

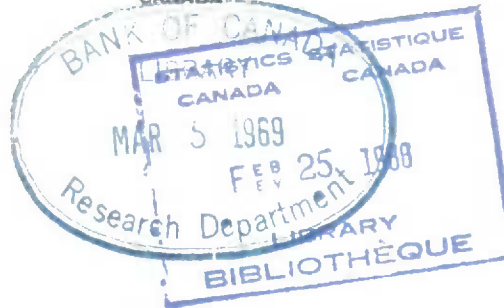
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CANADA



MANUFACTURERS OF INDUSTRIAL CHEMICALS 1966

ANNUAL CENSUS OF MANUFACTURES

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MANUFACTURERS OF INDUSTRIAL CHEMICALS

(S.I.C. 378)

1966

For statistical purposes the industry titled Manufacturers of Industrial Chemicals in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing basic industrial inorganic chemicals such as acids, alkalis, salts, compressed gases and other inorganic compounds, or in manufacturing industrial organic chemicals by chemical processes. This industry includes establishments primarily engaged in manufacturing dry colours, pigments, white lead, lead oxides, iron oxides and titanium oxide and in manufacturing dyes. Included also are establishments primarily engaged in manufacturing synthetic rubber and those primarily engaged in manufacturing compressed organic gases.

Establishments primarily engaged in manufacturing coke are classified in the Iron and Steel Mills industry (S.I.C. 291), or in the Other Petroleum and Coal Products industry (S.I.C. 369); petroleum refineries are classified in the Petroleum Refineries industry (S.I.C. 365); establishments primarily engaged in manufacturing plastics materials are classified in the Manufacturers of Plastics and Synthetic Resins industry (S.I.C. 373); establishments primarily engaged in manufacturing mixed fertilizers are classified in the Manufacturers of Mixed fertilizers industry (S.I.C. 372).

Separate figures for the production of chemicals in this industry are not published as many of the individual items are made by only one or two firms. However, figures for the several items which are available for publication, such as ammonium sulphate, pigments and colours, synthetic rubber, acetylene and oxygen, sulphuric acid, chlorine and caustic soda are shown in Tables 14 to 22 inclusive.

Value of shipments and other revenue (manufacturing and non-manufacturing) of this industry totalled \$890.4 millions, an increase of \$97.4 millions over 1965. This amount included shipments of industrial chemicals valued at \$654.0 millions, shipments of other products (secondary products) valued at \$116.0 millions and other revenue of \$120.4 millions.

This industry's shipments of industrial chemicals represented 85.0 per cent of its manufacturing revenue. Secondary products shipped in 1966 included anti-freeze, feed supplements, acrylic fibres, pest control products, glycerines, synthetic resins, mixed fertilizers, etc.

The cost of materials and supplies, fuel and electricity etc. (inputs) used in the production of goods of own manufacture increased by \$43.6 millions. Cost of inputs in 1966 represented 49.2 per cent of the value of shipments of own manufacture (outputs), compared to 48.4 per cent in 1945.

NOTE

The detailed "Concepts and Definitions" notes, usually carried each year, have been omitted from this 1966 report for reasons of economy. Reference to these notes may be had by consulting any 1965 report in this series. Failing this, a copy may be obtained free of charge upon application to the Manufacturing and Primary Industries Division of the Bureau.

SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- P preliminary figures.
- † revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. PRINCIPAL STATISTICS, 1961-66

Year and province	Estab-lish-ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec-tricity	Cost of materials and supplies	Value of shipments of goods of own manu-facture	Value added	Working owners and partners		Employees		Value added
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
No.		'000			\$'000				\$'000		\$'000		
<u>1961</u>													
Totals	125	10,791	23,485	55,798	42,001	181,624	478,690	260,137	x	x	16,748	91,686	270,688
<u>1962</u>													
Totals	126	10,595	23,069	57,382	42,756	190,967	517,199	280,908	x	x	16,508	94,384	293,173
<u>1963</u>													
Totals	129	11,402	24,885	62,731	46,115	221,067	553,762	290,194	-	-	17,587	102,935	308,831
<u>1964</u>													
Totals	132	11,591	25,408	66,074	49,075	247,626	617,570	325,953	-	-	18,045	109,190	344,057
<u>1965</u>													
Newfoundland	1												
Prince Edward Island	-												
Nova Scotia	4	99	198	520	786	1,379	5,762	3,604	-	-	206	1,133	4,713
New Brunswick	5												
Quebec	31	2,847	6,127	16,086	10,057	55,750	131,026	65,287	-	-	4,180	25,158	68,789
Ontario	58	6,925	15,090	41,859	35,466	173,049	423,849	217,139	-	-	11,106	71,733	230,341
Manitoba	3	35	76	161	66	718	1,962	1,175	-	-	113	546	1,575
Saskatchewan	4	80	170	428	308	4,123	4,665	974	-	-	128	733	1,559
Alberta	12	907	1,991	5,455	3,901	21,604	58,557	36,508	-	-	1,507	9,214	37,800
British Columbia	16	1,085	2,222	6,124	3,956	24,415	59,617	33,518	-	-	1,659	9,741	35,209
Yukon and Northwest Territories ...	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals	134	11,978	25,873	70,634	54,539	281,040	685,437	358,205	-	-	18,899	118,259	379,986
<u>1966</u>													
Newfoundland	1	x	x	x	x	x	x	x	-	-	x	x	x
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia	4	x	x	x	x	x	x	x	-	-	x	x	x
New Brunswick	6	x	x	x	x	x	x	x	-	-	x	x	x
Quebec	30	2,894	6,143	17,339	11,359	58,924	135,816	67,481	-	-	4,184	26,925	71,441
Ontario	60	7,295	16,071	47,641	41,081	191,486	478,401	243,958	-	-	11,705	81,840	259,263
Manitoba	3	35	68	155	102	735	2,355	1,521	-	-	97	543	2,150
Saskatchewan	4	115	249	676	367	7,328	9,230	2,102	-	-	158	1,017	2,338
Alberta	12	1,060	2,378	6,501	4,258	26,173	72,907	44,467	-	-	1,630	10,470	46,260
British Columbia	17	1,036	2,168	6,264	5,108	28,926	63,735	28,310	-	-	1,563	10,028	29,484
Yukon and Northwest Territories ...	1	x	x	x	x	x	x	x	-	-	x	x	x
Totals	138	12,573	27,368	79,276	63,296	315,861	770,021	392,190	-	-	19,586	132,153	416,483

