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GOVERNMENT OF CANADA



CHEMICALS AND ALLIED PRODUCTS

1949



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CHEMICALS AND ALLIED PRODUCTS

1949

General Review

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Prepared in the Mining, Metallurgical and Chemical Section
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NOTICE

The Industry and Merchandising Division of the Bureau of Statistics collects and compiles figures on (a) the primary industries in Canada—mining, forestry and fishing; (b) manufacturing; (c) construction, and (d) merchandising and services.

For the purpose of annual compilation and publication, the manufacturing industries have been classified into major groups, prefaced by two reports of a general nature, as follows:

- I Summary Report on Manufacturing Industries
- II Manufacturing Industries by Geographical Distribution
- III Foods and Beveragee
- IV Tobacco and Tobacco Products
- V Rubber Products
- VI Leather Products
- VII Miscellaneous Manufactures
- VIII Textiles
- IX Wood and Paper Products
- X Printing Trades
- XI Operations in the Woods
- XII Iron and Steel Products
- XIII Transportation Equipment
- XIV Non-ferrous Metal Products
- XV Electrical Apparatus and Supplies
- XVI Non-metallic Mineral Products
- XVII Products of Petroleum and Coal
- XVIII Chemicals and Allied Products

The present report belongs in Group XVIII. It is punched to permit of filing in a ring binder along with others of the group. The reports in this group are:

- A General Review
- B The Acids, Alkalies and Salts Industry
- C The Fertilizers Industry
- D The Fertilizer Trade in Canada
- E The Medicinal and Pharmaceutical Preparations Industry
- F The Paints, Varnishes and Lacquers Industry
- G The Primary Plastics Industry
- H The Soaps, Washing Compounds and Cleaning Preparations Industry
- I The Toilet Preparations Industry
- J The Vegetable Oil Industry
- K The Inks Industry
- L The Adhesives Industry
- M The Polishes and Dressings Industry
- N The Compressed Gases Industry
- O The Coal Tar Distillation Industry
- P The Miscellaneous Chemical Products Industry

CHEMICALS AND ALLIED PRODUCTS

1949

General Review

The chemical and allied industries kept pace with the general high level of industrial production in Canada in 1949. Value of output in 1949 for this group of industries was \$587.4 millions or 1.3 per cent more than the former peace-time high of \$579.8 millions reached in 1948. Except for soaps, medicinals, adhesives and vegetable oils, the production and domestic consumption were greater than in any other year. Shipments for exports, however, were 11.4 per cent lower than in 1948.

Ten of the 14 industries in this group showed substantial gains in output in 1949 compared with the previous year. The percentage increases were as follows: coal tar distillation, 15.5; polishes, 17.7; primary plastics, 27.9; toilet preparations, 11.7; miscellaneous, 7.8; compressed gases, 6.9; fertilizers, 5.3; inks, 7.9; heavy chemicals, 5.4; and paints, 1.9. Output from the soaps industry declined 7.7 per cent, adhesives dropped 9.6 per cent, vegetable oils about 19.5 per cent, and medicinal preparations, 0.3 per cent.

In the entire group in 1949 there were 1,037 plants with 41,328 employees and aggregate payroll amounting to \$100.7 millions. The 531 works in Ontario accounted for 51 per cent of the employees and 56 per cent of the production, and the 334 establishments in Quebec accounted for 38 per cent of the workers and 29 per cent of the output value. British Columbia had 67 plants with an aggregate output of \$49 millions.

Imports of chemicals and allied products rose 10 per cent in 1949 to \$130.6 millions, the gains being mainly in drugs and pharmaceuticals, cellulose plastics, fertilizers and in miscellaneous chemicals. Purchases from the United States were worth \$115 millions or 88 per cent of the total value, and purchases from the United Kingdom amounted to \$8.4 millions or 6.5 per cent of the total. Imports from France were worth \$1.8 millions, from Switzerland, \$1.1 millions, and from Germany \$1.0 millions. Ten years ago the value of imports from all countries was \$51.8 millions and in 1930 it was \$36.8 millions.

Exports declined again for the third successive year, the value for 1949 being \$70.7 millions compared with \$79.8 millions in 1948 and \$83.8 millions in 1947. Fertilizers at \$39.4 millions accounted for 56 per cent of the total exports. Synthetic resins were of next importance at \$4.9 millions, then sodium compounds at \$4.2 millions, medicinals including penicillin and streptomycin at \$3.8 millions, acids at \$2.7 millions, calcium compounds at \$1.9 millions, and pigments and colours at \$1.2 millions.

Canada's chemical and allied industries have shown impressive growth in the past decade. Since 1940 there has been a threefold increase in output value, from \$194 millions to \$587 millions, but probably as much as one-half of this gain was due entirely to increases in commodity prices. The index of volume of production has advanced over this period from 120.1 to 182.2, indicating a physical expansion in output of approximately 51 per cent. Forecasts on capital expenditures by firms in this field indicate that \$37.8 millions was spent on new buildings and equipment in 1950 and a further \$21.2 millions on maintenance and repairs of capital equipment.

Employment in the chemical industries increased from 27,682 in 1940 to 41,328 in 1949, and payments in salaries and wages advanced from \$38.6 millions to \$100.7 millions. From the employment standpoint the medicinals industry was most important in 1949 with 7,658 workers, the miscellaneous industry was next with 7,145 persons on its payrolls, then paints with 6,035 employees, heavy chemicals with 5,861, and soaps with 3,637.

CHEMICALS AND ALLIED PRODUCTS

TABLE 1. Principal Statistics for the Chemicals and Allied Products Group, by Industries, 1948 and 1949.

