although not as complete as the Conshohocken laboratories, these facilities are generally sufficient for the requirements of the customers being served. If problems are encountered which cannot be resolved by local research and development facilities, such problems are referred to the Conshohocken laboratory staff.

Approximately 195 persons, of whom 98 have B.S. degrees and 44 have B.S. and advanced degrees, are employed in Quaker's laboratories.

Number of Employees

\_ \_\_\_\_\_

On December 31, 1993, Quaker had 1,006 full-time employees, of whom 369 were employed by the parent company, 548 were employed by its international subsidiaries and associates, and 89 were employed by all domestic subsidiaries.

Product Classification

- -----

Incorporated by reference is the information concerning product classification by markets served appearing under the caption "Supplemental Financial Information" on page 27 of the Registrant's

4

1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

International Activities

- ------

Incorporated by reference is the information concerning international activities appearing in Note 9 to Notes to Consolidated Financial Statements and under the caption "General" of the Operations section of Management's Discussion and Analysis of Financial Condition and Results of Operations which appear on pages 30 and 31, respectively, of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

ITEM 2. PROPERTIES.

\_\_\_\_\_

Quaker's principal facilities in the United States are located in Conshohocken, Pennsylvania and Detroit, Michigan. Quaker also owns a non-operating facility in Pomona, California. Quaker's international subsidiaries own facilities in Woodchester, England; Uithoorn, The Netherlands; Verona, Italy; Villeneuve, France; Santa Perpetua de Mogoda, Spain; and Seven Hills, N.S.W., Australia. Quaker Construction Products, Inc. has a manufacturing facility in Sapulpa, Oklahoma that also serves QSC Products, Ltd. and Selby, Battersby & Co. All of these facilities are owned mortgage free. Financing for the Corporate Technical Center in Conshohocken, Pennsylvania was arranged through the use of industrial revenue and development bonds with an outstanding balance at December 31, 1993 of \$5,000,000.

Quaker's aforementioned facilities consist of various manufacturing, administrative, warehouse, and laboratory buildings. Substantially all of the buildings are of fire-resistant construction and are equipped with sprinkler systems. All facilities are primarily of masonry and/or steel construction and are adequate and suitable for Quaker's present operations. The Company has a program to identify needed capital improvements which will be implemented as Management considers necessary or desirable. Most locations have various numbers of raw material storage tanks ranging from six to 63 having a capacity from 500 to 80,000 gallons each and processing or manufacturing vessels ranging in capacity from 50 to 12,000 gallons each.

In order to facilitate compliance with applicable federal, state, and local statutes and regulations relating to occupational health and safety and protection of the environment, the Company has implemented a program of site assessment, currently directed primarily to facilities in the United States for the purpose of identifying capital expenditures or other actions that may be necessary to comply with such requirements. The program includes periodic inspections of each facility in the United States by Quaker and/or independent environmental experts, as well as ongoing inspections by on-site personnel. Such inspections are addressed

5

to operational matters, record keeping, reporting requirements, and capital improvements. In 1993, capital expenditures directed solely or primarily to regulatory compliance amounted to approximately \$1,000,000.

Quaker's executive offices are located in a four-story building containing a total of approximately 47,000 square feet. A corporate technical center containing approximately 28,700 square feet houses the laboratory facility. Both of these facilities are adjacent to Quaker's manufacturing facility in Conshohocken.

Multi-Chemical Products, Inc. has a ten-year lease on its facility in Fontana, California which expires in 2001. AC Products, Inc. has a ten-year lease on its facility in Placentia, California that expires in 1997.

Quaker's Mexican associate (40% owned) owns a plant in Monterrey, Mexico.

## ITEM 3. LEGAL PROCEEDINGS.

The Company is a party to proceedings, cases, and requests for information from, and negotiations with, various claimants and federal and state agencies relating to various matters including environmental matters, none of which are expected to result in monetary sanctions in any amount or in awards that would have a material adverse effect on the Company's financial condition. Reference is made to Note 11 to Notes to Consolidated Financial Statements which appears on page 26 in the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to

this report, for information concerning pending asbestos-related cases against a subsidiary.

## ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

No matters were submitted to a vote of security holders during the last quarter of the period covered by this Report.

6

ITEM 4(A). EXECUTIVE OFFICERS OF THE REGISTRANT.

NAME	OFFICE (SINCE)	AGE	YEAR FIRST ELECTED AS AN EXECUTIVE OFFICER
 Peter A. Benoliel		 62	1963
recer A. Denoilei	Charman of the Board (1900)	02	1903
S. W. W. Lubsen	President (1988) and Chief Executive Officer (1993)	50	1988
John E. Burrows, Jr.	Vice President-North America (1992)	47	1990
Jose Luiz Bregolato	Vice President-South America (1993)	48	1993
Ira R. Dolich	Vice President-Quality and Training (1990) (Retired December 31, 1993)	58	1981
William G. Hamilton	Corporate Treasurer (1985) (Retired December 31, 1993)	57	1985
Marcus C. J. Meijer	Vice President-Europe (1990)	46	1990
Clifford E. Montgomery	Vice President-Human Resources (1990)	46	1990
Karl H. Spaeth	Vice President (1981) and Corporate Secretary (1972)	65	1972
Joseph F. Spanier	Vice President (1990), Corporate Controller (1985), and Corporate Treasurer (1994)	47	1985

All of the Executive Officers with the exception of Mr. Bregolato, Mr. Meijer, Mr. Burrows, and Mr. Montgomery have served as an officer of the Registrant for more than the past five years. Prior to being elected Chief Executive Officer of the Registrant, Mr. Lubsen served as Managing Director of Quaker Chemical B.V., a position to which he was appointed in 1984, and President and Chief Operating Officer to which he was elected in 1988. Prior to his election as an officer of the Registrant, Mr. Bregolato served as Financial Consultant and Administrative Director of Fabrica Carioca de Catalisadores, S.A. to which he was appointed in 1985. Prior to his election as an officer of the Registrant, Mr. Meijer served as Managing Director of Quaker Chemical B.V. to which he was appointed in 1988. Prior to that, he served as President of a Brazilian subsidiary and subsequently as Commercial Director, Chemical

Division of the Akzo N.V. group. Prior to his election as an officer of the Registrant, Mr. Burrows served as Division Manager, Marine Colloids Division of FMC Corporation, a position to which he was appointed in 1986. Prior to being elected Vice President-Human Resources, Mr. Montgomery served as Manager of Human Resources, General Electric's Worldwide Marketing and Product Management Organization, and, prior to that, he served as Director, Human Resources, GE Plastics Europe. Mr. Spanier was elected Treasurer effective January 1, 1994 on the retirement of Mr. Hamilton.

There is no family relationship between any of the Registrant's Executive Officers. Each Officer is elected for a term of one year.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

Incorporated by reference is the information appearing under the caption "Stock Market and Related Security Holder Matters" on page 28 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

ITEM 6. SELECTED FINANCIAL DATA.

Incorporated by reference is the information appearing under the caption "Selected Financial Information" on page 29 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Incorporated by reference is the information appearing under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations" on pages 30 and 31 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

Incorporated by reference is the information appearing on pages 14 through 27 of the Registrant's 1993 Annual Report to Shareholders, the incorporated portions of which are included as Exhibit 13 to this Report.

8

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT.

Incorporated by reference is the information beginning immediately following the caption "Election of Directors" to, but not including, the caption "Executive Compensation" contained in the Registrant's definitive

Proxy Statement to be filed no later than 120 days after the close of its fiscal year ended December 31, 1993 and the information appearing in Item 4(a) of this Report. Based on the Company's review of certain reports filed with the Securities and Exchange Commission pursuant to Section 16(a) of the Securities Exchange Act of 1934, as amended, and written representations of the Company's officers and directors, the Company believes that all of such reports were filed on a timely basis, except for one filing on Form 4 covering one transaction each for Mr. Benoliel and Mr. Delattre.