TABLE 7. PRINCIPAL STATISTICS CLASSIFIED BY SIZE GROUP BASED ON VALUE OF SHIPMENTS OF GOODS OF MANUFACTURES, 1965 AND 1966

Size group	Estab- lish- ments	Manufacturing activity							Total activity					
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added	
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages		
No.		'000			\$'000			\$'000		\$'000				
1965														
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-		
\$ 10,000 to \$ 24,999	5	8	17	32	15	78	274	182	-	-	18	73	194	
25,000 " 49,999														
50,000 " 99,999														
100,000 " 199,999		13	55	116	287	66	798	1,901	1,060	-	-	167	912	3,240
200,000 " 499,999		21	170	367	881	216	3,216	6,671	3,127	-	-	345	1,823	5,936
500,000 " 999,999	21	265	551	1,348	554	5,099	15,260	9,609	-	-	624	3,228	13,285	
1,000,000 " 4,999,999	44	1,682	3,714	9,579	8,018	48,188	111,985	58,015	-	-	2,631	15,704	64,047	
5,000,000 and over	30	9,798	21,110	58,507	45,671	223,661	549,346	286,212	-	-	14,563	92,783	291,226	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	551	3,737	2,057
Totals	134	11,978	25,873	70,634	54,539	281,040	685,437	358,205	-	-	18,899	118,259	379,986	
1966														
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-		
\$ 10,000 to \$ 24,999	3	3	6	11	2	38	64	23	-	-	3	11	23	
25,000 " 49,999														
50,000 " 99,999		1	5	12	23	9	32	216	176	-	-	13	70	240
100,000 " 199,999		9	43	91	222	37	656	1,416	716	-	-	126	705	2,638
200,000 " 499,999		21	176	368	901	267	3,367	7,841	4,282	-	-	315	1,733	7,321
500,000 " 999,999	17	202	420	984	494	4,032	11,425	6,956	-	-	482	2,557	9,908	
1,000,000 " 4,999,999	48	1,674	3,693	9,613	8,034	52,663	115,672	56,160	-	-	2,625	16,351	62,925	
5,000,000 and over	35	10,470	22,777	67,522	54,453	255,074	633,386	323,877	-	-	15,422	106,328	331,027	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	600	4,398	2,401
Totals	138	12,573	27,368	79,376	63,296	313,861	770,021	392,190	-	-	19,586	132,153	416,423	

TABLE 8. PRINCIPAL STATISTICS CLASSIFIED BY SIZE GROUP BASED ON MANUFACTURING VALUE ADDED, 1965 AND 1966

Size group	Estab- lish- ments	Manufacturing activity							Total activity					
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added	
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages		
No.		'000			\$'000			\$'000		\$'000				
1965														
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-		
\$ 10,000 to \$ 24,999	7	47	102	276	27	614	952	171	-	-	91	532	1,543	
25,000 " 49,999														
50,000 " 99,999		13	60	124	277	67	1,109	2,090	919	-	-	163	845	2,961
100,000 " 199,999		16	179	389	877	366	5,690	19,819	2,149	-	-	276	1,386	2,714
200,000 " 499,999		25	283	612	1,384	613	11,284	39,813	8,596	-	-	622	3,250	11,950
500,000 " 999,999	17	386	855	2,082	848	9,936	23,170	12,065	-	-	680	3,993	13,984	
1,000,000 " 4,999,999	37	2,195	5,205	14,104	11,878	59,214	155,742	83,981	-	-	3,630	22,194	89,955	
5,000,000 and over	19	8,628	18,587	51,635	38,740	193,193	475,351	250,324	-	-	12,886	82,322	254,822	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	551	3,737	2,057
Totals	134	11,978	25,873	70,634	54,539	281,040	685,437	358,205	-	-	18,899	118,259	379,986	
1966														
Under \$10,000	-	-	-	-	-	-	-	-	-	-	-	-		
\$ 10,000 to \$ 24,999	4	30	61	117	41	773	836	10	-	-	50	264	298	
25,000 " 49,999														
50,000 " 99,999		11	57	118	294	69	974	1,904	863	-	-	155	875	3,759
100,000 " 199,999		13	105	234	591	193	4,573	6,760	2,072	-	-	167	982	2,326
200,000 " 499,999		27	358	762	1,800	876	11,551	21,201	9,200	-	-	594	3,227	11,832
500,000 " 999,999	24	649	1,428	3,693	3,339	23,071	43,856	18,177	-	-	1,176	7,252	21,543	
1,000,000 " 4,999,999	18	2,553	5,514	15,558	15,186	69,977	185,167	101,669	-	-	3,801	24,550	107,944	
5,000,000 and over	18	8,818	19,245	57,210	43,589	204,904	510,233	260,154	-	-	13,040	90,594	266,338	
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	600	4,398	2,401
Totals	138	12,573	27,368	79,376	63,296	313,861	770,021	392,190	-	-	19,586	132,153	416,423	

