

CATALOGUE No.

46-201

ANNUAL

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CANADA

CHEMICAL AND CHEMICAL PRODUCTS INDUSTRIES, 1960

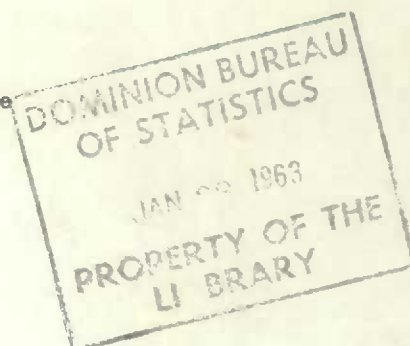
General Review

Formerly Chemicals and Allied Products

*For later see
various chemical industries*

Published by Authority of
The Honourable George Hees, Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS
Industry and Merchandising Division



November 1962
6523-567

Price 50 cents

23

SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- * revised figures.

EXPLANATORY NOTES

This report is one in a series of about 140 publications which present the results of the 1960 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and for major industry groups. Adoption of the revised Standard Industrial Classification for 1960 compilations has necessitated changes in titles of many reports in this annual series. The content of many industries has also been affected (see following note on Industrial Classification).

Industry statistics given in these reports refer to number of establishments, employees, salaries and wages, cost of materials, supplies, fuel and electricity, gross value of shipments, inventories and value added by manufacturing. Details of materials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1960 are as follows:

Period Covered

Firms are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where the firms find it impossible to supply calendar year data from accounting records. However the data on employees, salaries and wages are requested on a calendar year basis in all cases.

Establishment

Data for the annual census is collected on an establishment basis. A firm with more than one plant is required to file a report for each plant. In most cases an establishment is a complete factory; sometimes, however, a plant is divided into two or more establishments when it carries out operations classifiable to different industries and when separate accounting records are available. Usually the statistics for an establishment relate only to the manufacturing activities. Other activities such as construction at the plant by its own employees, wholesale or retail activities carried on at the plant location, etc., are not included. Plants engaged solely in repair work (except in the case of furniture, shipbuilding, boat building, aircraft and railway rolling stock industries) are not included but plants occupied in assembling parts into complete units are included.

Employees

Administrative and office employees include all executives and supervisory officials such as presidents, vice-presidents, secretaries, treasurers, etc., together with managers, professional and technical employees, superintendents and factory supervisors above the working foremen level, and clerical employees. Working owners and partners are also included in this category.

Production and related workers include all other factory workmen whether paid on a monthly, weekly, hourly or piece-work basis. Working foremen doing work similar to that of the employees they supervise are included, as are maintenance, ware-

housing and delivery staffs. Employees on new construction work, in retail or wholesale operations, on outside piece work etc. are not included.

Production workers are reported by months, an average for the year being obtained by summing the monthly figures and dividing by twelve. This procedure is followed even though the plant did not operate in all months. Figures on employment refer to calendar years whether or not some establishments reported other data on a financial year basis.

Salaries and Wages

Salaries and wages refer to gross earnings of the employees described above, including salaries, wages, commissions, bonuses, the value of room and board where provided, deductions for income tax and social services such as sickness and unemployment insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. Payments for overtime are included.

Salaries refer to amounts paid to administrative and office employees. Withdrawals by working owners or partners for normal living expenses for self and family are included but not their withdrawals for income tax. Wages refer to the amounts paid to production and related workers as defined above. Data on earnings refer to the calendar year whether or not some establishments reported other data on a financial year basis.

Cost of Fuel and Electricity

Figures for fuel refer to amounts actually used, (including fuel used in cars and trucks), not to purchases unless the quantities are the same. Values refer to the laid-down cost at the works, including freight, duty, etc.

Materials and Supplies Used

Figures represent quantities and laid-down cost values, at the works, of materials and supplies actually used during the year whether purchased from others or received as transfers from other plants of the reporting company. Amounts paid to other manufacturers for work done on materials owned by the reporting company are included. Returnable containers or any other items charged to capital account are not included. Fuels are not included. Goods bought from others or received as transfers from other plants or reporting companies for resale without further processing are not included. Maintenance and repair supplies not chargeable to capital account are included.

Factory Shipments

Factory shipments refer to shipments of goods made from own materials either in the reporting plant or by other manufacturers on the basis of a charge to the reporting plant for work done. All products and by-products shipped from the establishment are included whether for domestic use, export, or for government departments. Transfer shipments to sales outlets, distributing warehouses or to other manufacturing units of the reporting firm are included. Goods bought or received as transfers

and resold without further processing are not included. Values are computed on f.o.b. plant or plant warehouse basis, and do not include sales tax or excise duties. Values of containers not returnable are included. Amounts received in payment for work done on materials owned by others are included.

In a few industries such as shipbuilding, aircraft, etc., where work on principal products extend over a relatively long period, the value of production is recorded rather than the value of shipments. For those industries production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on finished units delivered in the year under review.

Inventories

Values represent the book values of manufacturing inventories owned and held at the reporting plant. Figures include inventories held in warehouses or selling outlets which have been included with plant operations for purposes of reporting shipments.

Value added by Manufacturing

Figures are computed from value of shipments plus or minus changes in inventories of finished goods and goods in process less cost of materials, fuel and electricity. This figure is sometimes referred to as net production.¹

Standard Industrial Classification

The revised Standard Industrial Classification which has been introduced with the 1960 Census of Manufactures provides for a breakdown of the universe into 140 industries arranged in 20 major groups compared with 135 industries in 17 major groups in the old classification which was used in the compilations for the years 1949 to 1959 inclusive. It incorporates changes considered desirable on the basis of experience in using the earlier classification as well as those which take account of changes in the structure of Canadian industries associated with the rapid developments of the past decade. Full details are contained in the Standard Industrial Classification Manual, Catalogue No. 12-501, which is available from either the Queen's Printer or the Dominion Bureau of Statistics. Reporting establishments are classified or allotted to specific industries on the basis of the value of principal products made or shipped.

Many industries remain unchanged in the new classification but in many instances there have been substantial changes in content because of the shifting of establishments from one industry to another or in re-grouping of establishments. Where

¹ To arrive at the National Accounts concept of "gross domestic product at factor cost", it would be necessary to subtract also the cost of office supplies used, advertising, insurance and other goods and services obtained from other businesses. Data on these inputs are not collected on the annual Census of Manufactures. Value added figures for "The primary industries and construction" are published in D.B.S. publication 61-202, *Survey of Production*.

changes have occurred the principal statistics for 1957, 1958 and 1959 have been re-compiled to provide data on a basis comparable with those for 1960.

Short Forms

Between 1949 and 1957, in an effort to ease the reporting burden for smaller firms, a short form was used asking for the total value of shipments only or, in a few cases where losses of detail were significant, for quantities and values of principal products. For purposes of publication, missing data were estimated on the basis of appropriate ratios. In general the cut-off point for these short forms was set at \$50,000 value of shipments. About 40% of the total number of establishments reported on the short form and accounted for less than 3 per cent of the total value of shipments.

In 1958, in order to establish a new base year, the small firms were asked to report all items of principal statistics together with some detail on materials and products.

For the 1959 Census, the short form was used again, but further steps were taken to ease the respondents' burden. First, the general limit for short forms was raised to \$100,000 value of shipments. In addition, a new intermediate form was developed. This form is a shortened version of the long form in that most of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000-\$500,000 value of shipments, but in the case of both the short and intermediate forms there were lower cut-offs for a number of industries in which the smaller firms accounted for a larger share of total shipments. On the other hand, limits were raised where this could be done without a significant loss of coverage. On most of the short forms for 1959, in addition to total value of shipments, data on principal products were requested. In a few industries, where loss of employment and earnings data were considered too large because of higher cut-offs, a question on total payroll was placed on the short form. This practice was followed again in 1960.

The intermediate and long forms provide complete data for the compilation of all elements of principal industry statistics and the details of materials and products. The one-page short form, although containing data on principal products and total value of shipments, does not request information on other elements of principal statistics such as value of inventories, materials, fuel and electricity and, in most cases, employment and salaries and wages, nor does it contain detailed data on volume and value of materials used. For purposes of compiling aggregates of principal statistics by industry and by geographic location, the missing data for each establishment were estimated for 1959 by using, in general, ratios based on the change in the value of shipments between 1958 and 1959. The proportion of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

CHEMICAL AND CHEMICAL PRODUCTS INDUSTRIES

1960

General Review

Data presented in this report reflect implementation of the revised Standard Industrial Classification (SIC) which is being used by the Dominion Bureau of Statistics in its compilation of 1960 industry statistics. The revised classification provides for a breakdown of the Chemical group into 10 separate industries under the new title of Chemical and Chemical Products Industries. This generally corresponds to the group formerly presented as Chemicals and Allied Products except for the Vegetable Oils Industry which was transferred out of the Chemical group to the Food and Beverage Industries group. Implementation of the new classification introduced, as well, a number of intra-industry changes. These are detailed out in footnote A below.

Factory shipments reported by the Chemical and Chemical Products Industries group in 1960 were valued at \$1,373.5 millions, an increase of some \$49.7 millions or about 3.8 per cent over the comparable 1959 total of \$1,323.8 millions (the latter being adjusted to a basis comparable to 1960 by the deletion of the Vegetable Oils Industry).

In 1960 there were 1,143 operating establishments in this group and they employed 54,269 persons who were paid \$253.2 millions in salaries and wages. Materials for use in manufacturing cost \$582.8 millions and fuel and electricity cost \$54.9 millions.

Imports of Chemicals and Chemical Products totalled \$338.6 millions during 1960 compared with \$326.9 millions in the previous year. Exports during 1960 amounted to \$237.7 millions compared with \$201.7 millions in 1959.

Note 1:

A. Attention is drawn to the fact that the 1960 compilations, as presented in this report, are on the basis of the revised Standard Industrial Classification (SIC). On this account, totals for 1960 are not exactly comparable with those for this group in earlier years. Some of the significant changes are as follows:

1. Transfer of the Vegetable Oils Industry to the Food and Beverage Industries group.

2. Transfer of firms manufacturing fertilizer materials, such as ammonium nitrate, ammonium phosphate, etc., from the Fertilizers Industry (old basis) to the new SIC industry Manufacturers of Industrial Chemicals, Manufacturers of superphosphate will continue to be classified to the new SIC industry Manufacturers of Mixed Fertilizers, along with firms manufacturing mixed fertilizers.

3. The abolition of the Coal Tar Distillation Industry, the Compressed Gases Industry, the Adhesives Industry and the Polishes and Dressings Industry as separate industries. Details formerly presented for the Compressed Gases Industry will now be included as part of the new SIC industry, Manufacturers of Industrial Chemicals. The remaining three industries will be included in the new SIC industry Other Chemical Industries, N.E.S.