## ITEM 11. EXECUTIVE COMPENSATION.

\_\_\_\_\_

Incorporated by reference is the information beginning immediately following the caption "Executive Compensation" to, but not including, the caption "Compensation/Management Development Committee and Long-Term Performance Incentive Plan Committee Report on Executive Compensation" contained in the Registrant's definitive Proxy Statement filed on March 29, 1994, as amended by the information contained in the Registrant's definitive additional materials dated April 11, 1994.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

\_\_\_\_\_

Incorporated by reference is the information beginning immediately following the caption "Security Ownership of Certain Beneficial Owners and Management" to, but not including, the caption "Election of Directors" contained in the Registrant's definitive Proxy Statement to be filed no later than 120 days after the close of its fiscal year ended December 31, 1993.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

No information is required to be provided in response to this Item 13.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K.

(a) Exhibits and Financial Statement Schedules

9

## 1. FINANCIAL STATEMENTS

The following is a list of the Financial Statements which have been incorporated by reference from the Registrant's Annual Report to Shareholders for the fiscal year ended December 31, 1993, as set forth in Item 8:

Consolidated Statement of Operations

Consolidated Statement of Cash Flows

Consolidated Balance Sheet

Notes to Consolidated Financial Statements

Report of Independent Accountants

#### 2. FINANCIAL STATEMENT SCHEDULES

The following is a list of the Financial State-

ment Schedules filed herewith, all of which should be read in conjunction with the financial statements listed in Item 14(a) 1, above:

Report of Independent Accountants on Financial Statement Schedules

Schedule V-Property, plant, and equipment

Schedule VI-Accumulated depreciation of property, plant, and equipment

Schedule VIII-Valuation and qualifying accounts

Schedule IX-Short-term borrowings

All other schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

Financial statements of 50% or less owned companies have been omitted because none of the companies meets the criteria requiring inclusion of such statements.

3. EXHIBITS (NUMBERED IN ACCORDANCE WITH ITEM 601 OF REGULATION S-K)

10

- 3(a) --Articles of Incorporation.
   Incorporated by reference to Exhibit
   3(a) to Form 10-Q as filed by the Registrant for the Quarter ended March 31,
   1987.
- 3(b)--By-Laws.

Incorporated by reference to Exhibit 3(b) to Form 10-Q as filed by the Registrant for the Quarter ended March 31, 1987.

- 3(c)--Amendment to Section 3.13 of the By-Laws dated May 2, 1990 and Amendment to Section 8.1 of the By-Laws dated July 11, 1990. Incorporated by reference to Exhibit 3(c) as filed by Registrant with Form 10-K for the year 1990.
- 4 --Shareholder Rights Plan. Incorporated by reference to Form 8-K as filed by the Registrant, February 20, 1990.
- 10(b)--Employment agreement by and between the Registrant and Peter A. Benoliel, as amended July 1, 1989. Incorporated by reference to Exhibit 10(b) as filed by Registrant with Form 10-K for the year 1989.\*
- 10(c)--Employment agreement by and between the Registrant and S. W. W. Lubsen. Incor- porated by reference to Exhibit 10(c) as filed by Registrant with Form 10-K for the year 1989.\*
- 10(d)--Restricted Stock and Cash Bonus Plan and Agreement by and between the Registrant and S. W. W. Lubsen. Incorporated by reference to Exhibit 10(d) as filed by Registrant with Form 10-K for the year

1989.\*

- 10(e) -- Employment agreement by and between Registrant and John E. Burrows, Jr. Incorporated by reference to Exhibit 10(h) as filed by Registrant with Form 10-K for the year 1990.\*
- 10(f)--Employment agreement by and between
   Registrant and Clifford E. Montgomery.
   Incorporated by reference to Exhibit
   10(i) as filed by Registrant with Form
   10-K for the year 1990.\*
- 10(g)--Employment agreement by and between
   Registrant and Joseph F. Spanier. Incor porated by reference to Exhibit 10(g) as
   filed by Registrant with Form 10-K for
   the year 1992.\*