TABLE 4. PRINCIPAL STATISTICS CLASSIFIED BY SIZE GROUP BASED ON TOTAL VALUE ADDED, 1965 AND 1966

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.		'000							'000		'000		
1965													
Under \$10,000													
\$ 10,000 to \$ 24,999	6	27	65	182	19	372	674	144	-	-	42	256	142
25,000 "													
50,000 "	9	39	82	181	54	892	1,604	674	-	-	66	331	697
100,000 "	12	128	282	592	166	4,031	5,794	1,531	-	-	210	1,009	1,661
200,000 "	23	270	582	1,346	687	11,801	18,374	6,517	-	-	480	2,620	8,370
500,000 "	25	440	970	2,328	933	10,811	25,913	13,840	-	-	869	4,910	18,644
1,000,000 "	39	2,390	5,159	14,033	13,763	59,631	153,980	81,920	-	-	3,627	22,198	88,277
5,000,000 and over	20	8,684	18,734	51,972	38,917	193,502	479,097	253,581	-	-	13,054	83,199	260,136
Head offices, sales offices and auxiliary units	..	..	..	..	..	..	..	..	..	..	551	3,737	2,057
Totals	134	11,978	25,873	70,634	54,539	281,040	685,437	358,205	-	-	18,899	118,259	379,986
1966													
Under \$10,000													
\$ 10,000 to \$ 24,999	4	10	21	46	6	200	197	(9)	-	-	14	80	(11)
25,000 "													
50,000 "	8	27	57	147	81	694	1,319	566	-	-	45	245	634
100,000 "	13	112	246	598	187	4,948	6,865	1,814	-	-	170	995	2,080
200,000 "	23	316	670	1,591	733	10,767	17,800	6,726	-	-	460	2,481	7,975
500,000 "	28	588	1,311	3,405	3,288	22,128	42,317	17,581	-	-	1,096	6,769	22,108
1,000,000 "	41	2,461	5,282	14,843	13,283	69,788	173,596	92,184	-	-	3,729	23,880	98,458
5,000,000 and over	21	9,059	19,779	58,646	45,717	207,335	527,927	273,329	-	-	13,472	93,306	282,839
Head offices, sales offices and auxiliary units	..	..	..	..	..	..	..	..	..	..	600	4,398	2,401
Totals	138	12,573	27,368	79,276	63,296	315,861	770,021	392,190	-	-	19,586	132,153	416,483

TABLE 5. PRINCIPAL STATISTICS CLASSIFIED BY SIZE GROUP BASED ON TOTAL EMPLOYED, 1965 AND 1966

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.		'000							'000		'000		
1965													
Under 5 employed	8	13	29	56	20	780	1,378	575	-	-	23	111	589
5-14 "	25	125	276	614	817	4,407	10,952	5,819	-	-	226	1,219	6,686
15-49 "	43	704	1,530	3,771	3,143	22,281	47,061	21,842	-	-	1,261	7,058	28,787
50-99 "	24	988	2,153	5,759	5,098	38,194	87,017	43,699	-	-	1,606	9,872	47,101
100-199 "	16	1,438	3,290	9,196	11,679	40,181	103,557	52,857	-	-	2,208	14,036	58,215
200-499 "	10	2,034	4,309	11,260	6,081	46,377	117,768	66,732	-	-	2,936	17,247	67,414
500 employed and over	8	6,776	14,285	39,978	27,702	128,819	317,704	166,691	-	-	10,088	64,979	169,137
Head offices, sales offices and auxiliary units	..	..	..	..	..	..	..	..	..	..	551	3,737	2,057
Totals	134	11,978	25,873	70,634	54,539	281,040	685,437	358,205	-	-	18,899	118,259	379,986
1966													
Under 5 employed	8	12	26	59	13	574	1,045	472	-	-	18	95	502
5-14 "	27	154	332	800	899	5,734	13,459	6,988	-	-	251	1,422	7,739
15-49 "	42	676	1,512	3,909	4,403	27,510	59,040	27,197	-	-	1,204	7,381	32,173
50-99 "	25	1,065	2,297	6,145	5,060	30,980	69,411	34,247	-	-	1,672	10,364	39,370
100-199 "	16	1,350	2,975	8,675	8,688	40,758	110,137	60,898	-	-	2,128	14,320	65,486
200-499 "	17	2,424	5,339	14,981	11,434	72,862	169,626	89,231	-	-	3,425	22,175	91,822
500 employed and over	8	6,892	14,887	44,707	32,799	137,441	347,304	173,158	-	-	10,288	71,997	176,992
Head offices, sales offices and auxiliary units	..	..	..	..	..	..	..	..	..	..	600	4,398	2,401
Totals	138	12,573	27,368	79,276	63,296	315,861	770,021	392,190	-	-	19,586	132,153	416,483

TABLE 6. PRINCIPAL STATISTICS CLASSIFIED BY TYPE OF ORGANIZATION, 1965 AND 1966

Type of organization	Establishments	Manufacturing activity						Total activity					
		Production and related workers			Cost of fuel and electricity	Cost of materials and supplies	Value of shipments of goods of own manufacture	Value added	Working owners and partners		Employees		Value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
No.		'000			'000				'000		'000		
1965													
Individual ownerships	-	-	-	-	-	-	-	-	-	-	-	-	
Partnerships	-	-	-	-	-	-	-	-	-	-	-	-	
Incorporated companies	134	11,978	25,873	70,634	54,539	281,040	685,437	358,205	-	-	18,348	114,522	377,929
Co-operatives													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	551	3,737	2,057
Totals	134	11,978	25,873	70,634	54,539	281,040	685,437	358,205	-	-	18,899	118,259	379,986
1966													
Individual ownerships	-	-	-	-	-	-	-	-	-	-	-	-	-
Partnerships	-	-	-	-	-	-	-	-	-	-	-	-	-
Incorporated companies	138	12,571	27,368	79,276	63,296	315,861	770,021	392,190	-	-	18,986	127,755	414,082
Co-operatives													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	600	4,398	2,401
Totals	138	12,573	27,368	79,276	63,296	315,861	770,021	392,190	-	-	19,586	132,153	516,483

TABLE 7. CALCULATION OF OUTPUT, INPUT AND VALUE ADDED, 1965 AND 1966

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1965	1966	1965	1966	1965	1966
\$'000						
Output						
1. Shipments and other revenue	685,437	770,021	107,583	120,397	793,020	890,418
Inventories - Goods of own manufacture:						
Add closing - Goods in process	8,284	7,769	...	...	8,284	7,769
Finished goods	58,013	60,493	...	...	58,013	60,493
Deduct opening - Goods in process	8,664	8,946	...	...	8,664	8,946
Finished goods	49,286	57,991	...	...	49,286	57,991
2. Net inventory change	8,347	1,325	...	...	8,347	1,325
3. Gross output (1 + 2)	693,784	771,346	107,583	120,397	801,367	891,743
Input						
4. Purchases of goods not of own manufacture .....	...	...	80,761	90,760	80,761	90,760
Inventories - Goods not of own manufacture:						
Add opening .....	...	...	7,524	8,421	7,524	8,421
Deduct closing .....	...	...	8,384	8,905	8,384	8,905
5. Cost of goods sold (not of own manufacture) .....	...	...	79,901	90,276	79,901	90,276
6. Materials, supplies, etc.	281,040	315,861	5,902	5,827	286,942	321,688
7. Fuel and electricity	54,539	63,296	...	...	54,539	63,296
8. Gross input (5 + 6 + 7)	335,579	379,157	85,803	96,103	421,382	475,360
Value added (3 - 8)	358,205	392,190	21,780	24,294	379,986	416,483