4. Details relating to the manufacture of writing inks will now be included as part of the new SIC industry Other Chemical Industries, N.E.S.; printing inks will be covered separately in a new sub-division Manufacturers of Printing Inks.

5. Statistics relating to the manufacture of synthetic rubber previously included in the Miscellaneous Chemical Products Industry (old basis) will now be included in the new SIC industry Manufacturers of Industrial Chemicals.

6. Data relating to the manufacture of explosives, previously presented in the Miscellaneous Chemical Products Industry (old basis) are now to be shown separately in a new SIC industry Explosives and Ammunition Manufacturers.

7. Changes in the following industries resulting from the implementation of the new SIC may be generally considered as minimal. Manufacturers of Pharmaceuticals and Medicines (formerly the Medicinal and Pharmaceutical Preparations Industry); Paint and Varnish Manufacturers (formerly the Paints, Varnishes and Lacquers Industry); Manufacturers of Soap and Cleaning Compounds (formerly the Soaps, Washing Compounds and Cleaning Preparations Industry); Manufacturers of Toilet Preparations (formerly the Toilet Preparations Industry).

B. Industry bulletins carrying final figures for 1960 will also include 1957, 1958 and 1959 data re-compiled on the revised SIC basis for purposes of comparability.

Note 2:

Due to the lack of inventory data, figures for value added by manufacture prior to 1954 were obtained by subtracting the cost of materials used, including fuel and electricity, from the total value of factory shipments. In 1954 and 1955 the "Value added" adjustment incorporated the increase or decrease to shipments values resulting from changes in the value of inventories over the period. For these two years, the adjustments that were made used only the change in finished product inventory owned by manufacturers. Beginning with 1956 the calculation of the "Value added" figure was further adjusted to take into account the "Goods in process" as well as the finished goods held at plant or plant warehouses.

TABLE 1. Principal Statistics for the Chemicals and Allied Products Group, 1929-59

Basis: Standard Industrial Classification in use prior to 1960

Year	Establishments	Employees	Salaries and wages for year	Cost of fuel and electricity at plant	Cost at plant of materials used	Value added by manufacture ¹	Selling value of factory shipments
	number				dollars		
1929	562	16,933	22,966,669	4,638,631	60,762,876	79,646,347	145,047,854
1933	706	15,598	18,961,388	3,208,700	35,813,973	55,884,645	94,907,318
1937	765	22,210	28,906,162	5,285,781	68,497,022	80,239,945	154,022,748
1939	817	22,834	31,840,867	5,321,467	68,240,655	90,131,372	163,693,494
1945	986	61,339	107,050,824	16,830,677	228,855,956	252,944,165	498,630,798
1946	1,031	38,012	67,842,339	13,592,486	179,749,719	208,399,498	401,741,703
1949	1,037	41,328	100,690,662	19,217,719	280,008,945	288,171,551	587,398,215
1955	1,126	51,856	185,267,943	33,085,570	480,104,190	528,928,509	1,044,079,000
1956	1,131	52,821	200,742,647	36,638,937	527,564,227	556,240,754	1,111,233,404
1957	1,137	54,708	222,044,489	42,101,741	565,746,391	605,273,621	1,203,411,197
1958	1,143	54,570	233,819,330	47,836,871	589,315,994	664,853,235	1,293,331,692
1959	1,137	54,782	243,217,726	50,592,259	627,365,792	701,479,999	1,378,211,030

¹ See note to text.

TABLE 2. Principal Statistics for the Chemical and Chemical Products Industries Group, by Industries, 1959 and 1960

Basis: Standard Industrial Classification, revised 1960

Industry	Establishments	Employees	Salaries and wages for year	Cost of fuel and electricity at plant	Cost at plant of materials used	Value added by manufacture ¹	Selling value of factory shipments
	number				dollars		
1959							
Explosives and Ammunition Manufacturers	14	5,739	24,293,859	1,725,240	36,775,255		75,873,443
Manufacturers of Mixed Fertilizers	40	1,198	5,080,965	442,862	30,761,696		44,634,896
Manufacturers of Plastics and Synthetic Resins	31	3,257	16,218,142	3,254,401	56,111,774		99,999,014
Manufacturers of Pharmaceuticals and Medicines	184	7,974	30,450,752	1,062,186	46,780,054		159,048,927
Paint and Varnish Manufacturers	138	6,280	26,393,945	983,899	72,475,401		147,692,953
Manufacturers of Soap and Cleaning Compounds	137	3,820	17,597,641	1,491,969	56,825,601		135,405,942
Manufacturers of Toilet Preparations	84	2,770	8,919,496	214,024	21,640,804		60,137,701
Manufacturers of Industrial Chemicals	132	16,521	84,422,056	38,667,099	180,966,935		444,514,542
Manufacturers of Printing Inks	33	911	3,933,633	160,521	7,712,749		17,440,575
Other Chemical Industries, n.e.s.	332	5,783	23,737,683	2,490,785	69,749,853		139,111,122
Totals	1,125	54,253	241,048,172	50,492,986	579,799,922		1,323,859,115
1960							
Explosives and Ammunition Manufacturers	12	5,249	23,793,262	1,707,552	27,506,012	39,357,600	67,123,575
Manufacturers of Mixed Fertilizers	42	1,194	5,615,995	497,055	32,550,234	12,798,517	45,859,990
Manufacturers of Plastics and Synthetic Resins	33	4,000	21,270,993	4,835,008	68,630,527	56,943,380	128,657,676
Manufacturers of Pharmaceuticals and Medicines	198	7,994	31,898,479	1,077,743	45,550,429	118,517,168	164,896,766
Paint and Varnish Manufacturers	139	6,164	27,666,977	1,031,448	74,264,463	72,544,033	147,475,788
Manufacturers of Soap and Cleaning Compounds	134	3,983	19,025,404	1,436,951	56,410,029	80,518,573	139,278,813
Manufacturers of Toilet Preparations	84	2,636	9,318,045	226,950	22,671,222	44,458,753	67,200,300
Manufacturers of Industrial Chemicals	131	16,371	86,442,647	41,541,704	177,272,303	239,141,280	449,982,770
Manufacturers of Printing Inks	33	940	4,241,854	174,337	7,610,557	9,760,110	17,400,874
Other Chemical Industries, n.e.s.	337	5,738	23,957,463	2,365,213	70,377,258	73,713,820	145,589,996
Totals	1,143	54,269	253,231,119	54,893,961	582,843,034	747,753,234	1,373,466,548

¹ See note to text.² The changeover to the new classification has delayed the recompilation of "Value added" for the years prior to 1960 and same will not be available until the next issue of this report.

TABLE 3. Principal Statistics for the Chemical and Chemical Products Industries Group, by Provinces, 1957-60
Basis: Standard Industrial Classification, revised 1960

Industry	Establishments	Employees	Salaries and wages for year	Cost of fuel and electricity at plant	Cost at plant of materials used	Value added by manufacture ¹	Selling value of products at plant
	number				dollars		
1957							
Newfoundland.....	3	69	208,286	19,846	743,263		1,492,557
Prince Edward Island and Nova Scotia	17	329	1,012,538	191,459	4,332,292		7,306,112
New Brunswick	9	150	473,437	89,551	3,070,360		4,344,891
Quebec	370	21,617	86,336,883	11,924,115	165,436,071		357,375,183
Ontario	552	28,579	109,894,522	24,897,234	291,386,245		657,513,515
Manitoba	35	883	2,069,730	122,388	6,260,876		13,323,558
Saskatchewan	8	101	344,681	26,086	1,534,534		2,358,048
Alberta	33	1,913	8,406,398	2,565,022	15,890,787		41,485,464
British Columbia and Northwest Territories	95	2,545	10,251,882	1,451,475	24,176,751		54,698,879
Canada	1,123	53,986	218,998,357	41,287,176	512,831,179		1,139,898,207
1958							
Newfoundland.....	4	77	262,711	22,287	887,244		1,941,405
Prince Edward Island and Nova Scotia	16	327	995,097	159,660	4,215,858		7,414,497
New Brunswick	7	143	495,682	77,926	3,062,220		4,885,739
Quebec	371	21,123	88,421,811	12,527,492	164,670,014		382,828,842
Ontario	551	27,072	118,252,886	29,236,057	314,967,939		709,594,805
Manitoba	35	663	2,222,069	130,501	7,036,204		14,901,617
Saskatchewan	9	92	361,412	27,786	1,778,550		2,639,462
Alberta	34	1,810	8,641,657	2,707,990	16,449,078		47,415,593
British Columbia and Northwest Territories	98	2,545	11,032,401	2,062,143	27,800,045		63,959,914
Canada	1,125	53,852	230,685,526	46,951,842	540,867,152		1,235,581,874
1959							
Newfoundland.....	4	70	251,887	22,797	828,227		1,748,654
Prince Edward Island and Nova Scotia	18	317	1,081,140	166,795	4,438,539		8,150,904
New Brunswick	8	146	501,672	68,475	2,950,369		4,881,349
Quebec	364	21,044	91,597,288	13,172,093	178,601,947		407,872,384
Ontario	549	27,425	124,442,449	31,724,016	337,490,310		759,273,177
Manitoba	33	666	2,365,287	132,420	7,557,426		15,340,095
Saskatchewan	9	82	353,584	31,344	1,553,609		2,800,437
Alberta	37	1,890	8,868,496	2,858,871	18,934,523		55,958,693
British Columbia and Northwest Territories	103	2,613	11,586,389	2,318,375	27,444,972		67,833,222
Canada	1,125	54,253	241,048,172	50,492,986	579,799,922		1,323,859,115
1960							
Newfoundland.....	3	69	257,316	22,143	782,030	921,848	1,690,085
Prince Edward Island and Nova Scotia	15	301	1,045,760	173,057	4,308,293	3,540,573	8,094,930
New Brunswick	8	132	524,362	62,269	3,385,633	1,479,895	4,803,211
Quebec	368	20,074	92,107,137	13,697,256	167,397,084	234,636,662	414,345,449
Ontario	562	28,440	134,579,930	34,870,188	345,171,400	424,756,001	798,813,404
Manitoba	35	649	2,420,250	146,318	7,758,316	7,946,243	15,643,085
Saskatchewan	10	92	412,274	40,700	1,664,524	1,535,823	3,213,217
Alberta	40	1,903	9,808,028	3,290,273	20,961,129	35,324,672	58,443,795
British Columbia and Northwest Territories	102	2,609	12,076,062	2,591,757	31,414,625	37,611,517	68,419,392
Canada	1,143	54,269	233,231,119	54,893,961	582,843,034	747,753,234	1,373,466,548

¹ See note to text.² The changeover to the new classification has delayed the recompilation of "Value added" for these years and same will not be available until the next issue of this report.