Industry	Establishments	Employees	Salaries and wages for year	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works
						No.
1948						
Acids, alkalies and salts	29	5,889	15,348,441	7,752,690	22,551,999	70,600,246
Fertilizers	33	3,169	8,015,656	2,227,565	30,043,381	63,986,427
Medicinals and pharmaceuticals	215	7,641	15,414,695	694,489	26,576,177	71,714,274
Paints and varnishes	114	5,558	12,341,334	616,688	44,436,957	81,278,591
Primary plastics	12	1,149	2,770,529	331,932	7,630,498	16,440,747
Soaps, washing compounds and cleaning preparations	149	3,351	8,124,916	895,339	38,839,732	67,586,991
Toilet preparations	90	1,658	2,749,569	70,163	6,538,843	17,044,566
Vegetable oils	16	819	1,885,451	426,314	51,390,930	63,673,373
Inks	32	642	1,711,536	72,214	3,834,263	8,287,580
Adhesives	25	771	1,829,603	356,191	4,701,297	8,660,211
Polishes and dressings	53	723	1,405,214	68,841	5,182,670	10,080,458
Compressed gases	45	1,156	2,613,283	404,455	2,180,518	11,314,387
Coal tar distillation	11	380	881,907	542,630	5,076,131	8,077,247
Miscellaneous chemical products	202	6,642	14,233,637	3,507,902	44,058,478	81,082,411
Total	1,026	39,548	89,325,771	17,967,413	293,041,874	579,827,509
1949						
Acids, alkalies and salts	28	5,881	16,504,908	7,355,353	27,392,521	74,411,796
Fertilizers	32	3,269	9,004,943	1,772,400	31,671,468	67,428,067
Medicinals and pharmaceuticals	218	7,658	16,116,592	593,187	22,900,555	71,502,135
Paints and varnishes	112	6,035	14,137,815	622,236	42,427,832	62,860,500
Primary plastics	14	1,286	3,496,087	461,318	10,897,184	21,022,219
Soaps, washing compounds and cleaning preparations	143	3,637	9,373,882	963,732	31,029,359	62,398,211
Toilet preparations	94	1,720	3,008,556	74,090	7,088,024	19,047,435
Vegetable oils	15	829	2,122,103	477,054	41,631,796	51,241,541
Inks	32	704	1,968,794	63,286	4,002,313	8,939,638
Adhesives	25	749	1,727,848	339,839	4,218,359	7,824,564
Polishes and dressings	57	797	1,655,980	77,603	5,918,662	11,865,149
Compressed gases	48	1,223	3,230,904	431,855	1,979,160	12,091,176
Coal tar distillation	11	415	1,166,863	549,310	4,786,640	9,332,787
Miscellaneous chemical products	208	7,145	17,175,387	5,436,456	44,065,072	87,432,997
Total	1,037	41,328	100,690,662	19,217,719	280,008,945	587,398,215

TABLE 2. Principal Statistics for the Chemicals and Allied Products Group, by Provinces, 1948 and 1949

Province	Establishments	Employees	Salaries and wages for year	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works
						No.
1948						
Prince Edward Island and Nova Scotia	17	383	738,884	146,219	4,545,433	6,864,116
New Brunswick	7	174	374,262	59,385	3,499,732	4,686,912
Quebec	337	14,515	31,228,974	4,862,240	79,100,944	170,377,188
Ontario	523	20,538	47,816,697	11,214,884	167,964,964	322,675,904
Manitoba	38	724	1,342,911	110,785	6,495,884	11,610,034
Saskatchewan	11	170	332,408	46,212	4,118,240	5,141,516
Alberta	21	491	1,130,737	635,923	3,878,515	8,882,123
British Columbia	72	2,553	8,361,098	891,785	23,438,162	49,589,716
Canada	1,026	39,548	89,325,771	17,967,413	293,041,874	579,827,509

TABLE 2. Principal Statistics for the Chemicals and Allied Products Group, by Provinces, 1948 and 1949 - Concluded

Province	Establishments	Employees	Salaries and wages for year	Cost of fuel and electricity at works	Cost of materials at works	Selling value of products at works
	No.	No.	\$	\$	\$	\$
1949						
Newfoundland	8	95	186,636	12,015	627,873	953,020
Prince Edward Island and Nova Scotia	17	355	771,831	135,947	4,244,185	7,108,115
New Brunswick	7	145	353,743	63,804	3,445,129	4,520,183
Quebec	334	15,514	36,348,846	4,258,012	76,966,471	167,323,336
Ontario	531	21,153	52,650,741	13,524,170	158,607,175	330,495,870
Manitoba	42	766	1,530,349	123,878	7,297,881	13,244,323
Saskatchewan	11	220	577,946	48,980	4,115,150	5,574,878
Alberta	20	599	1,592,201	712,964	3,452,467	9,318,559
British Columbia	67	2,479	6,678,369	337,949	21,252,614	48,859,931
Canada	1,037	41,328	100,690,662	19,217,719	280,008,945	587,398,215

TABLE 3. Employees and Their Earnings in the Chemicals and Allied Products Group, by Industries and by Provinces, 1949

	Number of employees					Earnings		
	Supervisory and office		Production and related workers		Total	Supervisory and office	Production and related workers	Total
	Male	Female	Male	Female		\$	\$	\$
(a) By Industries:								
Acids, alkalies and salts	1,096	325	4,394	46	5,861	4,822,728	11,682,180	16,504,908
Fertilizers	659	201	2,390	19	3,269	2,770,227	6,234,716	9,004,943
Medicinals and pharmaceuticals	1,622	1,384	2,274	2,378	7,658	8,427,656	7,688,936	16,116,592
Paints and varnishes	1,696	836	3,115	388	6,035	6,557,144	7,580,671	14,137,815
Primary plastics	337	128	787	34	1,286	1,466,477	2,029,610	3,496,087
Soaps, washing compounds and cleaning preparations	1,000	501	1,672	464	3,637	4,270,295	5,103,587	9,373,682
Toilet preparations	263	322	375	760	1,720	1,485,708	1,522,848	3,008,556
Vegetable oils	202	67	559	1	829	820,678	1,301,425	2,122,103
Inks	130	84	451	39	704	799,897	1,168,897	1,965,794
Adhesives	185	69	485	30	749	570,317	1,157,531	1,727,848
Polishes and dressings	187	149	262	199	797	887,144	768,836	1,655,980
Compressed gases	316	244	660	3	1,223	1,491,331	1,739,573	3,230,904
Coal tar distillation	74	28	313	—	415	303,946	862,917	1,166,863
Miscellaneous chemical products	1,657	772	3,824	892	7,145	7,168,892	10,006,695	17,175,387
Total	9,404	5,110	21,561	5,253	41,328	41,842,240	58,848,422	100,690,662
(b) By Provinces:								
Newfoundland	23	5	51	16	95	64,743	121,893	186,636
Prince Edward Island and Nova Scotia	89	38	238	10	355	272,919	498,912	771,831
New Brunswick	23	7	114	1	145	71,353	282,390	353,743
Quebec	4,020	2,074	7,229	2,191	15,514	17,254,330	19,094,516	36,348,846
Ontario	4,428	2,681	11,239	2,805	21,153	20,771,892	31,878,849	52,650,741
Manitoba	168	87	409	104	768	654,818	875,531	1,530,349
Saskatchewan	95	42	78	5	220	387,131	190,815	577,946
Alberta	126	45	403	25	599	514,164	1,078,037	1,592,201
British Columbia	452	131	1,800	96	2,479	1,850,890	4,827,479	6,678,369
Canada	9,404	5,110	21,561	5,253	41,328	41,842,240	58,848,422	100,690,662