TABLE 8. EMPLOYMENT AND PAYROLL, 1965 AND 1966

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office		Sales and distribution		Total		Production and related workers		Adminis- trative and office	Sales and distri- bution	Total
	Manufacturing		Other		Male	Female	Male	Female	Male	Female	Manufac- turing	Other			
	Male	Female	Male	Female											
	number										\$'000				
<u>1965</u>															
Newfoundland															
Prince Edward Island															
Nova Scotia	99	-	2	-	60	16	29	-	190	16	520	18	440	155	
New Brunswick															
Quebec	2,842	5	9	-	929	203	161	31	3,941	239	16,086	57	7,680	1,334	
Ontario	6,896	29	176	-	2,630	706	549	120	10,251	855	41,859	1,118	24,319	4,437	
Manitoba	35	-	8	-	26	17	27	-	96	17	161	27	211	147	
Saskatchewan	80	-	-	-	30	7	9	2	119	9	428	-	239	66	
Alberta	894	13	9	-	456	93	39	3	1,398	109	5,455	58	3,471	230	
British Columbia	1,082	3	33	-	371	53	111	6	1,597	62	6,124	123	2,856	640	
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Totals	11,928	50	237	-	4,502	1,095	925	162	17,592	1,307	70,634	1,400	39,216	7,009	
<u>1966</u>															
Newfoundland	x	-	-	-	x	x	x	-	x	x	x	-	x	x	
Prince Edward Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nova Scotia	x	x	-	-	x	x	x	-	x	x	x	-	x	x	
New Brunswick	x	x	-	-	x	x	x	-	x	x	x	-	x	x	
Quebec	2,887	7	22	1	831	184	197	55	3,937	247	17,339	122	7,667	1,797	
Ontario	7,267	28	201	-	2,688	751	622	148	10,778	927	47,641	1,188	27,293	5,718	
Manitoba	35	-	-	-	20	14	27	1	82	15	155	-	200	187	
Saskatchewan	115	-	-	-	26	5	10	2	151	7	676	-	260	82	
Alberta	1,052	8	6	4	422	87	46	5	1,526	104	6,501	56	3,627	285	
British Columbia	1,033	3	-	-	359	51	110	7	1,502	61	6,264	-	3,079	685	
Yukon and Northwest Territories	x	-	-	-	-	-	-	-	x	-	x	-	-	x	
Totals	12,525	48	229	5	4,408	1,114	1,039	218	18,201	1,385	79,276	1,366	42,603	8,908	

TABLE 9. EMPLOYEES IN MANUFACTURING OPERATIONS, 1965 AND 1966

Month	1965		1966	
	Male	Female	Male	Female
	number			
Establishments reporting monthly detail (large establishments only):				
January	11,441	48	12,182	48
February	11,521	46	12,279	46
March	11,582	45	12,391	48
April	11,663	50	12,374	50
May	11,970	48	12,572	48
June	12,091	47	12,775	48
July	11,983	48	12,890	46
August	12,137	46	12,849	46
September	12,010	48	12,465	48
October	12,089	49	12,570	47
November	12,086	48	12,500	48
December	12,085	49	12,467	47
Averages	11,928	50	12,525	48
Establishments reporting annual averages (small establishments only)	-	-	-	-
Average for all establishments	11,928	50	12,525	48

TABLE 10. INVENTORIES, 1966

Province	Manufacturing				Non-manufacturing	Total inventories
	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	
book value \$'000						
<u>Opening</u>						
Newfoundland	x	-	x	x	x	x
Prince Edward Island	-	-	-	-	-	-
Nova Scotia	x	x	x	x	x	x
New Brunswick	x	x	x	x	x	x
Quebec	9,177	1,045	8,912	19,133	1,644	20,777
Ontario	24,920	6,795	26,020	57,734	4,504	62,238
Manitoba	59	2	20	81	216	297
Saskatchewan	402	49	1,391	1,841	270	2,111
Alberta	4,837	938	7,345	13,120	412	13,532
British Columbia	8,117	99	14,264	22,479	966	23,445
Yukon and Northwest Territories	-	-	-	-	-	-
Totals	47,791	8,946	57,991	114,729	8,421	123,150
<u>Closing</u>						
Newfoundland	x	-	x	x	x	x
Prince Edward Island	-	-	-	-	-	-
Nova Scotia	x	x	x	x	x	x
New Brunswick	x	x	x	x	x	x
Quebec	9,958	1,445	10,459	21,862	1,566	23,428
Ontario	32,817	3,078	27,861	63,756	5,552	69,308
Manitoba	66	2	23	92	258	349
Saskatchewan	368	15	1,993	2,375	207	2,583
Alberta	5,666	3,173	7,101	15,940	412	16,352
British Columbia	7,794	20	12,951	20,765	514	21,279
Yukon and Northwest Territories	-	-	-	-	-	-
Totals	56,995	7,769	60,493	125,257	8,905	134,162

TABLE 11. PURCHASED FUEL AND ELECTRICITY USED, 1965 AND 1966

Description	1965		1966	
	Quantity	Cost \$'000	Quantity	Cost \$'000
<u>1. Large establishments reporting commodity detail</u>				
Bituminous coal:				
(a) From Canadian mines	Lon	3,400	53	12,498
(b) Imported	"	1,176,882	10,044	1,280,317
Sub-bituminous coal (from Alberta mines only)	"	-	-	-
Anthracite coal	"	40	1	7,780
Lignite coal	"	-	-	-
Coke	"	9,841	153	21,320
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	1,227,200	434	1,366,871
Fuel oil including kerosene or coal oil	"	48,987,977	3,870	60,716,285
Wood	cord	3	-	-
Gas:				
(a) Liquefied petroleum gases	Imp. gal.	793,464	296	1,934,421
(b) Other manufactured gas	M cu. ft.	12,735,496	3,847	12,358,220
(c) Natural gas	"	22,580,937	5,964	26,121,753
Other fuel	"	...	108	...
Electricity purchased	kwh.	5,030,109,401	27,051	7,011,258,262
Steam purchased	"	...	2,720	...
<u>2. Small establishments not reporting commodity detail</u>				
Estimate for fuel and electricity	-	-	-	2
<u>3. All establishments</u>				
Total fuel and electricity used .....	...	54,539	...	63,298