TABLE 4. Inventories: Chemical and Chemical Products Industries Group, by Industries, 1960

	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total
	dollars			
Opening:				
Explosives and Ammunition Manufacturers	17,414,175	6,663,195	5,035,817	29,113,187
Manufacturers of Mixed Fertilizers	4,136,287	5,380,504	2,460,127	11,976,918
Manufacturers of Plastics and Synthetic Resins	7,956,382	1,758,562	8,519,051	18,233,995
Manufacturers of Pharmaceuticals and Medicines	12,228,216	7,234,483	13,347,372	32,810,071
Paint and Varnish Manufacturers	9,935,191	2,082,689	13,659,335	25,677,215
Manufacturers of Soap and Cleaning Compounds	6,781,401	1,399,232	9,216,606	17,397,239
Manufacturers of Toilet Preparations	5,179,860	368,475	4,702,208	10,250,543
Manufacturers of Industrial Chemicals	33,211,567	7,167,462	27,000,712	67,379,741
Manufacturers of Printing Inks	1,346,409	217,903	776,641	2,340,953
Other Chemical Industries, n.e.s.	10,886,415	578,320	10,019,715	21,484,450
Totals	109,075,903	32,850,825	94,737,584	236,664,312
Closing:				
Explosives and Ammunition Manufacturers	14,130,388	8,406,773	4,739,828	27,276,989
Manufacturers of Mixed Fertilizers	4,273,654	5,430,281	2,396,166	12,100,101
Manufacturers of Plastics and Synthetic Resins	7,713,688	1,509,533	10,519,319	19,742,540
Manufacturers of Pharmaceuticals and Medicines	11,737,603	6,928,696	13,901,733	32,568,032
Paint and Varnish Manufacturers	10,451,298	1,993,957	14,112,223	26,557,478
Manufacturers of Soap and Cleaning Compounds	7,598,317	1,273,472	8,429,106	17,300,895
Manufacturers of Toilet Preparations	5,619,615	464,044	4,763,264	10,846,923
Manufacturers of Industrial Chemicals	33,623,359	8,386,712	33,753,979	75,764,050
Manufacturers of Printing Inks	1,437,347	158,832	979,842	2,576,021
Other Chemical Industries, n.e.s.	11,484,733	698,789	10,765,541	22,949,063
Totals	108,070,002	35,251,089	104,361,001	247,682,092

TABLE 5. Inventories: Chemical and Chemical Products Industries Group, by Provinces, 1960

	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total
	dollars			
Opening:				
Newfoundland	208,413	2,596	147,112	358,121
Prince Edward Island and Nova Scotia	850,304	452,367	907,823	2,210,494
New Brunswick	174,216	12,768	32,441	219,425
Quebec	40,069,466	13,476,044	29,440,111	82,985,621
Ontario	54,405,571	17,934,862	50,404,078	122,744,511
Manitoba	1,200,928	88,861	1,557,453	2,847,242
Saskatchewan	667,684	—	279,329	947,013
Alberta	4,016,162	530,595	4,975,415	9,522,172
British Columbia and Northwest Territories	7,483,159	352,732	6,993,822	14,829,713
Canada	109,075,903	32,850,825	94,737,584	236,664,312
Closing:				
Newfoundland	173,450	—	185,664	359,114
Prince Edward Island and Nova Scotia	813,931	540,710	746,473	2,101,114
New Brunswick	136,180	117,033	52,762	305,975
Quebec	39,239,580	14,154,404	30,147,304	83,541,288
Ontario	54,622,879	19,256,285	55,066,840	128,946,004
Manitoba	1,211,129	105,907	1,748,199	3,065,235
Saskatchewan	426,752	—	307,159	733,911
Alberta	4,112,003	659,539	5,978,750	10,750,292
British Columbia and Northwest Territories	7,334,098	417,211	10,127,850	17,879,159
Canada	108,070,002	35,251,089	104,361,001	247,682,092

¹ Book value of all manufacturing inventories owned and held at plant and plant warehouses.

TABLE 6. Principal Statistics by Selling Value of Factory Shipments, number of Employees and Type of Ownership:
Chemical and Chemical Products Industries Group, 1957 and 1960

	Establishments	Employees	Salaries and wages	Cost of fuel and electricity	Cost of materials	Gross value of factory shipments
	number			dollars		
1957						
(a) Factory shipments						
Under \$10,000	130	174	303,500	19,668	194,922	597,483
\$ 10,000 to \$ 24,999	106	314	809,425	50,011	637,764	1,729,825
25,000 " 49,999	104	480	1,263,873	75,339	1,715,011	3,676,829
50,000 " 99,999	128	1,058	3,127,475	205,946	4,245,842	9,761,333
100,000 " 199,999	129	1,212	3,982,367	319,495	9,107,548	18,657,621
200,000 " 499,999	176	3,376	12,052,271	1,073,827	25,933,414	57,149,917
500,000 " 999,999	170	4,522	16,500,135	1,933,614	44,943,131	94,934,993
1,000,000 " 4,999,999	175	16,702	63,025,866	7,662,461	179,252,170	377,884,829
5,000,000 and over	45	23,495	103,275,182	29,946,815	246,801,377	575,505,377
Head offices	—	2,653	14,658,263	—	—	—
Totals	1,123	53,986	218,998,357	41,287,176	512,831,179	1,139,898,207
(b) Employees						
Under 5 employees	327	712	1,853,861	143,327	5,781,789	11,738,337
5 to 14 employees	339	2,853	9,839,537	766,503	28,280,149	56,825,129
15 " 49 "	254	6,975	25,301,746	2,843,404	88,640,166	171,192,906
50 " 99 "	102	7,107	25,807,134	3,077,725	79,949,682	172,148,792
100 " 199 "	52	7,260	27,747,265	4,464,976	68,315,870	162,775,209
200 " 499 "	31	10,103	42,295,183	8,553,591	88,292,778	211,010,576
500 " 999 "	14	9,867	43,249,983	11,146,789	90,992,179	225,618,726
1,000 " 1,499 "	3	6,456	28,245,385	10,290,861	62,578,566	126,588,532
1,500 and over	1					
Head offices	—	2,653	14,658,263	—	—	—
Totals	1,123	53,986	218,998,357	41,287,176	512,831,179	1,139,898,207
(c) Type of ownership						
Individuals	171	495	1,320,330	83,922	2,279,282	4,931,611
Partnerships	38	245	763,306	43,834	853,908	2,584,368
Incorporated	911	53,211	216,804,602	41,153,120	508,096,613	1,130,205,590
Co-operatives	3	35	110,119	6,300	1,601,376	2,176,618
Totals	1,123	53,986	218,998,357	41,287,176	512,831,179	1,139,898,207
1960						
(a) Factory shipments						
Under \$10,000	117	154	321,375	21,077	219,832	600,026
\$ 10,000 to \$ 24,999	94	244	624,101	37,008	529,496	1,485,199
25,000 " 49,999	117	507	1,550,641	86,777	1,795,797	4,221,872
50,000 " 99,999	101	658	2,163,731	168,663	3,243,642	7,184,532
100,000 " 199,999	125	1,205	4,079,695	269,891	7,704,761	17,899,972
200,000 " 499,999	194	3,531	14,404,121	1,126,956	29,378,558	63,184,360
500,000 " 999,999	134	4,264	17,316,476	1,423,002	43,600,224	95,919,088
1,000,000 " 4,999,999	201	15,169	67,344,699	9,160,331	196,695,435	429,389,263
5,000,000 and over	60	26,588	132,447,456	42,600,256	299,675,289	753,582,236
Head offices	—	1,949	12,978,824	—	—	—
Totals	1,143	54,269	253,231,119	54,893,961	582,843,034	1,373,466,548
(b) Employees						
Under 5 employees	337	769	2,405,866	178,368	5,534,591	13,891,728
5 to 14 employees	314	2,643	10,225,313	803,065	29,177,911	60,861,473
15 " 49 "	264	7,121	29,175,419	3,436,449	98,249,840	196,382,844
50 " 99 "	121	8,238	35,432,776	5,371,272	108,937,998	243,290,979
100 " 199 "	58	7,841	36,657,302	10,891,718	83,817,495	208,785,298
200 " 499 "	30	9,106	43,305,936	7,756,316	87,520,067	244,759,453
500 " 999 "	17	16,602	83,049,683	26,456,773	169,605,132	405,494,773
1,000 " 1,499 "	1					
1,500 and over	1	1,949	12,978,824	—	—	—
Head offices	—					
Totals	1,143	54,269	253,231,119	54,893,961	582,843,034	1,373,466,548
(c) Type of ownership						
Individuals	138	427	1,138,508	71,433	1,826,116	3,690,740
Partnerships	31	113	275,601	16,576	396,735	899,541
Incorporated	970	53,674	251,606,891	54,789,020	577,368,330	1,364,673,224
Co-operatives	4	55	210,119	16,932	3,251,853	4,203,043
Totals	1,143	54,269	253,231,119	54,893,961	582,843,034	1,373,466,548

TABLE 7. Capital and Repair Expenditures: Chemical and Chemical Products Industries Group, 1960-62¹

Year	Capital		Repair		Total
	Construction	Machinery and equipment	Construction	Machinery and equipment	
millions of dollars					
1960	34.9	72.1	10.9	48.3	166.1
1961	34.6	89.5	9.8	45.2	179.1
1962	41.4	82.3	10.5	46.3	180.5

¹ 1960 actual, 1961 preliminary estimate, 1962 intentions.