11

- 10(h) --Documents constituting employment contract
   by and between Quaker Chemical Europe B.V.
   and M. C. J. Meijer.\*/\*\*
- 10(i)--Documents constituting retirement agreement
   by and between Registrant and Ira R.
   Dolich.\*/\*\*
- 13 --Portions of the 1993 Annual Report to Shareholders incorporated by reference.\*\*
- 21 --Subsidiaries and Affiliates of the Registrant.\*\*
- 23 -- Consent of Independent Accountants.\*\*
- \* A management contract or compensatory plan or arrangement required to be filed as an exhibit to this report.
- \*\* Previously filed.
- (b) Reports on Form 8-K.
  - No reports on Form 8-K were filed by the Registrant during the last quarter of the period covered by this Report.
- (c) The exhibits required by Item 601 of Regulation S-K filed as part of this Report or incorporated herein by reference are listed in subparagraph (a) (3) of this Item 14.
- (d) The financial statement schedules filed as part of this Report are listed in subparagraph (a)(2) of this Item 14.

12

## SIGNATURES

PURSUANT TO THE REQUIREMENTS OF SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934, THE REGISTRANT HAS DULY CAUSED THIS AMENDMENT NO. 1 TO BE SIGNED ON ITS BEHALF BY THE UNDERSIGNED, THEREUNTO DULY AUTHORIZED.

By: KARL H. SPAETH

\_\_\_\_\_\_

Karl H. Spaeth Vice President and Corporate Secretary

1.3

## REPORT OF INDEPENDENT ACCOUNTANTS ON FINANCIAL STATEMENT SCHEDULES

To the Shareholders and Board of Directors Quaker Chemical Corporation

Date: April 11, 1994

Our audits of the consolidated financial statements referred to in our report dated February 18, 1994 appearing on page 26 of the 1993 Annual Report to Shareholders of Quaker Chemical Corporation (which report and financial statements are incorporated by reference in this Annual Report on Form 10-K) also included an examination of the Financial Statement Schedules listed in Item 14(a) of this Form 10-K. In our opinion, these Financial Statement Schedules present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

PRICE WATERHOUSE

Thirty South Seventeenth Street Philadelphia, Pennsylvania 19103 February 18, 1994

14

QUAKER CHEMICAL CORPORATION
SCHEDULE V -- PROPERTY, PLANT AND EQUIPMENT
YEARS ENDED DECEMBER 31, 1993, 1992 AND 1991

	BALANCE AT	ADDITIONS	RETIREMENTS	OTHER	BALANCE AT
	BEGINNING	AT	OR	CHANGES, ADD	END OF
CLASSIFICATION	OF PERIOD	COST	SALES	(DEDUCT) (1)	PERIOD
		YEAR ENDE	D DECEMBER 31	1, 1993	
Land	\$ 6,042,000	\$ 144,000	\$ (61,000)	\$ 315,000	\$ 6,440,000
improvements. Machinery and	32,873,000	2,234,000	(1,261,000)	1,744,000	35,590,000
equipment Construction	57,306,000	6,174,000	(1,295,000)	881,000	63,066,000
in progress	1,477,000	408,000		95,000	1,980,000
	\$97,698,000	\$ 8,960,000	\$(2,617,000)	\$ 3,035,000	\$107,076,000

## YEAR ENDED DECEMBER 31, 1992

Land Buildings and improvements. Machinery and	\$ 3,169,000	\$ 488,0	000	\$ 2,385,000	\$ 6,042,000
	31,284,000	355 <b>,</b> (	(6,000)	1,240,000	32,873,000
equipment Construction	52,474,000	6,257,0	(3,506,000)	2,081,000	57,306,000
in progress	2,077,000	126,0	00	(726,000)	1,477,000
	\$89,004,000	\$ 7,226,0	(3,512,000)	\$ 4,980,000	\$ 97,698,000
		YEAR I	INDED DECEMBER 3	31, 1991	
Land	\$ 3,152,000		\$ (43,000)	\$ 60,000	\$ 3,169,000
improvements. Machinery and	29,414,000	\$ 332,0	(659,000)	2,197,000	31,284,000
equipment Construction in progress	48,385,000	2,567,0	(2,048,000)	3,570,000	52,474,000
	2,746,000	5,521,0	000	(6,190,000)	2,077,000
	\$83,697,000	\$ 8,420,0	000 \$(2,750,000)	\$ (363,000)	\$ 89,004,000