TABLE 12. MATERIALS AND SUPPLIES - MANUFACTURING ACTIVITY, 1965 AND 1966

Description	1965		1966		
	Quantity	Cost \$'000	Quantity	Cost \$'000	
1. Materials used:					
Acetone	lb.	1,903,864	164	2,686,328	202
Acid:					
Acetic, 99 1/2%	"	2,281,671	190	3,477,121	282
Fatty:					
Oleic	"	1,845,856	391	1,435,618	290
Stearic	"	1,338,864	185	388,945	55
Other fatty acids	"	10,406,094	1,318	9,278,873	1,063
Formic, 85%	"	448,541	60	748,061	99
Hydrochloric (muriatic), 100%	"	11,111,610	414	12,729,464	516
Hydrofluoric	"	7,301,788	1,372	8,874,902	1,243
Nitric, 100%	"	59,899,862	1,060	132,273,025	1,524
Phosphoric	"	105,832,420	8,036	108,606,111	8,768
Sulphuric:					
New acid (as 100%)	ton	142,528	2,552	140,366	2,759
Spent acid (as 100%)	"	44	2	-	-
Alcohol:					
Butyl (including isobutyl and normal)	lb.	3,930,540	525	6,483,258	801
Isopropyl	"	2,688,596	206	2,903,500	201
Methyl	Imp. gal.	2,549,319	709	2,869,165	810
Aluminum chloride	lb.	3,849,018	481	4,002,262	522
Aluminum sulphate (alum)	"	1,769,999	53	2,067,387	59
Ammonia, anhydrous	ton	110,546	5,341	134,332	7,492
Barium carbonate	lb.	1,530,500	88	57,352	4
Barium chloride	"	731,674	50	682,470	49
Benzol	"	199,403,046	6,782	210,772,052	7,472
Betanaphthol	"	292,516	69	350,733	81
Calcium carbonate (whiting and chalk)	"	458,583	16	2,090,429	101
Carbon, activated	"	334,134	96	521,725	164
Carbon disulphide (disulphide)	"	2,636,915	138	3,222,579	169
Carbon tetrachloride	"	23,526,010	1,640	28,205,960	1,978
Chlorine	ton	35,703	2,447	40,742	2,333
Coal, (except for fuel):					
Anthracite	"	109,375	1,941	115,343	1,947
Bituminous	"	41,408	624	57,689	891
Cobalt acetate	lb.	43,134	33	49,940	39
Coke, (except for fuel) other	ton	137,930	2,572	171,695	3,417
Cresol (including cresylic acid, all forms)	lb.	184,781	34	62,977	9
Diatomaceous earth	ton	12,296	753	13,530	814
Electrodes (purchased)	"	..	1,278	..	1,374
Ethanolamine:					
Mono	lb.	1,077,220	304	1,404,810	392
Di	"	344,782	91	337,311	91
Tri	"	177,518	55	141,151	41
Fluorspar	ton	12,827	643	14,028	739
Formaldehyde, 100% solids basis	lb.	2,119,008	216	2,324,421	223
Glycerine (includes mainly crude grade)	"	2,527,478	478	3,096,690	690
Glycols:					
Ethylene	"	858,347	149	604,064	145
Other grades	"	978,167	158	2,580,211	381
Graphite	"	838,881	386	1,185,310	571
Iron and steel scrap (borings, etc.)	ton	6,048	234	5,628	235
Lead	lb.	29,390,075	4,456	41,194,533	6,136
Lead sulphate	"	1,800	-	291,700	7
Limestone	ton	621,643	1,398	634,339	1,470
Lime:					
Hydrated	"	5,382	118	4,865	111
Quick	"	25,303	359	34,045	494
Litharge	lb.	2,701,012	510	3,454,646	607
Mercury	"	158,612	622	302,868	1,274
Muriate of potash (potassium chloride)	ton	8,830	386	13,604	586
Natural gas (as a material in manufacturing; not for fuel)	M cu. ft.	16,796,193	6,091	21,054,563	7,249
Oils:					
Castor	lb.	2,276,310	307	2,265,608	328
Cocoonut	"	3,362,587	624	2,290,471	362
Linseed	Imp. gal.	58,411	77	78,584	56
Tall	lb.	1,195,589	139	1,275,604	155
Other oils	"	3,388,711	364	3,180,355	434
Phenol	"	8,090,617	926	10,047,556	1,123
Petrochemical feed stocks:					
L.P.G.'s (Butane, propane, other)	Imp. gal.	..	6,653	144,681,519	9,116
Other	"	..	40,728	489,201	35,250
Phosphate rock	ton	1,127,758	14,963	1,308,070	19,830
Potassium bichromate	lb.	241,600	47	208,123	41
Potassium hydroxide (as 100% KOH)	"	5,473,766	302	5,289,749	308
Phthalic anhydride	"	7,846,275	915	10,029,711	1,263
Quartz and quartzite	ton	67,724	243	-	-
Silica sand	"	33,518	298	112,110	573
Sodium chloride, dry (common salt)	"	562,737	5,275	639,296	5,768
Sodium chloride, brine (salt content)	"	26,559	221	105,689	1,475
Sodium bichromate	lb.	3,054,903	702	3,804,096	917
Sodium hydroxide (caustic soda as 100% Na OH)	ton	33,597	2,082	43,675	2,737
Sodium nitrate	lb.	827,281	47	1,493,280	79
Sodium prussiate	"	422,189	66	110,436	18
Sodium silicate (water glass) (including metasilicate)	"	2,921,601	78	3,325,049	104
Sulphur (brimstone)	ton	269,060	6,373	343,146	8,726
Tallow	lb.	20,893,569	1,688	23,673,451	1,965
Titanium dioxide	"	77,601	22	242,953	91
Toluene (toluol)	"	46,310,087	1,259	56,682,819	1,561
Urea	"	18,550,606	503	12,381,126	357

TABLE 12. MATERIALS AND SUPPLIES - MANUFACTURING ACTIVITY, 1965 AND 1966 - Concluded

Description	1965		1966	
	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Materials used - Concluded:				
Xylene (xylol)	lb. 351,862	16	468,243	23
Zinc chloride	" 450,977	36	384,420	33
Zinc oxide	" 597,425	98	665,700	106
Steel sheets for making containers	ton 3,812	654	3,572	640
All other materials and components used(1) .....	...	90,849	...	102,673
2. Containers and other packaging materials and supplies used:				
Cans, metal .....	..	..	..	676
Barrels and drums, metal .....	..	..	..	2,193
Paper bags, all kinds .....	..	..	..	5,571
Textile bags, (cotton, hemp, linen, etc.) .....	..	..	..	230
All other .....	..	..	..	4,007
Totals .....	..	11,550	..	12,676
3. Operating, maintenance and repair supplies used (excluding fuel) .....	..	31,757	..	35,112
4. Amount paid out to others for work done on materials owned by establishments .....	..	2,901	..	2,992
Totals .....	..	281,040	..	315,861

(1) No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$110,330 in 1965 and \$163,641 in 1966.