TABLE 8. Employees and their Earnings: Chemical and Chemical Products Industries Group, by Industries, 1959 and 1960

Industry	Employees					Earnings		
	Supervisory and office		Production and related workers		Total	Supervisory and office	Production and related workers	Total
	Male	Female	Male	Female				
number					dollars			
1959								
Explosives and Ammunition Manufacturers	1,494	538	2,926	781	5,739	10,530,235	13,763,624	24,293,859
Manufacturers of Mixed Fertilizers	299	123	773	3	1,198	2,274,421	2,806,544	5,080,965
Manufacturers of Plastics and Synthetic Resins	928	293	1,987	49	3,257	6,798,210	9,419,932	16,218,142
Manufacturers of Pharmaceuticals and Medicines	1,700	1,611	2,410	2,253	7,974	16,353,863	14,096,889	30,450,752
Paint and Varnish Manufacturers	1,828	991	3,132	329	6,280	13,480,549	12,913,396	26,393,945
Manufacturers of Soap and Cleaning Compounds	1,025	522	1,848	425	3,820	8,224,559	9,373,082	17,597,641
Manufacturers of Toilet Preparations	427	535	644	1,164	2,770	4,300,220	4,619,276	8,919,496
Manufacturers of Industrial Chemicals	4,608	1,274	10,575	64	18,521	32,548,000	51,874,056	84,422,056
Manufacturers of Printing Inks	169	127	612	3	911	1,585,903	2,347,730	3,933,633
Other Chemical Industries, n.e.s.	1,518	905	2,720	640	5,783	12,454,679	11,283,004	23,737,683
Totals	13,096	6,919	27,627	5,711	54,253	108,550,639	132,497,533	241,048,172
1960								
Explosives and Ammunition Manufacturers	1,428	511	2,684	626	5,249	10,747,525	13,045,737	23,793,262
Manufacturers of Mixed Fertilizers	295	112	785	2	1,194	2,484,020	3,131,975	5,615,995
Manufacturers of Plastics and Synthetic Resins	1,220	340	2,398	42	4,000	9,123,291	12,147,702	21,270,993
Manufacturers of Pharmaceuticals and Medicines	1,738	1,635	2,407	2,214	7,994	17,638,697	14,259,782	31,898,479
Paint and Varnish Manufacturers	1,834	985	3,059	286	6,164	14,402,031	13,264,946	27,666,977
Manufacturers of Soap and Cleaning Compounds	1,144	546	1,869	424	3,983	8,957,082	10,068,322	19,025,404
Manufacturers of Toilet Preparations	425	511	610	1,090	2,636	4,735,505	4,582,540	9,318,045
Manufacturers of Industrial Chemicals	4,455	1,233	10,626	57	16,371	32,983,829	53,458,818	86,442,647
Manufacturers of Printing Inks	199	124	608	9	940	1,760,822	2,481,032	4,241,854
Other Chemical Industries, n.e.s.	1,486	908	2,737	607	5,738	12,173,306	11,784,157	23,957,463
Totals	14,224	6,905	27,783	5,357	54,269	115,006,108	138,225,011	253,231,119

TABLE 9. Employees and their Earnings: Chemical and Chemical Products Industries Group, by Provinces, 1959 and 1960

Province	Employees					Earnings		
	Supervisory and office		Production and related workers		Total	Supervisory and office	Production and related workers	Total
	Male	Female	Male	Female				
number					dollars			
1959								
Newfoundland	14	5	41	10	70	86,016	165,871	251,887
Prince Edward Island and Nova Scotia	91	33	181	12	317	466,236	614,904	1,081,140
New Brunswick	25	8	113	—	146	170,431	331,241	501,672
Quebec	5,696	2,840	10,092	2,416	21,044	44,375,573	47,221,715	91,597,288
Ontario	6,690	3,578	14,070	3,087	27,425	54,007,748	70,434,701	124,442,449
Manitoba	166	95	337	68	666	1,128,401	1,236,866	2,365,267
Saskatchewan	27	10	43	2	82	171,588	181,896	353,584
Alberta	605	149	1,109	27	1,890	3,745,374	5,123,122	8,868,496
British Columbia and Northwest Territories	682	201	1,641	89	2,613	4,399,272	7,187,117	11,586,389
Canada	13,996	6,919	27,627	5,711	54,253	108,550,639	132,497,533	241,048,172
1960								
Newfoundland	14	6	41	8	69	85,740	171,576	257,316
Prince Edward Island and Nova Scotia	84	32	172	13	301	458,806	586,954	1,045,760
New Brunswick	28	8	98	—	132	174,731	349,631	524,362
Quebec	5,481	2,700	9,728	2,165	20,074	45,176,500	46,930,637	92,107,137
Ontario	7,134	3,708	14,603	2,995	28,440	59,117,109	75,462,821	134,579,930
Manitoba	163	94	326	66	649	1,170,185	1,250,065	2,420,250
Saskatchewan	33	10	47	2	92	181,946	230,328	412,274
Alberta	590	144	1,150	19	1,903	3,998,852	5,809,176	9,808,028
British Columbia and Northwest Territories	699	203	1,618	89	2,609	4,642,239	7,433,823	12,076,062
Canada	14,224	6,905	27,783	5,357	54,269	115,006,108	138,225,011	253,231,119

TABLE 10. Production and Related Workers (Wage-earners): Chemical and Chemical Products Industries Group, by Months, 1960

Month	Establishments reporting monthly detail ¹		Establishments reporting quarterly detail ²	
	Male	Female	Male	Female
January	26,466	5,074		
February	26,634	5,090		
March	26,839	5,046	240	67
April	27,332	5,071		
May	27,447	4,984		
June	27,376	5,049	296	60
July	27,219	4,906		
August	27,071	4,972		
September	26,495	4,898	271	53
October	26,095	4,941		
November	25,819	4,841		
December	25,281	4,817	242	39
Average for establishments reporting monthly detail			841	334
Average for establishments reporting quarterly detail			267	56
Average estimated for small establishments ³			26,675	4,967
Average for all establishments			27,783	5,357

¹ The number of production workers, by months, was collected only for larger establishments.

² The number of production workers, by quarters, was collected only for medium sized establishments.

³ Small establishments were not asked to report details of employment.

Note: For data by industries for 1960 refer to separate industry reports.

TABLE 11. Materials Used: Chemical and Chemical Products Industries Group, 1960

Item	Quantity	Cost at plant
		\$
Acetaldehyde	lb. 2,279,900	169,770
Acetanilide	" 7,603	3,745
Acetic anhydride	" 350,279	43,626
Acetone	" 5,201,164	526,489
Acetylene	cu. ft. 222,114,700	1,681,427
Acid:		
Acetic 99½%	lb. 25,614,615	2,579,491
Acetylsalicylic	" 888,033	499,576
Adipic	" 978,662	299,848
Arsenic (As ₂ O ₃)	" 461,350	17,531
Benzole	" 144,165	38,351
Boric or boracic	" 91,280	12,927
Citric	" 755,115	236,233
Cresylic (including cresol)	" 1,507,310	213,159
Fatty - Oleic	" 1,164,347	199,853
Stearic	" 2,401,864	370,786
Other	" 6,775,435	684,978
Formic	" 552,529	75,230
Hydrochloric (Muriatic) 100%	" 7,636,925	369,327
Hydrofluoric	" 3,011,393	633,045
Naphthenic	" 1,752,235	193,127
Nitric	" 8,916,888	388,261
Oxalic	" 235,234	40,000
Phosphoric	" 2,440,287	211,519
Sulphuric, new, all grades including oleum (as 100%)	ton 193,847	4,682,364
Sulphuric, spent	" 5,775	37,437
Tannic	lb. 4,312	6,101
Tartaric	" 783,610	297,657
Other	" 1,243,752	344,863
Alcohol:		
Amyl (fusel oil)	" 18,950	2,895
Butyl (including isobutyl)	" 5,795,810	900,108
Ethyl (denatured or not)	Imp. gal. 1,367,741	1,549,140
Fatty	lb. 5,791,691	761,865
Isopropyl	" 7,582,384	614,268
Methyl (methyl hydrate)	Imp. gal. 4,164,143	1,466,965
Polyvinyl	lb. 6,910	484
Other	" 4,794,309	821,032
Aldrin (technical grade)	" 527,658	441,887
Aluminum:		
Chloride	" 2,458,736	393,104
Powder	" 9,347	4,804
Stearate	" 253,589	66,259
Strip	" 32,199	17,278
Sulphate (alum)	" 1,222,419	42,752
Ammonia (anhydrous) 100%	" 248,142,977	7,740,431
Ammonia Liquor	" 1,329,500	90,841

TABLE 11. Materials Used; Chemical and Chemical Products Industries Group, 1960 - Continued

Item	Quantity	Cost at plant
		\$
Ammonium:		
Chloride	lb. 19,540	1,730
Nitrate	" 20,945,104	799,255
Phosphate - 11-48-0	ton 7,978	659,292
16-20-0	" 2,488	141,873
Sulphate (sulphate of ammonia)	" 30,171	1,164,467
Thioglycolate	lb. 77,263	78,582
Amyl acetate	" 114,995	21,680
Anti-skinning agents	" 297,591	291,480
Arsenic, white (As ₂ O ₃)	" 245,635	12,259
Asbestine or talc (see talc)		
Asphalt	Imp. gal. 912,680	202,062
Barium carbonate	lb. 937,558	48,126
Barium chloride	" 594,328	38,657
Barium nitrate	" 116,777	14,796
Barytes	" 1,803,478	66,279
Bentonite ("Filtrol," Pembina, etc.)	ton 1,356	171,464
Benzene (benzol)	lb. 148,890,663	6,658,829
Beta naphthol	" 217,069	57,254
Bismuth metal	" 11,214	20,960
Bismuth salts	" 9,049	24,464
Blanc Fixe	" 567,270	46,495
Bones	ton 8,210	173,792
Borax	lb. 3,731,829	181,379
Brass strip	" 1,258,515	532,557
Butadiene	" 2,763,706	370,533
Butyl acetate	" 2,573,843	402,986
Butyl "Carbitol"	" 51,830	17,349
Butyl "Cellosolve"	" 401,981	95,829
Butyl lactate	" 10,904	2,234
Caffeine	" 35,647	70,267
Calcium arsenate	" 725,416	51,574
Calcium carbide	ton 14,226	1,465,106
Calcium carbonate (whiting and ground chalk)	lb. 35,913,961	768,121
Calcium chloride	" 2,565,608	70,460
Calcium stearate	" 28,607	9,455
Calcium sulphate (gypsum)	" 1,919,408	35,511
Camphor	" 47,509	28,151
Carbamide (see urea)		
Carbon, activated	" 392,276	117,492
Carbon bisulphide (disulphide)	" 4,876,028	246,631
Carbon black	" 2,443,657	371,191
Carbon tetrachloride	" 11,837,968	986,051
Casein	" 3,463,262	580,014
"Cellosolve" acetate	" 248,262	58,113
Cement, Portland	" 1,052,245	30,905
Chalk, ground (see calcium carbonate)		
Chalk, precipitated	" 485,150	22,631
Chloride of lime	" 1,406,520	67,326
Chlorine, liquid	" 25,599,324	908,921
Chlorophyllin	" ..	3,757
Coal - Anthracite (except for fuel)	ton 72,916	1,050,688
Bituminous (except for fuel)	" 109,821	1,573,260
Coal tar solvents, other	lb. 2,200,358	123,041
Cobalt acetate	" 7,205	6,867
Cobalt sulphate	" 7,146	3,290
Coke - Petroleum (except for fuel)	ton 838	22,183
Other	" 173,163	3,050,888
Copper sulphate	lb. 300,221	73,400
Cotton linters	" 397,404	47,337
Creosote	" 221,420	18,610
Dextrin	" 7,646,041	706,552
Diatomaceous earth ("Dicalite", Kieselguhr, "Celite", etc.)	ton 13,383	770,874
Dibutyl phthalate	lb. 695,577	195,171
D.D.T. (dichloro-diphenyl-trichloroethane)	" 918,393	188,517

TABLE 11 Materials Used: Chemical and Chemical Products Industries Group, 1960 - Continued