CHEMICALS AND ALLIED PRODUCTS

TABLE 4. Production and Related Workers (Wage Earners) in the Chemicals and Allied Products Group, by Industries and by Months, 1949

Month	Acids, alkalies and salts	Fertilizers	Medicinals and pharma- ceuticals	Paints and varnishes	Primary plastics	Soaps and cleaning preparations	Toilet preparations	
(Number)								
January	4,666	2,359	4,646	3,444	799	2,026	977	
February	4,587	2,436	4,729	3,480	787	2,023	971	
March	4,503	2,538	4,697	3,550	791	1,980	978	
April	4,479	2,645	4,649	3,630	792	1,947	981	
May	4,521	2,668	4,609	3,727	810	1,992	975	
June	4,543	2,345	4,670	3,598	812	2,217	1,102	
July	4,406	2,321	4,553	3,537	816	2,240	1,131	
August	4,388	2,392	4,674	3,487	815	2,253	1,249	
September	4,359	2,283	4,624	3,412	827	2,312	1,364	
October	4,234	2,343	4,641	3,416	863	2,292	1,401	
November	4,278	2,303	4,690	3,449	855	2,244	1,336	
December	4,303	2,294	4,624	3,371	885	2,148	1,160	
Total	53,267	28,827	55,806	42,101	9,852	25,674	13,625	
(Number)								
	Vegetable oils	Inks	Adhesives	Polishes and dressings	Compressed gases	Coal tar distillation	Miscellaneous	Total
January	616	477	582	483	646	291	4,691	26,683
February	618	478	569	446	835	290	4,610	26,657
March	572	462	554	447	642	289	4,665	26,668
April	566	467	571	458	648	299	4,765	26,897
May	529	478	545	470	671	325	4,807	27,127
June	543	490	543	486	679	324	4,881	27,233
July	500	497	485	492	681	316	4,891	26,666
August	509	505	472	483	689	320	4,756	26,994
September	547	505	461	458	672	337	4,605	26,786
October	598	516	483	445	665	331	4,656	26,884
November	577	514	443	443	658	316	4,608	26,716
December	558	520	442	427	654	318	4,598	26,302
Total	6,733	5,907	6,170	5,518	7,940	3,758	56,535	321,813

TABLE 5. Production and Related Workers (Wage Earners) in the Chemicals and Allied Products Group, by Provinces and by Months, 1949

Month	New- foundland	Prince Edward Island and Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Sask- atchewan	Alberta	British Columbia	Canada
(Number)										
January	61	235	124	9,659	13,732	478	65	400	1,909	26,683
February	61	254	123	9,631	13,741	491	81	407	1,868	26,657
March	65	260	116	9,598	13,723	476	83	410	1,937	26,668
April	69	287	148	9,620	13,672	484	89	408	1,922	26,897
May	75	298	163	9,572	14,028	505	91	418	1,977	27,127
June	78	256	97	9,384	14,391	548	93	447	1,941	27,233
July	76	247	89	9,253	14,209	534	85	448	1,925	26,866
August	78	247	108	9,338	14,304	508	88	425	1,898	28,994
September	68	219	113	9,271	14,204	536	84	445	1,846	26,786
October	63	231	105	9,261	14,233	571	82	451	1,887	26,884
November	61	218	98	9,318	14,131	554	70	450	1,816	26,716
December	62	223	97	9,136	13,925	492	60	432	1,855	26,302
Total	817	2,875	1,381	113,041	168,493	6,175	1,011	5,139	22,781	321,813

TABLE 6. Alphabetical List of Materials Used in the Industries in the Chemicals and Allied Products Group, 1949