TABLE 13. FACTORY SHIPMENTS OF CHEMICALS, 1965 AND 1966

Description	Value	
	1965	1966
	\$'000	
Acids, including acetic, muriatic, nitric, sulphuric, phosphoric, stearic, etc.	51,118	60,492
Calcium compounds, including carbide, chloride, phosphide, cyanamide, cyanide acid phosphate, grey acetate, arsenate, chloride of lime, etc.	23,238	25,940
Sodium compounds, including hydroxide, phosphate, cyanide, silicate, hypochlorite, bisulphite, saltcake, Glauber's salt, chlorate, acid pyrophosphate, soda ash, sal soda, bisulphate, etc., (pharmaceutical salts included elsewhere)	67,726	72,848
Organic chemicals, including acetic anhydride, butyl acetate, ethyl acetate paraldehyde, glycols, pentasol acetate, vinyl acetate, ethyl alcohol, methyl hydrate, glycerine, phenol, cresol, benzol, etc., (acetic acid and acetylene included elsewhere)	244,144	283,169
Compressed and liquefied gases, etc., including acetylene, carbon dioxide, oxygen, nitrous oxide, liquid sulphur dioxide, liquid chlorine, anhydrous and aqua ammonia, liquefied petroleum gases, etc.	112,207	140,077
Fertilizer chemicals, including ammonium sulphate, ammonium nitrate (fertilizer grade), ammonium phosphate and superphosphate	104,793	110,209
Synthetic resins, including casein type, vinyls, polystyrene, phenol-formaldehyde, urea-formaldehyde, alkyds, sodium carboxymethyl cellulose, etc.	143,327	142,727
Other chemicals, including white lead, zinc oxide, red lead, litharge, cobalt salts, nickel salts, ferric chloride, lead arsenate, phosphorus, white arsenic, ammonium nitrate, fine chemicals, precious metal salts, etc.	126,805	109,931
Totals	873,358	945,393

TABLE 14. PRODUCTION, (1) IMPORTS, EXPORTS AND APPARENT CONSUMPTION OF SULPHURIC ACID, 1925-66

Year	Production	Imports	Exports	Apparent consumption (2)
1925	77,700	52	19,179	58,573
1930	100,020	150	571	99,599
1935	209,083	83	1,027	208,139
1940	301,444	142	2,244	299,342
1945	664,302	149	11,203	653,248
1950	756,110	332	44,417	712,025
1955	950,277	151	29,578	920,850
1957	1,290,000	1,000	29,500	1,261,500
1959	1,739,000	18,489	27,863	1,729,626
1960	1,673,000	9,526	43,440	1,639,086
1961	1,614,000	7,275	38,914	1,582,361
1962	1,696,000	7,162	34,960	1,668,202
1963	1,790,000	5,634	37,316	1,758,318
1964	1,941,000	4,209	67,409	1,877,800
1965	2,165,000	3,075	57,113	2,110,962
1966	2,500,000	6,947	54,948	2,451,999

(1) From all industries.

(2) No allowance made for changes in inventories.

TABLE 15. PRODUCTION, (1) IMPORTS AND EXPORTS OF CHLORINE AND CAUSTIC SODA, 1961-66

Year	Chlorine	Caustic soda(2)
		(100% Na OH)
	tons	
(a) Production:		
1961	354,000	415,000
1962	371,000	432,000
1963	423,000	485,000
1964	469,000	539,000
1965	569,000	643,000
1966	680,000	717,000
(b) Imports:		
1961	29,686	37,107
1962	32,478	53,062
1963	34,552	77,593
1964	42,848	55,222
1965	37,833	48,045 [†]
1966	17,934	26,584
(c) Exports:		
1961	19,965	..
1962	24,900	..
1963	27,000	..
1964	18,320	..
1965	39,124	..
1966	70,302	..

(1) From all industries.

(2) Imports of caustic soda solution are generally reported in terms of gross weight of approximately 50% Na OH. Figures in Table 15 have been converted to 100% Na OH to agree with the basis used in production and exports.

TABLE 16. AVAILABLE DATA ON THE CONSUMPTION OF SULPHURIC ACID, BY INDUSTRIES, 1965 AND 1966

Industry	1965	1966
	short tons of 100% acid	
Iron and steel mills	60,966	54,163
Other iron and steel	14,493	17,907
Electrical products	7,737	6,464
Vegetable oil mills	216	263
Sugar refineries	273	257
Leather tanneries	2,506	2,178
Pulp and paper mills	59,346	71,218
Uranium ore processing	70,795	84,491
Manufacturers of mixed fertilizers(1)	404,095	432,057
Manufacturers of plastics and synthetic resins	26,304	26,132
Manufacturers of soap and cleaning compounds	17,767	18,789
Other chemical industries	14,980	17,424
Manufacturers of industrial chemicals(2) (includes bauxite concentration)	1,041,401	1,309,870
Petroleum refining industry	18,359	25,932
Mining(3)	47,549	47,549
Miscellaneous(4)	91,367	103,595
Total accounted for	1,876,210	2,218,289

(1) Includes used for production of superphosphates.

(2) Includes consumption of "own make" or "captive" acid by firms classified to these industries.

(3) Includes metal mines, non-metal mines, mineral fuels and structural materials.

(4) Includes synthetic textiles, explosives and ammunition, other petroleum and coal, mineral wool, miscellaneous food industries and textile dyeing and finishing industries.