Item	Quantity	Cost at plant
		\$
Dinitrophenol	lb. 11,000	2,840
Dinitrotoluene (D/N/T)	" 349,017	47,809
Diphenylamine	" 4,782	1,820
Driers:		
Linoleate	" 51,523	11,743
Naphthenate	" 2,473,791	728,414
Resinate	" 36,276	6,642
Other	" ..	211,561
Dyes	" ..	51,906
Dyes, other, for blending only	" ..	132,166
Electrodes (purchased)	" ..	607,166
Ethanolamine - Di	lb. 390,850	107,055
Mono	" 849,095	217,831
Tri	" 233,014	63,709
Other	" 1,550,877	436,680
Ether, sulphuric	" 68,304	18,514
Ethyl acetate	" 3,247,854	396,798
Ethyl cellulose	" 22,734	19,376
Ethyl chloride	" 21,752,899	1,833,110
Ethyl lactate	" 4,183	2,085
Ethylene diamine	" 74,025	29,683
Ethylene dibromide	" 6,733,902	1,060,770
Ethylene oxide	" 12,645,450	1,711,282
Feldspar:		
Crude	ton 564	10,516
Ground	" -	-
Ferric chloride	lb. 58,018	4,104
Ferrous sulphate	" 671,069	18,020
Flour:		
Potato	" 153,082	13,364
Tupioca	" 213,355	24,541
Wheat	" 3,729,284	183,114
Other	" 298,759	16,266
Fluorspar	ton 87,188	2,742,261
Foats (cottonseed, olive, etc.)	lb. 4,267,143	136,182
Formaldehyde, 100% solids content	" 18,434,380	1,854,231
Fuller's earth ("Attapulgis", etc.)	ton 94	6,229
Gelatine capsules (for use in compounding)	" ..	333,938
Glucose	lb. 1,518,053	114,896
Glue - Bone and hide	" 1,350,924	384,581
Fish	" 495,795	93,569
Other	" 281,971	65,450
Glycerin - Crude	" 7,244,762	1,395,891
Refined	" 12,190,148	3,548,657
Glyceryl monooleate	" 7,400	2,915
Glycol:		
Diethylene	" 560,262	91,931
Ethylene	" 26,973,826	3,819,592
Propylene	" 2,109,372	299,220
Triethylene	" 8,070	4,049
Other grades	" 1,871,241	344,826
Graphite	" 1,323,148	476,512
Grease	" 1,556,728	114,673
Gun powder	" 715,885	444,518
Herbs, roots and vegetable drugs:		
Extracts (powders and liquids)	" ..	177,133
Raw or crude (ground or milled)	" ..	128,519
Hides and hide trimmings	ton 17,219	258,738
Hydrogen	" ..	920,777
Iodine, crude	lb. 47,952	54,100
Iron and steel scrap	ton 7,113	226,949
Javelle concentrate or sodium hypochlorite, for dilution	" ..	116,714
Kaolin (china clay)	lb. 7,940,309	214,908
Lanolin	" 171,677	68,956
Latex emulsion	" 13,058,926	2,290,029
Latex or rubber	" 5,199,088	1,161,027
Lead oxide - Litharge	" 2,558,878	342,578
Red Lead	" 1,683,967	260,133
Lead, pig	" 23,894,737	2,688,056
Lead styphnate	" 1,208	42,597
Lead sulphate	" 49,600	7,907

TABLE 11. Materials Used: Chemical and Chemical Products Industries Group, 1960 - Continued

Item	Quantity	Cost at plant
		\$
Lecithin	lb. 356,426	77,604
Lignin liquor	Imp. gal. 376,937	55,993
Lime:		
Hydrated	ton 9,609	86,745
Quick	" 33,956	604,937
Other	" 3,051	40,426
Lime or land plaster	" 687	6,759
Limestone	" 1,070,516	2,215,511
Lindane, technical	lb. 65,134	76,952
Litharge (see Lead oxide)	"	
Lithopone (30% zinc sulphide)	" 2,115,178	283,997
Magnesium oxide (all forms, including Mag. 70, solmago, brucite fines, etc.)	ton 1,783	76,943
Magnesium powder	lb. 9,869	13,370
Magnesium sulphate (Epsom salts)	" 1,261,063	49,035
Malathion, technical	" 133,727	119,812
Maleic anhydride	" 1,070,752	264,444
Malt extract	" 136,717	19,823
Meal, ivory nut and other	" 1,905,657	65,688
Menthol	" 20,509	113,442
Mercury fulminate	" 71	603
Mercury metal	" 137,371	317,376
Methyl amyl acetate	" 610,730	105,022
Methyl chloride	" 3,941,640	487,054
Methylethyl ketone	" 675,526	100,090
Methyl isobutyl ketone	" 1,363,952	226,334
Methylene chloride	" 864,038	115,704
Mica	" 2,384,002	152,759
Muriate of potash (see potassium chloride)	"	
Naphthalene	" 7,270,914	1,063,032
Natural gas (as a material in manufacturing, not for fuel)	M. cu. ft. 6,474,194	1,778,533
Nitrocellulose (nitrocotton)	" 3,202,293	1,075,682
Nitrogen solutions	ton 42,991	2,779,857
Oils:		
Castor - Raw	lb. 597,280	109,550
Other	" 4,105,597	794,860
Chinawood (tung)	" 3,804,031	725,026
Cocoanut	" 16,287,285	2,481,726
Cod	" 741,710	55,030
Cod liver	" 202,443	46,782
Essential and perfume	"	3,736,032
Fish	lb. 1,931,893	215,493
Lard	" 934,093	126,145
Linseed oil - Boiled and refined	Imp. gal. 1,057,697	1,620,190
Blown	" 298,452	509,669
Heat-bodied	" 574,643	1,054,183
Raw	" 961,120	1,374,328
Processed - Polymerol	lb. 714,533	123,723
Varnol	" 158,282	32,440
Other	Imp. gal. 142,006	241,564
Mineral	" 1,467,995	407,316
Mineral oil, white	lb. 2,908,008	321,104
Neatsfoot	" 215,521	39,537
Oiticica	" 25,611	4,911
Olive	" 16,320	4,749
Palm	" 26,001	1,261
Palm-Kernel	" 366,897	55,388
Petroleum ink oils	Imp. gal. 1,406,718	361,517
Pine	lb. 276,848	44,939
Silicone	" 52,481	107,866
Soya bean	" 17,623,438	1,970,814
Sunflower	" 533,455	92,606
Tall	" 9,247,737	488,570
Used in making carbon dioxide	gal. 2,712,344	207,564
Other	"	1,307,541
Paper board	lb. 2,931,678	257,467
Paradichlorobenzene	" 2,535,013	310,564
Penicillin	"	850,819
Pentachlorophenol	lb. 77,727	18,842
Pentaerythritol	" 4,737,497	1,420,653
Perfumes (see essential oils and perfumes)		
Petrochemical feed stocks:		
Fuel oil	Imp. gal. 10,321,790	860,629
L.P.G.'s - Butanes	" 12,769,545	903,124
Propanes	" 25,757,679	1,830,878
Other	" 60,620,247	2,870,545
Other	"	25,751,815

TABLE 11. Materials Used: Chemical and Chemical Products Industries Group, 1960 - Continued

Item	Quantity	Cost at plant
		\$
Petroleum jelly	lb. 1,083,693	126,776
Phenacetin	" 207,872	173,623
Phenobarbital and other barbiturates	" 48,786	264,154
Phenol (carbolic acid)	" 25,333,745	3,850,106
Phosphorus - Amorphous	" 44,789	25,130
Sesquisulphide	" 55,115	17,768
Yellow	ton 15,038	4,634,137
Phosphate rock	" 888,585	11,569,132
Phthalic anhydride	lb. 20,958,708	3,950,013
Pigments, Prime:		
White:		
Antimony oxide	lb. 38,443	9,892
Basic carbonate white lead - Dry	1,104,724	196,147
In oil	" 176,928	32,861
Basic silicate white lead	" 954,161	191,153
Basic sulphate white lead	" 107,682	19,333
Lithopone (30% zinc sulphide) (see Lithopone)		
Titanium dioxide (see Titanium dioxide)		
Extended titanium dioxide pigments (see Titanium dioxide extended)		
Zinc oxide - Lead free (see Zinc oxide lead free)		
Leaded	lb. 366,013	59,253
Other white pigments	" 895,680	118,294
Black:		
Lampblack	" 127,482	33,004
Bone black	" 54,535	13,230
Carbon black (see carbon black)		
Graphite (see Graphite)		
Other black pigments	" 65,574	16,857
Coloured:		
Cadmium yellow and orange pigments	" 31,064	29,744
Chrome yellow and orange pigments	" 1,680,083	629,124
Organic yellow and orange pigments	" 115,118	202,725
Other yellow and orange pigments	" 663,596	298,105
Chrome green pigments	" 776,266	335,948
Chromium oxide and hydrated green pigments	" 108,691	65,179
Phthalocyanine greens	" 84,163	267,655
Other green pigments	" 43,546	48,817
Iron blues	" 126,134	69,490
Phthalocyanine blues	" 72,204	226,081
Other blue pigments	" 123,844	135,549
Cadmium red and maroon pigments	" 57,086	140,184
Lithol reds	" 21,229	30,284
Para reds	" 86,456	75,264
Toluidine reds	" 445,525	547,876
Other red and maroon pigments	" 144,944	416,109
Iron oxides	" 3,717,771	440,614
Ochres, siennas, umbers	" 299,838	48,241
Red lead, including orange mineral (see Lead oxide)		
Litharge (see Lead oxide)		
Metallic powders (aluminum, bronze, etc.)	" 1,171,171	576,095
All other coloured pigments	" ..	4,054,696
Pigments, Extender, other	" 5,425,816	499,554
Pitch, coal tar	" 1,220,675	62,762
Plasticizers, other	" 3,339,131	1,110,873
Potassium bichromate	" 148,539	27,851
Potassium chlorate	" 775,517	110,230
Potassium chloride (muriate of potash) - 50% K ₂ O	ton 6,592	255,751
60% K ₂ O	" 137,485	4,731,900
Potassium hydroxide (caustic potash)	lb. 4,274,861	317,329
Potassium iodide	" 5,822	10,920
Potassium magnesium sulphate (sulphate of potash magnesia)	ton 4,803	155,967
Potassium nitrate (saltpetre)	lb. 601,491	42,103
Potassium perchlorate	" 78,137	13,879
Potassium-sodium tartrate (Rochelle salt)	" 10,910	2,993
Potassium sulphate (sulphate of potash)	" 38,700,731	937,028
Powders, rouges and other preparations for packing only	" ..	194,178
Propyl acetate	lb. 2,521,364	276,210
Pyrethrum	" 30,812	131,433
Quartz and quartzite	ton 62,367	255,443
Resins and Gums:		
Natural:		
Arabic	lb. 133,275	32,809
Copal	" 113,520	16,807
Dammar	" 115,869	25,448
Karaya	" 92,470	31,708
Kauri	" 9,500	1,275
Manila	" 82,515	17,616
Resin	" 2,096,750	287,905
Tagacanth	" 3,230	3,394
Other	" 1,865,439	368,977