Item		Quantity	Cost at works
Acetic anhydride	lb.	19,428	2,823
Acetone	lb.	3,090,123	344,036
Acetylene	cu. ft.	85,250,893	573,009
Acid:			\$
Acetic	lb.	764,080	63,863
Acetysalicylic	lb.	669,115	276,359
Arsenic (As_2O_3)	lb.	1,831,089	100,432
Benzolic	lb.	6,686	3,258
Boric or boracic	lb.	410,616	40,995
Citric	lb.	691,659	195,540
Cresylic	lb.	56,455	13,022
Fatty, n.e.s.	lb.	3,103,334	278,851
Formic	lb.	101,962	19,602
Gallic	lb.	1,063	1,710
Hydrochloric (muriatic)	lb.	6,040,750	106,528
Naphthenic	lb.	1,636,000	151,740
Nitric	lb.	7,620,300	341,001
Oleic	lb.	950,407	154,870
Oxalic	lb.	142,400	21,233
Phosphoric	lb.	594,894	39,116
Stearic	lb.	897,019	165,450
Sulphuric	lb.	1,052,773,982	3,537,931
Tannic	lb.	3,402	4,352
Tartaric	lb.	581,773	205,239
Alcohol:			
Amyl (Fused oil)	gal.	70	125
Butyl	lb.	2,446,790	368,565
Ethyl	gal.	1,034,670	1,278,938
Methyl (wood), refined	gal.	136,570	121,347
Aluminum rod, strip, etc.	lb.	46,164	16,003
Aluminum hydrate	lb.	21,158,300	423,166
Aluminum sulphate (alum)	lb.	400,923	6,916
Ammonia:			
Anhydrous	lb.	126,534,636	2,577,158
Liquor	—	—	421,317
Ammonium chloride	lb.	130,399	9,433
Ammonium nitrate	lb.	44,549,857	1,521,402
Ammonium phosphate	ton	5,636	403,439
Ammonium sulphate	ton	38,843	1,741,489
Amyl acetate	lb.	613,077	117,736
Arsenic, white (As_2O_3)	lb.	49,313	3,905
Asphalt	gal.	4,381,809	576,376
Barium chloride	lb.	319,817	19,239
Barium nitrate	lb.	86,087	12,333
Barytes	lb.	2,826,420	77,797
Bentonite (Filtroi, Pembina, etc.)	ton	871	64,310
Benzoi	lb.	2,034,709	77,695
Bismuth metal	lb.	16,984	34,647
Bismuth salts	lb.	17,888	56,354
Black, lamp, bone and other, n.e.s.	lb.	339,844	58,232
Blanc Fixe	lb.	417,945	19,194
Blood, dried	ton	50	3,929
Blue, ultramarine	lb.	244,406	62,577
Bone meal and bone flour	ton	304	27,469
Bones	ton	12,897	538,128
Borax	lb.	1,517,642	64,540
Brass rod, strip, etc.	lb.	1,877,840	506,334
Brucite fines	ton	923	37,085
Butyl acetate	lb.	3,171,676	539,389
Butyl cellulose	lb.	82,066	25,375
Caffeine	lb.	17,263	84,586
Calcium arsenate	lb.	517,418	42,381
Calcium carbide	lb.	19,839,060	957,736
Calcium carbonate (ground chalk, whiting)	lb.	21,905,642	333,658
Calcium chloride	lb.	5,230,683	104,507
Calcium cyanamide	ton	36,559	1,410,506
Calcium sulphate	lb.	1,585,394	22,609
Camphor	lb.	41,955	31,347
Carbon bisulphide	lb.	3,348,121	166,733
Carbon black	lb.	1,655,278	210,222
Carbon dioxide gas (unpurified)	—	—	27,239
Carbon tetrachloride	lb.	516,004	51,878
Casein	lb.	1,473,455	335,471
Chalk, precipitated	lb.	584,349	33,045
Charcoal	lb.	2,801,897	61,757
Chloride of lime	lb.	2,086,546	80,245
Chlorine, liquid	lb.	44,677,880	1,278,357
Coal:			
Anthracite (except for fuel)	ton	6,306	68,117
Bituminous (except for fuel)	ton	825	11,562
Cobalt acetate	lb.	15,115	14,515
Cobalt sulphate	lb.	82,190	88,825
Coke:			
Petroleum (except for fuel)	ton	123,513	2,089,390
Other (except for fuel)	ton	164,424	2,803,654
Colours:			
Chrome	lb.	2,047,260	801,848
Gaber dry	lb.	2,688,109	1,194,816

CHEMICALS AND ALLIED PRODUCTS

TABLE 6. Alphabetical List of Materials Used in the Industries in the Chemicals and Allied Products Group, 1949 — continued

Item		Quantity	Cost at works
Copper strip, sheet, etc.	lb.	123,349	18,502
Copper carbonate	—	—	—
Copper sulphate	lb.	765,934	134,205
Copra or dried cocoanut kernels	lb.	67,320,420	5,890,500
Cotton linters	lb.	257,589	25,184
Cresol	lb.	666,993	109,045
D. D. T.	—	—	393,747
Dextrine	lb.	7,739,609	657,475
Diatomaceous earth	ton	7,469	324,702
Dibutyl phthalate	lb.	148,604	45,363
Dinitrotoluene	lb.	242,533	26,229
Diphenylamine	—	—	—
Driers:			
Linoleate	lb.	22,103	6,638
Naphthenates	lb.	1,381,321	435,399
Resinates	lb.	29,017	6,408
Other	lb.	499,934	147,061
Dyes and colours, other	—	—	279,840
Dyes, for packaging	—	—	1,682,505
Electrodes	—	—	790,833
Ethyl acetate	lb.	5,294,357	565,729
Ethylene glycol	lb.	24,926,142	5,239,911
Ethylene oxide	lb.	21,236,404	3,536,908
Feldspar	ton	3,161	48,419
Flaxseed, Canadian	bushel	4,591,608	18,995,333
Flour:			
Potato	lb.	515,932	35,829
Soya bean	lb.	577,962	34,285
Tapioca	lb.	614,831	68,226
Wheat	lb.	6,214,033	233,766
Other	lb.	1,283,243	78,601
Fluorspar	ton	32,947	828,241
Foots, olive and cotton seed	lb.	6,449,849	545,371
Formaldehyde	lb.	12,047,994	502,153
Fuller's earth	ton	293	11,633
Glucose	lb.	746,318	65,041
Glue	lb.	1,302,448	352,143
Glycerine:			
Crude	lb.	3,198,736	663,473
Refined	lb.	9,457,098	2,861,379
Graphite	lb.	568,625	89,997
Grease	lb.	4,544,744	339,200
Gun powder	lb.	722,192	330,027
Herbs, roots and vegetable drugs	—	—	652,848
Hides and hide trimmings	ton	18,645	563,613
Hydrogen	cu. ft.	1,159,459	2,920
Hydrogen chloride, anhydrous	lb.	3,067,900	112,564
Hydrogen peroxide	lb.	19,187	4,384
Insect powder	lb.	47,853	2,894
Iodine, crude	lb.	66,297	118,943
Iron, scrap	ton	2,533	58,246
Iron oxide pigments	lb.	4,121,624	294,872
Isopropyl acetate	lb.	546,050	65,508
Javel concentrate or sodium hypochlorite for dilution	—	—	51,294
Kaolin or china clay	lb.	5,242,605	89,281
Lead arsenate	lb.	168,507	29,996
Lead, basic carbonate, white, dry	lb.	2,639,379	492,702
Lead, basic carbonate, white, in oil	lb.	916,724	178,384
Lead, basic sulphate, white	lb.	236,399	34,188
Lead, pig	lb.	11,182,652	1,692,161
Lead, red	lb.	1,130,202	215,491
Lethane	gal.	1,534	8,166
Lime:			
Hydrated	ton	49,460	111,208
Quick	ton	21,307	259,548
Land plaster	ton	664	10,413
Limestone	ton	849,203	1,374,137
Litharge	lb.	2,743,332	482,728
Lithopone	lb.	11,625,803	885,552
Lumber	bd. ft.	996	94,583
Magnesium oxide	ton	743	28,710
Magnesium sulphate (Epsom salts)	lb.	1,589,322	60,825
Meat, ivory nut and other	lb.	338,907	8,740
Menthol	lb.	12,149	95,702
Mercury metal	lb.	435,440	328,918
Mercuric oxide	lb.	17,638	20,691
Methyl chloride	lb.	2,937,466	342,669
Mica, ground	lb.	1,137,583	48,030
Mustard seed	lb.	7,546,332	150,920
Natural gas (for making ammonia nitrate)	cu. ft.	2,790,000	377,270
Nitrocellulose or nitrocotton	lb.	2,704,554	779,761
Ochres, siennas and umbers	lb.	520,636	48,240