TABLE 17. AVAILABLE DATA ON THE CONSUMPTION OF CHLORINE, BY INDUSTRIES, 1965 AND 1966

Industry	1965	1966
	net tons	
Municipal waterworks (1959-latest available)	2,721	2,721
Mining(1) (1960-latest available)	5,113	5,113
Pulp and paper mills(2)	259,094	300,329
Textile dyeing and finishing plants	47	67
Manufacturers of plastics and synthetic resins	249	263
Manufacturers of soap and cleaning compounds	7,907	6,885
Manufacturers of industrial chemicals(2)	313,628	274,173
Miscellaneous food industries	903	1,016
Total accounted for	589,662	590,567

(1) Includes non-metal mines, metal mines, mineral fuels and structural materials.

(2) Includes consumption of "own make" or "captive" chlorine by firms classified to these industries.

TABLE 18. AVAILABLE DATA ON THE CONSUMPTION OF CAUSTIC SODA, BY INDUSTRIES, 1965 AND 1966

Industry	1965	1966
	net tons of 100% Na OH	
Pulp and paper mills(1)	299,336	355,066
Manufacturers of soap and cleaning compounds	29,492	31,326
Manufacturers of industrial chemicals(1) (includes bauxite concentration)	229,522 ^F	251,879
Petroleum refining	12,127	11,993
Manufacturers of plastics and synthetic resins	17,481	18,157
Other chemical industries	7,839	10,235
Miscellaneous food industries (includes starch and glucose)	2,844	2,670
Mining(2)	10,356	10,356
Iron and steel mills	1,098	937
Textile dyeing and finishing	203	286
Sugar refineries	129	198
Vegetable oil mills	334	264
Miscellaneous(3)	27,376	24,882
Total accounted for	639,137 ^F	718,249

- (1) Includes consumption of "own make" or "captive" caustic by firms classified to these industries.
 (2) Includes metal mines, non-metal mines, mineral fuels and structural materials.
 (3) Includes synthetic textile mills and plastic fabricators.

TABLE 19. FACTORY SHIPMENTS(1) OF AMMONIUM SULPHATE, 1961-66

Year	Shipments	Year	Shipments
	tons		tons
1961	278,527	1964	286,439
1962	291,683	1965	307,646
1963	257,581	1966	299,039

- (1) From all industries.

TABLE 20. FACTORY SHIPMENTS(1) OF PIGMENTS AND DRY COLOURS, 1961-66

Year	Shipments (2)	Year	Shipments (2)
	\$'000		\$'000
1961	28,477	1964	51,189
1962	33,306	1965	56,165
1963	42,416	1966	58,135

- (1) From all industries.
 (2) Includes white lead, red lead and litharge; colours, dry and in oils; acetylene black, satin white, zinc oxide, cobalt oxide, cobalt sulphate, carbon black, copper oxide, aluminum paste, synthetic iron oxide and titanium oxide.

TABLE 21. FACTORY SHIPMENTS OF SYNTHETIC RUBBER, 1961-66

Year	Quantity	Selling value at plant	Year	Quantity	Selling value at plant
	M pounds	\$'000		M pounds	\$'000
1961	372,254	83,427	1964	452,026	82,659
1962	372,394	80,200	1965	454,819	82,456
1963	409,390	79,076	1966	452,103	80,766

TABLE 22. FACTORY SHIPMENTS(1) OF ACETYLENE AND OXYGEN, 1961-66

Year	Acetylene		Oxygen(2)	
	Quantity	Selling value at plant	Quantity	Selling value at plant
	cu. ft.	\$'000	cu. ft.	\$'000
1961	178,777,276	6,967	1,888,655,030	12,387
1962	192,492,117	7,236	1,552,477,747	12,725
1963	197,462,519	7,690	1,704,636,705	12,244
1964	213,956,910	8,109	1,677,809,347	13,067
1965	214,717,178	8,186	1,708,540,072	13,799
1966	233,075,080	9,120	1,941,286,335	16,153

- (1) Includes only the shipments, chiefly in cylinders, or delivered by pipeline, to adjacent consuming plants. Does not include amounts made for own use by some chemical companies.
 (2) Excludes tonnage oxygen.

LIST OF ESTABLISHMENTS CLASSIFIED TO THIS INDUSTRY, 1966

(Does not include establishments classified to other industries, which as a secondary activity, manufacture products typical of this industry)