TABLE 11. Materials Used: Chemical and Chemical Products Industries Group, 1960 - Continued

Item	Quantity	Cost at plant
		\$
Resins and Gums - Concluded:		
Synthetic:		
Acrylic	ib. 1,355,441	344,882
Styrenated alkyds	" 1,409,014	338,632
Other alkyds	" 31,130,802	5,747,846
Amines	" 1,428,463	514,818
Coumarone (Indene)	" 456,726	72,469
Epoxy's	" 1,180,584	547,652
Ester gum	" 1,401,793	294,000
Limed resin	" 286,215	45,585
Maleics	" 911,312	241,358
Modified phenolics	" 1,100,089	281,795
Pure phenolics	" 1,120,049	434,184
Polyethylene type resin (all forms for compounding only)	" 7,042,385	1,426,175
Polystyrene type resin (all forms for compounding only)	" 10,600,000	1,535,000
Urea (formaldehyde)	" 954,148	165,878
Vinyls	" 1,168,817	433,658
Other	" 16,100,390	3,819,917
Other (for compounding only)	" 4,409,821	1,000,501
Resorcinol	" 172,240	124,843
Resin, wood	" ..	1,525,357
Rotenone	lb. 174,389	49,124
Rubber, chlorinated	" 271,931	154,794
Sand	ton 38,477	124,203
Sawdust	lb. 331,784	5,068
Shellac:		
Bleached	" 1,056,914	518,511
Orange	" 189,638	62,880
Other	" 449,316	196,402
Shot	" ..	391,206
Silica sand and ground quartz	ton 41,602	578,862
Sodium acetate	ib. 75,169	12,320
Sodium azide	" 7,770	11,522
Sodium benzoate	" 16,192	6,637
Sodium bicarbonate	" 1,392,884	54,839
Sodium bichromate	" 3,323,828	458,080
Sodium bromate	" 93,290	49,721
Sodium bromide	" 49,351	17,831
Sodium carboxymethylcellulose	" 1,125,341	304,338
Sodium chlorate	" 946,160	75,947
Sodium chloride (brine)	ton 878,320	1,753,839
Sodium chloride (common salt)	" 345,389	3,407,035
Sodium fluoride	ib. 262,160	30,349
Sodium hydrosulphide	" 118,090	15,570
Sodium hydroxide (caustic soda) 100% NaOH	" 144,028,881	4,779,219
Sodium nitrate (Chile saltpetre)	" 30,212,401	832,168
Sodium phosphate - Mono	" 455,815	51,366
Di	" 738,537	68,980
Tri	" 8,827,490	574,862
Tetra	" 95,401	11,321
Sodium tetra pyrophosphate	" 1,350,728	130,587
Sodium tripolyphosphate	" 78,974,261	7,065,469
Sodium prussiate	" 448,514	62,671
Sodium salicylate	" 7,182	4,179
Sodium sesquicarbonate	" 7,655,750	240,618
Sodium silicate 40° (water glass)	" 82,261,996	1,060,222
Sodium silicate (meta)	" 2,658,282	141,404
Sodium sulphate	" 2,895,920	72,544
Sodium sulphide	" 475,272	30,805
Solvents, n.e.s.	" ..	5,408,310
Starch - Corn	ib. 2,050,044	180,113
Other	" 562,595	47,991
Steel sheets, for making containers	ton 1,641	376,494
Strontium nitrate	lb. 472,049	58,241
Styrene monomer	" 29,006,643	2,950,209
Sugar	" 4,595,682	363,021
Sulpha drugs	" ..	608,431
Sulphur	ton 216,588	6,057,725
Sulphur dioxide in smelter gases	" ..	3,347,153
Superphosphate - 16-18% P ₂ O ₅	ton 25,131	572,132
20% P ₂ O ₅	" 279,470	6,033,934
38-48% P ₂ O ₅	" 70,846	4,015,399
Ammoniated	" 16,555	531,679

TABLE 12. Alphabetical List of Products Shipped by the Chemical and Chemical Products Industries Group,
1960 - Continued

Item	Factory shipments	
	Quantity	Selling value at plant \$
Acid - Concluded:		
Hydrochloric (Muriatic, 100%)	lb. 27,769,895	1,234,282
Hydrofluoric .....	...	1
Hydrofluosilicic .....	...	1
Monochloro acetic .....	...	1
Nitric, 100% .....	...	1
Phosphoric .....	...	1
Sulphuric, all grades, including oleum as 100%	ton 859,922	18,215,323
Adhesives:		
Cement - Linoleum	lb. 5,374,100	388,321
Rubber	gal. 197,920	751,988
Glue - Bone & hide	lb. 6,329,700	1,546,544
Casein	" 1,450,755	414,528
Fish	" 471,852	203,689
Flexible	" 2,556,603	648,969
Synthetic resin:		
Polyvinyl (acetate or alcohol or both)	" 9,391,926	3,195,154
Other synthetic resin glues	"	3
Vegetable - Dry	lb. 3,996,847	581,544
Liquid	" 16,334,228	1,874,175
Latex adhesives	" 1,490,952	523,198
Paste - Dry .....	..	302,460
Liquid (including mucilage) .....	..	879,900
Other adhesives .....	..	2,172,296
Alcohol:		
Amyl .....	...	1
Butyl, Secondary .....	...	1
Butyl (normal) .....	...	1
Methyl .....	...	1
Propyl (iso) .....	...	1
Propyl (normal) .....	...	1
Alkylate, detergent .....	...	1
Aluminum chloride .....	...	1
Aluminum fluoride .....	...	1
Aluminum sulphate (alum) .....	...	1
Aminotriazole .....	...	1
Ammonia, anhydrous, 100%	ton 174,647	8,774,212
Ammonia, aqua, 26° .....	...	1
Ammonium chloride:		
Fine white .....	...	1
Galvanizers .....	...	1
Zinc - Ammonium chloride .....	...	1
Ammonium nitrate (regular grade) (see also "Fertilizers") .....	...	1
Aniline oil .....	...	1
Automobile chemicals:		
Anti-freeze preparations	gal. 8,652,513	11,821,588
Brake fluids	" 458,587	1,173,185
Radiator compounds .....	..	196,904
Other .....	..	2,106,759
Benzol .....	...	1
Boiler chemicals:		
For use by railroads .....	..	189,376
For marine use .....	..	158,083
For industrial use .....	..	3,973,974
Butyl acetate .....	...	1
Butyraldehyde .....	...	1
Calcium carbide .....	...	1
Calcium chloride .....	...	1
Calcium cyanamide .....	...	1
Calcium (acid) phosphate .....	...	1
Carbon bisulphide (disulphide) .....	...	1
Carbon tetrachloride .....	...	1
Cellulose, regenerated (cellulose film) .....	...	1
Charcoal	ton 17,316	1,080,473
Chloroform .....	...	1
Chlorine	ton 176,126	10,758,219
Cleaning preparations and washing compounds:		
Ammonia powder	lb. 463,856	55,070
Automobile cleaners .....	..	172,301
Brush cleaners .....	..	77,777
Cleaning or scouring powders, pastes and cakes	lb. 51,027,255	8,854,749
Drain pipe cleaner (not including toilet flush)	" 2,227,724	683,820

See footnotes at end of table.

TABLE 11. Materials Used: Chemical and Chemical Products Industries Group, 1960 - Concluded

Item	Quantity	Cost at plant	
		\$	
Talc, all kinds	lb.	27,484,972	717,459
Tallow, grease and other soap stock	"	74,159,957	4,233,703
Tar:			
Coal, crude	Imp. gal.	34,239,294	4,741,477
Water gas, crude	"	17,356	2,403
Titanium dioxide	lb.	33,301,131	8,612,554
Titanium dioxide, extended	"	27,972,318	3,121,796
Toluol (toluene)	"	18,050,528	766,286
Trichloroethylene	"	3,498	542
Tricresyl phosphate	"	47,188	13,483
Trinitrotoluol	"	3,440,936	399,293
Turpentine	Imp. gal.	306,369	281,792
2, 4-D-Technical	lb.	1,663,560	659,720
Urea, all kinds	"	16,169,228	1,063,000
Varnishes	Imp. gal.	926,812	1,959,296
Vinyl monomers - Vinyl acetate type	lb.	3,943,631	576,585
Other	"	20,876,800	2,874,271
Vitamins - A .....		..	482,063
B ¹ (thiamine chloride) .....		..	87,404
B ² (riboflavin) .....		..	161,409
C (ascorbic acid) .....		..	344,404
D .....		..	35,631
Wax - Beeswax	lb.	322,006	214,932
Candelilla	"	41,802	25,040
Carnauba	"	823,465	652,804
Ouricury	"	14,986	10,172
Paraffin (including slackwax)	"	55,119,065	2,393,721
Synthetic	"	1,320,259	503,382
Other	"	1,358,200	413,829
Wood - Blocks	M bd. ft.	294,178	376,435
Flour	lb.	2,057,252	51,480
Hard	cord.	18,100	196,903
Splints		-	89,059
Xylene (xylol)	lb.	18,706,631	874,799
Yarns (jute and cotton)	"	739,110	292,991
Zinc chloride	"	358,550	24,120
Zinc oxide - Pure	"	5,089,023	763,120
Leaded	"	366,013	59,253
Zinc stearate	"	128,844	35,884
Zinc sulphate	"	257,111	18,552
Containers and other packaging materials .....		...	84,763,381
All other materials .....		...	145,078,770
Operating, maintenance and repair supplies, not including fuel .....		...	38,210,957
Amount paid out to others for work done on own materials .....		...	4,472,570
Total .....		...	582,843,034

TABLE 12. Alphabetical List of Products Shipped by the Chemical and Chemical Products Industries Group, 1960

Note: This is simply a list of the principal products shipped by concerns in the Chemical and Chemical Products Industries Group. It is not intended to be a complete list of chemicals made in Canada as numerous chemicals are made in other industries; similarly, the shipments figures may not represent totals for Canada as there may have been a production in other industries.

Item	Factory shipments	
	Quantity	Selling value at plant
Acetic anhydride .....	...	\$ 1
Acetone .....	...	1
Acetylene gas (excluding acetylene under gases) .....	...	1
Acid:		
Acetic, glacial, 99½% .....	...	1
Adipic .....	...	1
Citric .....	...	1
Fatty - Coconut		
Oleic		
Stearic	lb.	8,846,948
Other (including coconut and oleic)	"	12,445,201
		Included in "Other Fatty"
		1,073,329
		1,881,009

See footnotes at end of table.