TABLE 6. Alphabetical List of Materials Used in the Industries in the Chemicals and Allied Products Group, 1949 - continued

Item	Quantity	Cost at works
	\$	
Oil:		
Castor	gal. 467,059	854,423
Castor, dehydrated	gal. 147,643	436,451
Chinawood (tung)	lb. 6,818,088	1,573,760
Cocoanut	lb. 26,712,020	4,678,460
Cod	lb. 404,603	66,041
Cod liver	lb. 998,053	305,004
Corn	lb. 364	125
Cottonseed	lb. 1,740	587
Essential and perfumes	-	2,252,727
Fish	lb. 4,715,012	568,278
Fish, hydrogenated	lb. 1,106,270	98,126
Linseed	gal. 1,903,994	3,656,460
Linseed, boiled and other	gal. 2,083,330	4,369,592
Polymerol	lb. 1,040,765	305,467
Varnol	lb. 150,030	36,779
Mineral	lb. 854,160	254,692
Mineral, white	lb. 2,721,791	276,406
Neat's foot	lb. 455,488	70,676
Oiticica	lb. 118,695	22,740
Olive	lb. 5,254	2,363
Palm	lb. 2,232,667	354,079
Peanut	lb. 70,418	2,677
Petroleum ink	lb. 11,227,190	237,348
Pine	lb. 251,040	25,270
Seal	-	-
Soya bean	gal. 206,848	280,780
Sperm	lb. 398,067	63,585
Sun flower	-	-
Tall	lb. 2,015,871	130,181
Whale	lb. 151,482	23,442
Other	-	707,160
Paradichlorobenzene	lb. 608,265	67,903
Pentasol	lb. 550,000	79,187
Petrolatum	lb. 961,201	104,427
Petroleum distillates, n.e.s.	gal. 7,121,500	2,024,410
Penicillin	million units	
Phenacetin	182,556	263,491
Phenobarbital	lb. 153,266	160,428
Phenol	lb. 13,716	62,797
Phosphorus, amorphous	lb. 5,793,529	723,971
Phosphorus sesquisulphide	lb. 12,356	5,121
Phosphate rock	lb. 100,963	34,859
Phthalic anhydride	ton 425,405	5,873,573
Pigments, all other, and fillers	lb. 4,795,006	1,060,149
Pitch, coal tar	lb. 9,397,946	1,547,257
Plasticizers, n.e.s.	lb. 1,457,519	40,118
Platinum	lb. 2,324,647	913,447
Polyvinyl acetate	-	134,557
Polyvinyl chloride	lb. 704	319
Potash manure salts	lb. 2,096,618	692,664
Potassium bichromate	ton 3,425	72,132
Potassium carbonate	lb. 94,816	14,514
Potassium chlorate	-	-
Potassium chloride (muriate of potash)	lb. 21,129	2,740
Potassium hydroxide (caustic potash)	ton 89,077	3,845,507
Potassium iodide	lb. 2,088,033	153,105
Potassium magnesium sulphate	lb. 20,779	41,159
Potassium nitrate	lb. 6,820,000	112,852
Potassium perchlorate	lb. 525,500	49,041
Potassium permanganate	lb. 70,828	10,416
Potassium sodium tartrate	-	-
Potassium sulphate	lb. 25,056	6,398
Powders, metallic (bronze, aluminum, etc.)	lb. 14,380,000	347,714
Powders, rouges and other toilet preparations for packaging only	lb. 590,554	290,599
Pyrethrum extract and powder	lb. 104,975	64,681
Pyrites	ton 67,100	24,038
Quartz and quartzite	ton 9,411	431,435
Quebracho extract	lb. 967,682	28,233
Rapeseed	lb. 967,682	118,414
Rare earth chlorides	lb. 45,029,505	2,426,775
Resins and gums, natural	lb. 217,910	92,565
Resins, synthetic	lb. 9,577,497	1,170,073
Rosin	lb. 18,738,156	4,205,291
Rubber:	-	636,708
Chlorinated	lb. 74,371	36,246
Synthetic	lb. 381,096	83,447
Sawdust	lb. 680,160	4,413
Shellac:		
Orange	lb. 655,092	449,547
Bleached	lb. 696,506	498,267
Other	lb. 589,750	258,766
Silica sand	ton 75,428	580,514
Silver bullion	troy oz. 190,706	142,188
Sodium, metallic	lb. 27,915	5,769
Sodium alginate	lb. 350	348
Sodium azide	lb. 6,759	8,150

TABLE 6. Alphabetical List of Materials Used in the Industries in the Chemicals and Allied Products Group, 1949—concluded