(1) Represents primarily companies acquired and fluctuations resulting

15

# QUAKER CHEMICAL CORPORATION SCHEDULE VI -- ACCUMULATED DEPRECIATION YEARS ENDED DECEMBER 31, 1993, 1992 AND 1991

CLASSIFICATION	-	AT COST	OR		END OF
		TEAR ENDE	D DECEMBER 3.	1, 1993	
Buildings and improvements. Machinery and	\$12,144,000	\$ 1,203,000	\$ (560,000)	\$ (296,000)	\$ 12,491,000
equipment	33,375,000	5,342,000	(578,000)	(105,000)	38,034,000
	\$45,519,000 ======	\$ 6,545,000 ======	\$(1,138,000) =======	\$ (401,000) =======	\$ 50,525,000 =======
		YEAR ENDE	D DECEMBER 33	1, 1992	
Buildings and improvements.	\$11.105.000	\$ 1.183.000	\$ (6.000)	\$ (138,000)	\$ 12.144.000
Machinery and equipment					
edarbwenc			(1,004,000)		

\$40,343,000 \$ 6,427,000 \$ (1,870,000) \$ 619,000 \$ 45,519,000

from the translation of foreign currencies in 1993 and 1992, and fluctuations resulting from the translation from the translation of foreign currencies in 1991.

### YEAR ENDED DECEMBER 31, 1991

Buildings and

improvements. \$10,552,000 \$ 1,012,000 \$ (446,000) \$ (13,000) \$ 11,105,000

Machinery and

equipment... 26,829,000 4,176,000 (1,675,000) (92,000) 29,238,000 \$37,381,000 \$ 5,188,000 \$ (2,121,000) \$ (105,000) \$ 40,343,000

(1) Represents primarily companies acquired and fluctuations resulting from the translation of foreign currencies in 1993 and 1992, and fluctuations resulting from the translation of foreign currencies in 1991.

16

## 

## ADDITIONS

FOR THE YEAR ENDED	BALANCE AT BEGINNING OF PERIOD	CHARGED TO TO INCOME	CHARGED OR (CREDITED) TO OTHER ACCOUNTS	DEDUCTIONS	BALANCE AT END OF PERIOD
1993	\$ 834,000	\$693 <b>,</b> 000	(\$68,000)(1)	\$215,000	\$1,244,000
1992	837,000	772,000	84,000 (2)	859,000	834,000
1991	1,101,000	358,000	(20,000)(1)	602,000	837,000

Represents primarily fluctuations resulting from the translation of foreign currencies.

QUAKER CHEMICAL CORPORATION AND SUBSIDIARIES SCHEDULE IX -- SHORT-TERM BORROWINGS(1)
YEARS ENDED DECEMBER 31, 1993, 1992 AND 1991

					WEIGHTED
			MAXIMUM	AVERAGE	AVERAGE
CATEGORY OF	BALANCE	WEIGHTED	AMOUNT OUT-	AMOUNT OUT-	INTEREST
AGGREGAGE	AT	AVERAGE	STANDING	STANDING	RATE
SHORT-TERM	END OF	INTEREST	DURING THE	DURING THE	DURING THE
BORROWINGS	PERIOD	RATE	PERIOD(2)	PERIOD(2)	PERIOD(3)
1993					
Bank loans:					
Parent and					
subsidiary					
companies	\$ 1,168,000	10.0%	\$ 3,168,000	\$ 619,000	6.1%

1992

Bank loans:

<sup>- -----</sup>

<sup>(2)</sup> Represents primarily additions due to companies acquired and fluctuations resulting from the translation of foreign currencies.

Parent and subsidiary companies	971,000	6.6%	21,264,000	10,042,000	6.0%
1991 Bank loans: Parent and subsidiary					
companies	14,500,000	7.0%	22,398,000	17,607,000	7.8%

- (1) Short-term borrowings are principally short-term notes payable to banks and, in the case of certain subsidiary companies, various revolving lines of credit available to the subsidiary. Generally they may be renewed or extended beyond the maturity period as specified in the agreement.
- (2) Based on amounts outstanding at the end of each monthly accounting period.
- (3) The weighted average interest rate was calculated by dividing the interest expense for the period by the average amount outstanding during the period.