Name and location	Name and location
<u>Newfoundland</u>	<u>Ontario - Concluded</u>
L'Air Liquide and Canadian Liquid Air Co. Ltd., St. John's	Howards and Sons (Canada) Ltd., Cornwall
<u>Nova Scotia</u>	Huron Chemicals, Marathon Imperial Oil Enterprises Ltd., Sarnia Independent Oxygen and Acetylene Co. Ltd., Cornwall L'Air Liquide and Canadian Liquid Air Co. Ltd., Hamilton L'Air Liquide and Canadian Liquid Air Co. Ltd., London L'Air Liquide and Canadian Liquid Air Co. Ltd., Port Arthur L'Air Liquide and Canadian Liquid Air Co. Ltd., Sudbury L'Air Liquide and Canadian Liquid Air Co. Ltd., Toronto Liquid Carbonic Canadian Corp. Ltd., Maitland Liquid Carbonic Canadian Corp. Ltd., 41 Mill St., Toronto Liquid Carbonic Canadian Corp. Ltd., 565 Trethewey Dr., Toronto Matheson of Canada Ltd., Whitby National Oxygen Ltd. (Div. of Anthe Imperial Co. Ltd.), Oakville National Silicates Ltd., Toronto Naugatuck Chemicals, (Div. of Uniroyal (1966) Ltd.), Elmira Northern Pigment Co. Ltd., Towns Rd., Etobicoke Nuodex Products of Canada Ltd., Toronto Pfizer Company Limited, Cornwall Pigment and Chemical Co. Ltd., Milton Polymer Corporation Limited, Sarnia Resco Chemicals and Colours Ltd., Toronto Sherbrooke Metallurgical Co. Ltd., Dunnville St. Clair Chemical Ltd., Sarnia Union Carbide Canada Ltd., (Linde Gases Div.), Oakville Union Carbide Canada Ltd., (Linde Gases Div.), Sault Ste. Marie Union Carbide Canada Ltd., (Linde Gases Div.), Welland Vir Chem. of Canada Ltd., Cornwall Welland Chemicals of Canada Ltd., Port Colborne
<u>New Brunswick</u>	<u>Manitoba</u>
Allied Chemical (Maritimes) Ltd., Dalhousie Canadian Industries Limited, Dalhousie Fundy Chemical Corp. Ltd., Dorchester Cape, Westmorland L'Air Liquide and Canadian Liquid Air Co. Ltd., Moncton Palasperl Canada Ltd., St. Stephen Union Carbide Canada Ltd., (Linde Gases Div.), Saint John	Border Chemical Co. Ltd., Transcona L'Air Liquide and Canadian Liquid Air Co. Ltd., Winnipeg Liquid Carbonic Canadian Corp. Ltd., Winnipeg
<u>Quebec</u>	<u>Saskatchewan</u>
A.C.C. (Chrome Chemicals) Ltd., Ville D'Anjou Allied Chemical Canada Ltd., (Nichols Chemical Div.), Valleyfield Canadian Alcolac Ltd., Valleyfield Canadian Industries Limited, Shawinigan Falls Canadian Oxygen Ltd., Sherbrooke Canadian Titanium Pigments Ltd., Varennes Carter White Lead Co. of Canada Ltd., The, Montreal Chemicals Refineries Corp., Napierville Durham Industries (Canada) Limited, Montreal Electric Reduction Co. of Canada Ltd., Buckingham Electric Reduction Co. of Canada Ltd., Varennes Faymor Chemical Ltd., Boucherville Hercules (Canada) Ltd., St. Johns L'Air Liquide and Canadian Liquid Air Co. Ltd., Baie Comeau L'Air Liquide and Canadian Liquid Air Co. Ltd., Montreal L'Air Liquide and Canadian Liquid Air Co. Ltd., Quebec L'Air Liquide and Canadian Liquid Air Co. Ltd., Tracy Laurentide Chemicals and Sulphur Ltd., Montreal East McArthur Irwin Ltd., Outremont National Silicates Ltd., Valleyfield Ogilvie Flour Mills Co. Ltd., The, Montreal Shawinigan Chemicals Ltd., Montreal East Shawinigan Chemicals Ltd., Shawinigan Falls Shawinigan Chemicals Ltd., Varennes Shawinigan Chemicals Ltd., (Petrochemical Plant), Varennes Shell Canada Ltd., Montreal East Standard Chemical Limited, Beauharnois Tioxide of Canada Ltd., Tracy Union Carbide Canada Ltd., (Linde Gases Div.), Montreal Union Carbide Canada Ltd., (Linde Gases Div.), Sept-Isles	Armour Industrial Chemicals Ltd., Saskatoon Cominco Ltd., Regina Interprovincial Co-operative Ltd., Saskatoon L'Air Liquide and Canadian Liquid Air Co. Ltd., Regina
<u>Ontario</u>	<u>Alberta</u>
Allied Chemical Canada Ltd., Amherstburg Allied Chemical Canada Ltd., Corunna Allied Chemical Canada Ltd., (Nichols Chemical Div.), Port Arthur Allied Chemical Canada Ltd., (Nichols Chemical Div.), Sulphide Allied Chemical Canada Ltd., (Nichols Chemical Div.), Thorold Brockville Chemicals Div., Sogemines Ltd., Maitland Cabot Carbon of Canada Limited, Sarnia Canada Packers Limited, Toronto Canadian Industries Limited, Copper Cliff Canadian Industries Limited, Cornwall Canadian Industries Limited, Hamilton Canadian Industries Limited, Millhaven Canadian Oxygen Limited, Toronto Canadian Weatinghouse Co. Ltd., Port Hope Chinook Chemicals Corp. Ltd., Sombra Columbian Carbon (Canada) Ltd., Hamilton Cornwall Chemicals Limited, Cornwall Cyanamid of Canada Ltd., Niagara Falls Cyanamid of Canada Ltd., (Welland Works), Niagara Falls Cyanamid of Canada Ltd., Hamilton Dominion Colour Corporation Ltd., New Toronto Dow Chemical of Canada Ltd., Fort William Dow Chemical of Canada Ltd., Sarnia Dryden Chemicals Ltd., Dryden Du Pont of Canada Ltd., Maitland Dussek Bros. Canada Ltd., Belleville Elmira Acid and Chemical Ltd., Elmira Emery Industries (Canada) Ltd., London Ethyl Corporation of Canada Ltd., Corunna Sarchem Limited, Toronto Welland Suco Colour of Canada Ltd., Toronto	Canadian Chemical Co. Ltd., Edmonton Cominco Ltd., Calgary Dow Chemical of Canada Ltd., Fort Saskatchewan Inland Chemicals Ltd., Fort Saskatchewan L'Air Liquide and Canadian Liquid Air Co. Ltd., Calgary L'Air Liquide and Canadian Liquid Air Co. Ltd., Edmonton Naugatuck Chemicals, (Div. of Uniroyal (1966) Ltd.), Clover Bar Northwest Nitro Chemicals Ltd., Medicine Hat Thio-Pet Chemicals Ltd., Calgary Union Carbide Canada Ltd., (Linde Gases Div.), Edmonton Western Chemicals Limited, Duvernay Western Co-operative Fertilizers Ltd., Calgary
	<u>British Columbia</u>
	Allied Chemicals Canada Ltd., (Nichols Chemical Div.), Barnet Consolidated Mining and Smelting Co. of Canada Ltd., Kimberley Consolidated Mining and Smelting Co. of Canada Ltd., Tadamac Dow Chemical of Canada Ltd., Ladner Electric Reduction Co. of Canada Ltd., North Vancouver F.M.C. Chemical Ltd., Squamish Hooker Chemicals Ltd., Nanaimo Hooker Chemicals Ltd., North Vancouver L'Air Liquide and Canadian Liquid Air Co. Ltd., Cranbrook L'Air Liquide and Canadian Liquid Air Co. Ltd., Davson Creek L'Air Liquide and Canadian Liquid Air Co. Ltd., Kitimat L'Air Liquide and Canadian Liquid Air Co. Ltd., Nanaimo L'Air Liquide and Canadian Liquid Air Co. Ltd., Vancouver Liquid Carbonic Canadian Corp. Ltd., Prince George Liquid Carbonic Canadian Corp. Ltd., Vancouver Union Carbide Canada Ltd., Kimberley
	<u>Yukon</u>
	Jacobs Oxy. and Acei. Co. Ltd., Whitehorse

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