Item	Quantity	Cost at work
Sodium bicarbonate	lb. 2,704,935	\$ 79,780
Sodium bichromate	lb. 54,825	5,917
Sodium carbonate (soda ash)	lb. 66,991,911	1,161,815
Sodium chlorate	lb. 5,811,117	453,143
Sodium chloride (brine)	lb. 615,726,000	307,863
Sodium chloride (common salt)	lb. 262,606,336	1,211,563
Sodium fluoride	lb. 334,735	36,609
Sodium hydroxide (caustic soda)	lb. 58,797,787	1,835,797
Sodium nitrate (Chile saltpetre)	lb. 29,243,354	836,967
Sodium peroxide	lb. 27,609	5,439
Sodium phosphate (di)	lb. 1,102,709	93,729
Sodium phosphate (tetra)	lb. 5,764,872	521,530
Sodium phosphate (tri)	lb. 7,824,027	387,150
Sodium salicylate	lb. 15,981	9,852
Sodium silicate (water glass)	lb. 43,220,986	527,678
Sodium sulphate	lb. 103,537	8,124
Sodium sulphide	lb. 203,988	10,745
Sodium metasilicate	lb. 1,053,632	45,405
Solveots, n.e.s.	gal. 2,026,915	761,839
Soy beans	lb. 257,936,070	11,460,680
Starch:		
Corn	lb. 2,655,603	184,192
Other	lb. 1,035,040	76,766
Strontium carbonate	lb. 990	327
Strontium nitrate	lb. 509,781	52,782
Strontium oxalate	lb. 311	182
Strychnine	lb. 1,528	23,860
Sugar	lb. 4,076,484	346,420
Sulphur drugs	—	479,107
Sulphur (brimstone)	ton 73,704	1,896,907
Sulphur dioxide	—	50,782
Sunflower seed	lb. 28,726,183	1,655,809
Superphosphate:		
18%	ton 27,691	599,069
20%	ton 277,195	5,763,270
45%	ton 3,840	112,626
Talc	lb. 22,296,938	375,695
Tallow, grease and other soap stock	lb. 107,064,870	9,322,071
Tankage	ton 1,259	35,011
Tar:		
Coal, crude	gal. 31,968,747	4,029,215
Water gas, crude	gal. 579,097	69,317
Tetryl	lb. 18,600	16,346
Titanium dioxide pigments, extended	lb. 21,664,105	1,958,767
Titanium dioxide,	lb. 12,035,579	2,629,818
Toluol	lb. 10,154,025	452,049
Trichlorethylene	lb. 75,613	8,508
Trinitrotoluol (T.N.T.)	lb. 441,500	57,471
Turpentine	gal. 309,664	206,840
Urea crystals	lb. 2,210,740	132,979
Varnishes	gal. 687,054	1,311,355
Vitamins (A,B,C and D)	—	1,151,625
Wax:		
Beeswax	lb. 266,415	145,627
Candelilla	lb. 114,556	75,754
Carnauba	lb. 1,601,487	1,402,205
Ouricury	lb. 68,493	51,957
Paraffin	lb. 9,335,968	701,865
Synthetic	lb. 40,256	21,059
Other	lb. 8,113,489	680,234
Wood:		
Blocks and splints	—	786,207
Flour	lb. 1,873,943	44,379
Hardwood for distillation	cord 27,471	324,082
Pulp	lb. 12,744,304	901,678
Xylool	gal. 428,830	211,717
Yarns	lb. 916,136	457,337
Zinc chloride	lb. 19,695	1,571
Zinc chromate	lb. 203,455	55,973
Zinc dross	lb. 148,732	8,886
Zinc oxide:		
Pure	lb. 4,508,762	671,979
Leaded	lb. 2,141,333	334,432
Zinc spelter	lb. 11,843,716	1,242,196
Zinc stearate	lb. 20,024	9,496
Zinc sulphate	lb. 231,252	15,385
Containers and packing material	—	34,059,808
All other materials	—	46,258,020
Total		280,008,945

TABLE 7. Alphabetical List of Products Made in the Industries in the Chemicals and Allied Products Group, 1949

Note. This is simply a list of the principal products made by concerns in the Chemicals and Allied Products group of industries with corresponding output figures where it is possible to publish them. It is not intended to be a complete list of chemicals made in Canada as numerous chemicals are made in other industries, similarly the production figures may not represent totals for Canada as there may have been a production in other industries.

Item	Quantity	Selling value at works
Acetaldehyde		\$
Acetic anhydride		•
Acetone		•
Acetylene black		•
Acetylene:		
In cylinders	cu. ft.	120,831,500
Other		3,420,827
Acid:		
Acetic, glacial, 99%		•
Cresylic		•
Fatty, other	lb.	4,539,617
Hydrochloric (muriatic):		
Commercial		•
C.P.		•
Hydrofluosilicic		•
Monochloro acetic		•
Nitric:		
Commercial		•
C.P.		•
Oleic		•
Phosphoric		•
Stearic		•
Sulphuric:		
Commercial (for sale)	lb.	1,309,835,622
C.P.		5,610,742
Aluminum chloride		•
Aluminum fluoride		•
Aluminum stearate		•
Aluminum sulphate		•
Amonia:		
Anhydrous	lb.	129,403,051
Aqua	lb.	1,521,847
Ammonia powder	lb.	2,045,714
Ammonium chloride		•
Ammonium hydroxide:		
Commercial		•
C.P.		•
Ammonium nitrate:		
Regular		•
Fertilizer compound		•
Ammonium phosphate		•
Ammonium sulphate		•
Ammonium sulphate (milled, screened and bagged only)	ton	448
Amyl acetate	—	—
Anesthetics	—	140,323
Aniline oil		
Anti-freeze preparations	gal.	2,685,182
Automobile chemicals (brake fluid, tar remover, etc.)	—	7,673,698
		1,325,354
Biological preparations	—	—
Boiler compounds	—	2,155,563
Bone meal:		
Raw	lb.	801,116
Steamed	lb.	2,303,584
Brewers' grain:		
Dry		•
Yeast		•
Butyl acetate		•
Butyl alcohol		•
Butyraldehyde		•
Caffeine, anhydrous		•
Calcium acetate, grey 80%		•
Calcium acid phosphate		•
Calcium arsenate		•
Calcium carbide		•
Calcium chloride		•
Calcium cyanamide		•
Calcium cyanide		•
Calcium naphthenate		•
Calcium stearate		•
Carbon bisulphide		•
Carbon dioxide (in cylinders and solid)	lb.	27,619,739
Cellulose film		1,873,721

CHEMICALS AND ALLIED PRODUCTS

TABLE 7. Alphabetical List of Products Made in the Industries in the Chemicals and Allied Products Group, 1949—continued