TABLE 12. Alphabetical List of Products Shipped by the Chemical and Chemical Products Industries Group,
1960 - Continued

Item	Factory shipments	
	Quantity	Selling value at plant
		\$
Cleaning preparations and washing compounds - Concluded:		
Floor cleaners .....	..	439,743
Hand soaps and pastes, mechanics'	lb. 2,706,351	501,280
Household and laundry .....	..	1,051,065
Industrial and other .....	..	1,785,590
Javelle water .....	..	9,452,511
Toilet bowl cleaner (including toilet flush)	lb. 3,892,949	668,647
Other cleaning preparations and washing compounds (including lye, sal soda and liquid starch) .....	..	6,291,058
Coke, pitch	ton 1,918	55,248
Food colours .....	..	346,197
Concrete admixtures (hardeners and proofers) .....	..	2,905,543
Creosote oil	gal. 13,744,228	3,198,275
Deodorants (except personal) .....	..	1,593,595
Detergents, synthetic organic:		
Liquid (and pastes):		
Packages (when in individual containers of less than 1 gallon)	lb. 41,377,190	14,675,143
Bulk (when in individual containers of 1 gallon or more) .....	.. 15,031,294	2,527,184
Solid (including bars, flake or powder):		
Packaged (bar or carton of 25 lbs or less)	" 150,426,564	42,828,901
Bulk (individual bars or cartons of more than 25 pounds)	" 18,258,028	3,393,710
Detergents, synthetic (not specified by type)	" 5,359,645	1,491,410
Dextrin	" 4,780,840	394,030
Dibutyl phthalate .....	...	1
Dicyandiamide .....	...	1
Diethyl phthalate .....	...	1
Disinfectants .....	..	1,386,854
Dyes, household (blended and packaged only) .....	..	103,587
Dyes, leather .....	..	109,225
Embalming fluid .....	..	313,923
Ethanolamine - Mono .....	...	1
Di .....	...	1
Tri .....	...	1
Ethyl acetate .....	...	1
Ethylene .....	...	1
Ethylene dichloride .....	...	1
Ethylene oxide .....	...	1
Explosives and Ammunition:		
Class 1 - Gunpowder .....	...	1
Class 2 - Nitrate mixtures .....	...	1
Class 3 - Nitro-compounds - Cordite .....	...	1
Dinitrotoluol .....	...	1
Dynamite .....	...	1
Trinitrotoluol .....	...	1
Class 4 - Chlorate mixtures .....	..	-
Class 5 - Mercury fulminate .....	..	-
Class 6 - Ammunition .....	...	1
Class 7 - Fireworks and pyrotechnics - Civilian .....	..	1
Military .....	..	1
Safety fuse and detonating fuse .....	...	1
Railway fuses and signals .....	...	1
Detonators - Electric .....	...	1
Other .....	...	1
Ferric chloride .....	..	-
Ferrophosphorus .....	...	1
Fertilizers:		
Mixed fertilizers	ton 784,377	42,266,850
Nitrogen solutions .....	...	1
Ammonium nitrate (fertilizer grade)	ton 294,898	15,954,811
Ammonium nitrate phosphate - 23-23-0 .....	..	1
24-20-0 .....	..	1
27-14-0 .....	..	1
Ammonium sulphate .....	..	1
Ammonium phosphate - 11-48-0 .....	..	1
13-39-0 .....	..	1
16-20-0 .....	..	1
16-48-0 .....	..	1
Ammonium sulphate, milled, screened and bagged only	ton 355	20,811
Muriate of potash milled, screened and bagged only	" 2,269	139,561
Sodium nitrate milled, screened and bagged only	" 84	6,353
Superphosphate - 22% or less P ₂ O ₅ .....	..	1
More than 22% P ₂ O ₅ .....	..	1
Superphosphate milled, screened and bagged only	ton 13,138	526,312
Flavouring extracts .....	..	360,307

See footnotes at end of table.

24487

TABLE 12. Alphabetical List of Products Shipped by the Chemical and Chemical Products Industries Group,
1960 - Continued

Item	Factory shipments	
	Quantity	Selling value at plant
		\$
Formaldehyde, 100% solids basis	lb. 21,107,707	1,645,061
Gases, compressed and liquefied:		
Acetylene	cu. ft. 209,480,259	7,849,234
Carbon dioxide, in cylinders .....	...	1
Carbon dioxide, solid (Dry Ice) .....	...	1
Nitrous Oxide .....	...	727,342
Oxygen - Gas in cylinders or for delivery by pipeline	cu. ft. 1,836,199,766	12,331,906
Glycerin - Crude	lb. 2,017,000	524,988
Refined - B.P. and U.S.P. grade	" 5,951,484	1,859,997
Dynamite grade	" 2,916,223	858,539
Other grades	" 2,603,508	862,882
Glycols - Ethylene .....	...	1
Diethylene .....	...	1
Triethylene .....	...	1
Propylene .....	...	1
Dipropylene .....	...	1
Grease	lb. 3,926,173	326,327
Guanidine nitrate .....	...	1
Hexamethylenediamine .....	...	1
Hydrogen chloride, anhydrous .....	...	1
Hydrogen peroxide, liquid .....	...	1
Inks, printing:		
Letterpress	lb. 6,854,415	6,415,199
Lithographing	" 3,597,951	4,642,032
Newspaper	" 16,491,160	2,204,198
Stamping	" 68,980	69,715
Other, including silk screen and stencil inks	" 6,544,945	3,007,501
Inks, writing .....	...	287,636
Latex .....	...	1
Lead arsenate .....	...	1
Leather dressings and finishes (except polish) .....	...	1,446,445
Lighter fluid .....	...	270,843
Lignosol .....	...	1
Lime, quick .....	...	1
Matches:		
In books	No. 727,603,930	3,025,486
Other (Cases of 144 boxes) (Cases of 720 boxes) .....	...	1
Medicinals and pharmaceuticals:		
Medicines and pharmaceuticals:		
Registered as patent medicines and sold without all ingredients declared .....	..	24,442,717
Antibiotics and preparations:		
Penicillin preparations (injectable vials and other dosage forms) .....	..	4,260,360
Streptomycin and dihydrostreptomycin, dosage forms .....	..	327,744
Penicillin-streptomycin combinations, dosage forms .....	..	754,133
Antibiotics (bulk) and antibiotic preparations, n.e.s. ....	..	15,846,815
Sulphonamide (sulpha) preparations with or without other active ingredients .....	..	1,603,196
Vitamins and preparations:		
Vitamins, in bulk .....	...	Included with "All Other Human Medicines"
Vitamin preparations in which the principal active ingredients are vitamins .....	..	17,211,147
Biologicals and vaccines, excluding sex hormones .....	..	3,940,726
Sex hormones .....	..	2,663,821
Oral antiseptics .....	..	1,551,536
Ethical preparations for human use .....	..	60,635,336
All other human medicines (including medicinal chemicals and products not identified by type .....	..	18,256,477
Feed supplements and their ingredients .....	..	3,361,551
Veterinary medicines .....	..	3,782,551
Methyl chloride .....	...	1
Methylethyl ketone .....	...	1
Methylisobutyl carbinoi .....	...	1
Methylisobutyl ketone .....	...	1
Naphthalene (excluding fumigants) .....	...	1
Nitrobenzol .....	...	1
Oils, except sulphonated listed below .....	...	2,271,260
Oils, sulphonated .....	...	308,082
Pads, metal soap - Impregnated metal pads (soap and other detergents) .....	...	1
Pads, metal, not impregnated (soap and other detergents in package)	-	-
Paints and paint products:		
Paste paints (not including water-paste paints)	lb. 591,447	163,982
Semi-paste paints (not including water-thinned type)	gal. 60,566	282,809
Ready mixed paints and enamels - Exterior type	" 10,955,445	45,218,952
Interior type	" 11,404,434	50,530,280

See footnotes at end of table.

TABLE 12. Alphabetical List of Products Shipped by the Chemical and Chemical Products Industries Group,
1960 - Continued

Item	Factory shipments	
	Quantity	Selling value at plant
		\$
Paints and paint products - Concluded:		
Water-thinned paints and enamels:		
Latex base emulsion paints	gal. 4,643,312	18,200,264
Resin and other bases emulsion paints (paste and semi-paste)	" 372,877	1,155,387
Casein and other protein bound, glue bound:		
Dry	lb. 595,748	81,292
Paste and semi-paste	gal. 4,570	10,326
Plastic texture paste and dry	lb. 230,562	30,298
Calcimines	" 373,253	48,964
Lime and cement bound	" 1,377,134	185,866
Other water-thinned paints	" ..	122,999
Lacquers - Cellulose type	gal. 2,342,467	7,388,716
Non-cellulose types	" 223,804	881,344
Stains (including varnish stains)	" 300,074	954,128
Thinners and reducers	" 2,883,717	4,356,922
Varnishes (for interior and exterior use including shellac, varnish, natural and synthetic resin base varnishes, japans, etc.)	" 3,059,418	9,165,483
Insulating varnishes, electrical types	lb. 2,091,805	577,437
Paint and varnish removers	gal. 178,065	544,667
Paraldehyde .....	...	1
Patching materials - For walls	lb. 15,697,517	1,372,545
For floors	" 1,062,941	257,024
Pentaerythritol .....	...	1
Perchloroethylene .....	...	1
Pest control products:		
Agricultural dusts and sprays (arsenicals, synthetic organics, copper compounds and seed treatments) .....	..	2,453,922
Herbicides (chlorates, borates, 2, 4-D, 2, 4, 5-T, etc.) .....	..	3,572,014
Other agricultural dusts and sprays .....	..	2,187,290
Household and industrial insecticides (fumigants, powders, dusts, sprays and repellents) .....	..	2,310,102
Rodenticides (mouse and rat poisons, gopher poisons, etc.) .....	..	100,057
Other pest control products .....	..	4,114,527
Phenacetin .....	...	1
Phenol .....	...	1
Phosphorus - Amorphous .....	...	1
Yellow .....	...	1
Sesquisulphide .....	...	1
Phthalic anhydride .....	...	1
Pigments, lakes and toners:		
White:		
Basic carbonate white lead - Dry .....	...	1
In oil .....	...	1
Basic sulphate white lead .....	...	1
Titanium dioxide .....	...	1
Zinc oxide .....	...	1
Other white pigments .....	...	1
Black:		
Acetylene black .....	...	1
Carbon black .....	...	1
Coloured:		
Chrome yellow and orange pigments .....	..	1
Organic yellow and orange pigments .....	..	1
Other yellow and orange pigments .....	..	1
Chrome green pigments .....	..	1
Chromium oxide and hydrated green pigments .....	..	1
Other green pigments .....	..	1
Iron blues .....	..	1
Other blue pigments .....	..	1
Lithol reds .....	..	1
Toluidine reds .....	..	1
Para reds .....	..	1
Other red and maroon pigments .....	..	1
Iron oxide pigments .....	..	1
Iron oxides, synthetic .....	..	1
Lead oxide - Litharge .....	..	1
Red lead .....	..	1
Other coloured pigments .....	..	23,954,642
Colours in oil	gal. 21,471	195,955
Pitch - Roofing	ton 30,407	1,434,734
Other	" 89,372	3,739,590
Polishes:		
Automobile .....	..	1,180,225
Brass .....	..	80,739
Floor wax - Paste	lb. 9,051,394	3,984,718
Liquid (including self polishing)	gal. 5,060,888	13,820,916
Furniture cream and oil .....	..	495,270
Silver - Paste, liquid and cream .....	..	197,586
Shoe - Paste .....	..	642,557
Liquid or cream .....	..	449,528
Save .....	..	20,831
Other polishes .....	..	246,775

See footnotes at end of table.