Item		Quantity	Selling value at works
Cement:			\$
Linoleum.....	gal.	344,450	220,930
Rubber.....	gal.	142,382	141,632
Other	lb.	4,335,726	757,770
Cerium.....			*
Charcoal.....	ton	12,805	562,787
Chloride of lime.....	lb.	2,973,589	151,532
Chlorine:			
Gas	lb.	188,776	3,997
Liquid (for sale)	lb.	133,919,852	2,590,848
Chloroform			*
Cleaners:			
Drain pipe, toilet flush	lb.	3,112,873	360,559
Hand	lb.	3,274,019	437,062
Glass	lb.	—	197,347
Cleaning and scouring powder and paste.....	lb.	24,241,067	2,361,181
Cleaning preparations, other	—	—	1,300,485
Cobalt naphthenate			*
Coke, pitch.....			*
Colours:			
Butter, cheese, etc.	—	—	74,148
Dry	lb.	4,261,705	1,819,443
In oils and japans	lb.	256,250	150,249
Copper naphthenate			*
Cresol			*
Cryolite, recovered			*
D. D. T.	—	—	964,806
Dental chemicals and supplies	—	—	119,956
Dentrifrices, liquid, powder and paste	—	—	4,830,023
Detergents, synthetic:			
Synthetic organic detergents (not in combination with soap or other detergents)	lb.	23,972,789	4,977,004
Synthetic organic detergents (in combination with alkaline detergents)	lb.	10,287,144	2,482,866
Alkaline detergents	lb.	2,963,337	324,510
Dextrines.....			*
Dibutyl phthalate	lb.	326,879	92,818
Dichloreoethyl ether			*
Dichlorophenol			*
Dicyandiamide			*
Disinfectants	—	—	750,072
Deodorants (personal)	—	—	882,536
Dressings and finishes, leather, except polish	—	—	903,398
Dyes:			
Blended and packaged only	—	—	2,583,602
Leather	—	—	45,935
Embalming fluid	—	—	182,701
Enamels, ready mixed, oil and synthetic type	gal.	5,410,777	22,201,116
Ethyl acetate			*
Ethylene dichloride			*
Explosives and ammunition			*
Ferric chloride			*
Ferrophosphorus			*
Fertilizers, mixed	ton	656,668	24,535,054
Fireworks and pyrotechnics	—	—	380,895
Flavouring extracts	—	—	688,766
Flaxseed, ground.....	ton	104	24,121
Flour bleaching compound			*
Glue:			
Bone and hide	lb.	7,026,432	1,825,268
Casein	lb.	505,011	140,441
Fish	lb.	890,445	372,189
Flexible	lb.	1,402,606	313,728
Soya bean	lb.	7,329,736	93,776
Synthetic resin	lb.	7,329,736	770,817
Vegetable, dry	lb.	2,370,582	239,556
Vegetable, liquid	lb.	17,956,294	1,483,286
Other	lb.	228,811	45,087
Glycerine:			
Crude	lb.	1,875,651	354,886
Refined	lb.	11,794,054	3,476,657
Glycols:			
Ethylene			*
Diethylene			*
Triethylene			*
Grease	lb.	2,202,880	125,990
Guanidine nitrate			*

TABLE 7. Alphabetical List of Products Made in the Industries in the Chemicals and Allied Products Group, 1949—continued

Item		Quantity	Selling value at works
Hydrogen	cu. ft.	88,790,070	\$ 318,132
Hydrogen chloride, anhydrous			•
Hydrogen peroxide, liquid			•
Industrial oils and greases, including lubricating oils	—	—	404,291
Inks:			
Newspaper	lb.	11,622,985	1,078,480
Letterpress	lb.	4,493,923	3,110,093
Lithographing	lb.	4,236,346	3,050,106
Stamping	lb.	26,650	41,083
Other printing	lb.	1,214,272	348,285
Writing:			
Liquid	lb.	878,057	309,704
Powder and pellets	lb.	7,602	7,103
Insecticides:			
Agricultural dust and spray	—	—	1,797,295
Fly spray	—	—	111,463
Gopher poison	—	—	53,188
Moth repellent	—	—	519,246
Rat and mouse poison	—	—	101,413
Other household	—	—	213,064
Livestock spray and powder	—	—	416,632
Javel water:			
Under 12%	—	—	2,982,746
12% and over	—	—	1,471,056
Lacquers, cellulose:			
Clear	gal.	1,132,066	2,754,604
Pigmented	gal.	647,864	2,616,489
Lead acetate			•
Lead arsenate			•
Lead naphthenate			•
Lead oxide:			
Red			•
Litharge			•
Lead, white:			
Dry			•
Ground in oil			•
Lecithin			•
Lighter fluid			•
Lime, unhydrated	gal.	507,995	127,693
Lime-sulphur solution	lb.	753,961	104,417
Lye			56,997
Magnesium stearate			•
Manganese naphthenate			•
Matches:			
In books	No. of books	372,846,885	1,238,367
Other	No. of cases	676,802	2,840,295
Medicinals:			
Standard	—	—	6,762,066
Specialties, registered as patent medicines	—	—	13,083,343
Specialties, with ingredients declared	—	—	24,045,383
Metal soap pads, impregnated			•
Methyl hydrate:			
Refined			•
Crude			•
Mucilage			102,902
Muriate of potash (fertilizer):			
Milled, screened and bagged only	ton	2,084	125,455
Naphthalene			•
Nickel salts			•
Nitrogen			•
Nitrous oxide			•
Oil, sulphonated:			
Castor	lb.	1,159,100	200,239
Coconut	lb.	91,527	17,500
Cod	lb.	731,710	99,684
Neat's Foot	lb.	401,296	76,160
Other blends	lb.	4,738,395	697,651

TABLE 7. Alphabetical List of Products Made in the Industries in the Chemicals and Allied Products Group, 1949—continued

Item		Quantity	Selling value at works
			\$
Oil:			
Castor, dehydrated	gal.	107,678	286,543
Cocoanut			•
Core			•
Creosote	gal.	12,556,889	2,998,378
Lard	lb.	1,326,767	202,127
Linseed:			
Boiled	gal.	1,463,475	3,103,897
Special	gal.	3,119,037	6,037,588
Linseed, raw (sold as such)	gal.	5,847,077	10,724,006
Mustard seed			•
Neat's foot, cold pressed			•
Rapeseed			•
Soya bean	ton	22,101	7,062,269
Sperm			•
Stand, blown and enamel	gal.	94,890	114,909
Sun flower			•
Other	—	—	327,044
Oilcake and oil cake meal:			
Cocoanut			•
Linseed	ton	78,442	5,236,506
Mustard seed			•
Rapeseed			•
Soya bean	ton	99,795	6,975,786
Sun flower			•
Oxygen:			
In cylinders (for delivery by pipeline)	cu. ft.	657,134,873	5,567,476
Liquid			•
Paint:			
Cement paints	—	—	43,471
Paste paints (not including water-paste paints)	lb.	5,158,649	1,032,436
Water-thinned paints:			
Resin emulsion paints, paste and semi-paste form:			
Interior	Imp. gal.	801,172	2,301,368
Exterior	Imp. gal.	7,923	22,932
Cold water paints:			
Interior, casein and protein bound:			
Dry and semi-paste form	Imp. gal.	39,738	74,078
Dry powder form	lb.	3,695,479	429,659
Glue bound	lb.	665,258	45,617
Exterior:			
Casein and protein bound	lb.	133,132	19,611
Lime or cement bound	lb.	1,080,017	125,189
Texture-type water paints	lb.	2,055,440	164,977
Calcimines:			
Hot water	lb.	2,428,660	127,127
Cold water	lb.	1,057,960	78,551
Ready mixed paints	gal.	9,541,205	33,558,799
Paint and varnish remover	gal.	121,566	335,359
Paraldehyde			•
Parathion			•
Paste:			
Dry powder	—	—	412,302
Liquid	lb.	1,608,686	84,822
Penicillin			
Penicillin preparations	Billion units	1,396	1,570,810
Pentasol acetate		—	3,635,645
Perchlorethylene			•
Phenol			•
Phenothiazine			•
Phosphorus:			
Amorphous			•
Yellow			•
Phosphorus sequisulphide			•
Phtalic anhydride			•
Patching material:			
For walls	lb.	2,328,838	172,091
For floors	lb.	376,378	65,446
Pitch, coal tar	ton	92,291	2,489,125
Polish:			
Automobile (including wax)	—	—	364,409
Brass	—	—	61,190
Furniture	—	—	373,872
Shoe and shoe dressing	—	—	1,020,394
Silver	—	—	79,793
Stove	—	—	66,833
Other	—	—	129,334
Polyvinyl alcohol			•
Potassium chlorate			•

TABLE 7. Alphabetical List of Products Made in the Industries in the Chemicals and Allied Products Group, 1949—continued

Item	Quantity	Selling value at works
Powder, dessert	lb.	686,965
Propane gas	lb.	11,480,644
Putty		824,919
Railway signal fuses and signal boxes		\$
Rennet extract		•
Resins, synthetic:		•
Alkyd		•
Casein		•
Pheno-formaldehyde		•
Polystyrene		•
Urea-formaldehyde		•
Vinyl acetate		•
Vinyl chloride		•
Rollers, printers'	—	504,194
Roofing and paving specialties	—	339,860
Rust preventatives	—	343,677
Sex hormones	—	1,529,312
Size, rosins	lb.	13,920,320
Soap:		860,982
Castile:		
Boiled	lb.	500,244
Cold pressed	lb.	905,265
Chips and flakes:		
Household packages	lb.	17,736,647
Bulk	lb.	14,145,399
Laundry, bar:		
Household:		
White	lb.	12,445,025
Yellow	lb.	19,289,669
Liquid	lb.	9,626,245
Polishing and scouring	lb.	569,829
Powder:		
Household packages	lb.	84,630,257
Bulk	lb.	7,370,348
Shaving cream:		
Lather	lb.	899,573
Brushless	lb.	228,842
Other	lb.	298,637
Soft, paste and jelly	lb.	1,792,971
Textile and mill	lb.	2,548,642
Toilet, bar	lb.	36,779,678
Other, hard	lb.	1,530,723
Other	lb.	1,910,266
Sodium acid pyrophosphate		•
Sodium arsenate		•
Sodium arsenite		•
Sodium azide		•
Sodium benzoate		•
Sodium carbonate:		•
Soda ash	lb.	4,764,215
Sal soda		119,042
Sodium chlorate		•
Sodium cyanide		•
Sodium fluoride		•
Sodium hydrosulphide		•
Sodium hydroxide (caustic soda)		•
Sodium hypochlorite		•
Sodium nitrate fertilizer (milled, screened and bagged only)	ton	23
Sodium (di) phosphate		•
Sodium (mono) phosphate		•
Sodium (tetra) phosphate, anhydrous		•
Sodium (tri) phosphate		•
Sodium metabisulphite		•
Sodium silicate		•
Sodium stearate		•
Sodium sulphate (saltcake)		•
Sodium sulphamethazine		•
Sodium sulphite, anhydrous		•
Sodium thiosulphite		•
Sodium tripolyphosphate		•
Soldering flux	—	101,451
Soya bean flour	ton	202
Sponges, cellulose		23,004
Stains (oil spirit varnish etc.)	gal.	471,524
Starches, blended		1,170,837
Stearine		•
Streptomycin		•
Streptomycin preparations	—	283,645
Sulphur dioxide, liquid		•

TABLE 7. Alphabetical List of Products Made in the Industries in the Chemicals and Allied Products Group, 1949—concluded

Item		Quantity	Selling value at works
Superphosphate fertilizer:			\$
Actually made.....	ton	10,869	•
Milled, screened and bagged only.....	ton	318,715	
Sweeping compounds.....	—	—	343,937
Tallow.....	ton	2,710	• 138,825
Tankage.....	ton	2,710	• 138,825
Tanners' bate.....	gal.	3,542,989	• 538,458
Tar, refined.....	gal.	—	1,583,150
Textile and leather finishes.....	—	—	1,996,794
Thinner, for lacquers, paints and enamels.....	gal.	1,574,315	20,262,523
Toilet preparations.....	—	—	•
Trichlorethylene, crude.....	—	—	•
Turpentine.....	—	—	•
Vanillin.....	gal.	3,612,794	• 7,860,166
Varnishes (Japans, shellac, etc.).....	gal.	—	• 767,960
Veterinary medicines.....	—	—	
Vinyl acetate.....	—	—	• 7,193,295
Vitamins.....	—	—	
Washing blue.....	lb.	—	•
Washing compounds, other.....	lb.	—	272,826
Wax, floor:			
Paste.....	lb.	7,553,753	2,472,823
Liquid.....	gal.	600,572	1,341,047
Self polishing.....	gal.	1,265,235	3,566,736
Wax, sealing.....	—	—	•
Wax compounds, other.....	—	—	260,568
Weed killer.....	—	—	• 1,425,199
Welding compounds.....	—	—	•
Wood preservative.....	—	—	317,557
Zinc chloride.....	—	—	•
Zinc naphthenate.....	—	—	•
Zinc oxide.....	—	—	•
Zinc stearate.....	—	—	•
Zinc, white, in oil.....	—	—	•
All other products.....	—	—	53,160,040
Products reported by only one or two firms in this group (marked • above).....	—	—	155,994,789
Total.....	—	—	587,398,215

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