TABLE 12. Alphabetical List of Products Shipped by the Chemical and Chemical Products Industries Group.
1960 - Continued

Item	Factory shipments	
	Quantity	Selling value at plant
		\$
Potassium chlorate .....	...	1
Potassium citrate .....	...	1
Potassium hydroxide (as 100% KOH).....	...	1
Printers' rollers .....	..	1,088,756
Putties, glazing and caulking compounds:		
Caulking compounds	lb. 5,471,912	1,048,606
Wood and metal sash putties	" 13,778,291	1,675,961
Resins, synthetic (made as such):		
Alkyd type (excluding polyesters) .....	..	5,294,000
Alkyd polyester type .....	..	2,465,000
Casein type .....	...	1
Cellulose acetate type .....	...	1
Epoxy type .....	...	1
Melamine type .....	...	1
Phenol-formaldehyde type .....	..	8,902,000
Polyethylene type .....	...	1
Polystyrene type	lb. 55,839,000	10,261,000
Urea-formaldehyde type .....	..	1,931,000
Vinyl chloride type	lb. 38,862,000	10,013,000
Vinyl resins other .....	..	1
Other types .....	..	40,789,000
Resins, synthetic (compounded only).....	..	7,674,915
Rubber, synthetic	lb. 335,872,000	76,038,587
Rust preventatives .....	..	595,987
Soaps, Hard:		
Bar laundry and household soaps - Built	lb. 1,426,886	208,298
Not built	" 12,471,020	2,453,824
Soap chips and flakes - In household packages (under 25 pounds)	" 3,540,086	972,330
In bulk (except textile and mill) (25 pounds and over)	" 10,003,177	1,341,590
Toilet soaps (except liquid) (when less than 2 pounds each)	" 41,164,614	15,597,249
Castile soaps	" 390,715	61,213
Soap powders (granulated, powdered and sprayed, containing more than 25% anhydrous soap) - In household packages (under 25 lbs)	" 15,679,996	4,456,813
In bulk (25 pounds and over)	" 15,540,387	2,199,870
Liquid soaps (potash and others) - Packaged (when in individual containers of less than 1 gallon)	" 952,580	102,343
Bulk (when in individual containers of 1 gallon or more)	" 12,522,047	2,133,520
Paste and jelly - Packaged (when in individual containers of 25 pounds or less)	" 835,375	98,912
Bulk (when in individual containers of more than 25 pounds)	" 3,158,511	335,970
Shaving soaps - Lather type (creams)	" 934,485	1,333,304
Brushless type (creams)	" 465,946	531,685
All other (cakes, sticks, etc.)	" 407,917	450,185
Soaps, other	" 4,000,498	679,650
Sodium acid pyrophosphate .....	...	1
Sodium azide .....	...	1
Sodium benzoate .....	...	1
Sodium carbonate (soda ash) .....	...	1
Sodium chlorate .....	...	1
Sodium citrate .....	...	1
Sodium cyanide .....	...	1
Sodium (mono) glutamate .....	...	1
Sodium hydrosulphide .....	...	1
Sodium hydroxide (caustic soda) as 100% NaOH).....	ton 264,082	14,597,177
Sodium hypochlorite .....	...	1
Sodium metaphosphate .....	...	1
Sodium silicate .....	...	1
Sodium metasilicate .....	...	1
Sodium sulphite, anhydrous .....	...	1
Sodium thiosulphite .....	...	1

See footnotes at end of table.

TABLE 12. Alphabetical List of Products Shipped by the Chemical and Chemical Products Industries Group, 1960 - Concluded

Item	Factory shipments	
	Quantity	Selling value at plant
		\$
Sodium tripolyphosphate	1
Monosodium phosphate	1
Disodium phosphate - 12 hydrate	1
2 hydrate	1
Anhydrous	1
Trisodium phosphate	1
Tetrasodium phosphate - 10 hydrate	1
Anhydrous	1
Stearates (metallic soaps):		
Aluminum	1
Calcium	1
Magnesium	1
Zinc	1
Other	1
Stearin	1
Styrene monomer	1
Sulphur (elemental)	1
Sulphur dioxide - Liquid	1
Sweeping powders	1,336,612
Tar, road, other (including refined)	gal. 2,453,148	522,290
Textile and leather specialties	4,241,948
Toilet Preparations:		
Bath salts and bath oils	1,681,823
Creams of all kinds, except medicinal type (almond cream, cold cream, etc.)	4,660,169
Dentifrices - Pastes	lb. 7,466,024	12,012,876
Powders and liquid	434,157
Deodorants (personal)	4,331,769
Depilatories (personal)	314,803
Gift sets	3,317,498
Hair sprays (aerosol fixatives)	1,532,680
Home permanent wave kits, including refills and accessories	2,748,088
Other hair preparations (tonics, rinses, dyes, brillantines, wave-sets etc.)	12,066,762
Lip preparations (lipsticks, lip rouge, lip colour, lip pomade, etc.)	4,119,911
Lotions (excluding hair and after-shave lotions)	3,892,554
Manicuring preparations (including nail lacquers, polishes and cuticle preparations)	1,422,736
Perfumes	1,740,108
Powders, body (excluding after shave talc)	3,609,937
Powders, face	2,185,209
Powders, sachet	270,701
Rouges, including theatrical but excluding lip	373,636
Shampoos	6,474,524
Shaving preparations (except soap):		
After-shave lotions	1,625,525
Shaving preparations, n.e.s. (such as after-shave septics, after-shave talc, beard softeners, etc.)	471,952
Toilet waters and colognes	3,648,355
All other toilet preparations	6,515,418
Toluene (toluol)	1
Trichloroethylene - Refined	1
Turpentine	1
2-Ethyl hexanol	1
Vanillin	1
Vinyl acetate monomer	1
Vinyl chloride monomer	1
Wall size and other sizing materials	lb. 179,321	42,936
Wax, paraffin	1
Wax, sealing	1
Wood preservatives	925,640
Zinc chloride (50% solution)	1
Amount received in payment for work done on materials owned by others	1,940,074
All other products	412,754,331
Total	1,373,466,548

¹ Included in "All other products".

² The largest volume of adhesives in this class is accounted for by a group of urea-formaldehyde and phenol-formaldehyde resin solutions which are sold for other applications as well. Under these circumstances it is difficult to develop separate comprehensive figures for this class of adhesive which are not likely to be subject to misinterpretation. For this reason details on this class of adhesive are omitted; however, the reader is referred to totals for urea-formaldehyde and phenol-formaldehyde resins for all applications which are carried in Table 5 of the report Manufacturers of Plastics and Synthetic Resins, Catalogue No. 46-211.

³ Grouped under "Other coloured pigments" because less than three firms reporting.



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TABLE 13. Fuel and Electricity Used in the Chemical and Chemical Products Industries, 1960

Kind	Quantity	Cost at plant	
		\$	
Establishments reporting commodity detail:			
Bituminous coal:			
(a) From Canadian mines	ton 57,129		666,200
(b) Imported	" 965,814		8,012,491
Sub-bituminous coal (from Alberta mines only)	" 91		1,122
Anthracite coal	" 2,037		32,125
Lignite coal	" 538		3,812
Coke	" 14,341		100,240
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 2,393,257		853,607
Fuel oil including kerosene or coal oil	" 56,110,794		4,995,895
Wood	cord 77		1,174
Gas:			
(a) Liquefied petroleum gases	Imp. gal. 274,362		69,479
(b) Other manufactured gas	M cu. ft. 6,992,789		3,689,287
(c) Natural gas	" 20,318,421		4,420,610
Other fuel			413,657
Electricity purchased	kwh. 5,946,275,887		24,821,847
Steam purchased			6,393,656
Establishments reporting group detail:			
Cost of fuel .....		...	64,431
Cost of electricity .....		..	26,973
Estimate for establishments for which no data were collected:			
Cost of fuel and electricity .....		...	327,355
All establishments:			
Total cost of fuel and electricity .....		...	54,893,981

Note: For Data by industries for 1960 refer to separate industry reports.

TABLE 14. Imports into Canada and Exports of Chemicals and Allied Products, 1920-60

(Values in thousands of dollars)

Year	Total Canada	From or to United Kingdom		From or to United States	
		\$	%	\$	%
(a) Imports					
1920	40,010	6,811	17.0	31,330	78.6
1925	27,653	4,300	15.6	18,327	66.3
1930	36,785	4,709	12.8	23,960	65.0
1935	29,757	6,331	21.3	17,458	58.7
1940	51,824	7,546	14.5	41,493	80.1
1945	79,759	4,748	5.9	71,309	89.4
1951	191,813	16,188	8.4	165,061	86.1
1952	187,713	12,225	6.5	166,249	88.6
1953	221,834	18,551	8.3	191,812	86.5
1954	220,406	18,590	8.4	190,489	86.4
1955	260,499	22,626	8.6	222,612	85.4
1956	288,586	22,639	7.9	250,365	86.6
1957	293,821	23,168	7.9	252,947	86.1
1958	290,358	23,553	8.1	246,950	85.1
1959	326,987	26,246	8.0	275,125	84.1
1960	338,652	24,909	7.3	282,723	83.4
(b) Exports					
1920	21,432	4,159	19.5	11,644	54.3
1925	17,450	3,451	19.8	8,937	51.2
1930	16,321	3,332	20.4	9,003	55.2
1935	16,372	3,022	18.5	7,983	48.7
1940	31,223	8,343	26.7	10,846	34.7
1945	111,318	16,437	14.8	51,891	46.6
1951	131,690	10,370	7.9	67,253	51.1
1952	124,565	9,712	7.8	75,107	60.3
1953	137,885	8,551	6.2	84,598	61.4
1954	161,293	15,676	9.8	85,910	53.3
1955	210,040	19,945	9.5	111,724	53.2
1956 ¹	182,854	21,283	11.6	84,975	46.4
1957	195,303	28,480	14.5	77,963	39.9
1958	197,051	35,752	18.1	79,399	40.3
1959	201,729 ¹	27,382	13.5	85,910	42.4
1960	237,779	34,088	14.3	92,312	38.8

¹ Revised. Uranium ores and concentrates excluded from 1956 and subsequent years.