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DOMINION BUREAU OF STATISTICS - CANADA Dominion Statistician: R. H. Coats, B.A., F.S.S. (Hon.), F.R.S.C.

Mining, Metallurgical and Chemical Branch

Chief: W. H. Losee, B.Sc.

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CHEMICALS AND ALLIED PRODUCTS

THE ACIDS, ALKALIES AND SALTS INDUSTRY, 1932.

Production from the Acids, Alkalies and Salts Industry in 1932 was valued at 11,357,649, an increase of 3.7 per cent from the 1931 value of \$10,952,497. In 1932 this group covered 10 operating firms with 14 separate factories, 8 of which were located in Ontario, 3 in British Columbia, 2 in Quebec and 1 in Nova Scotia. These plants employed a capital of \$44 millions, of which 30.7 millions were invested in factory sites, buildings, machinery, tools and other equipment. The average number of persons employed was 1,679 and they were paid \$2,211,467 in salaries and wages.

Production of sulphuric acid, 66° Be, amounted to 136,846 tons of which 57,390 tons valued at \$759,553 were intended for sale and 79,473 tons were used in the producers' own acid plants or in associated works.

The directory appended to this report indicates the chemicals manufactured in each of the works in this group. Owing to the fact that each of these commodities, excepting sulphuric acid, was made in only one or two plants it is necessary to omit detailed figures of production. The main materials used in manufacturidgeare listed in Table 8. The total cost at the works of these materials was \$2,283,076 in 1932.

Table 1 - PHINCI	PAL S	TATISTICS 01	F THE AC:	IDS, ALKALI	ES AND SALT	IS INDUSTRY,	1928-1932.
			Average			Selling	Value
	. of	Capital	number	Salaries	Cost of	value of	added
Years pl	ants	employed	of em-	and	materials	products	by manu-
			ployees	wages	at works	at works	facturing
		4		÷.	\$	\$	\$
1928	16.	40,024,624	2,517	3,490,409	4,998,086	21,256,286	16,258,198
1929	15	49,417,431	2,897	4,338,686	6,301,121	28,021,972	21,720,851
1930	17	52,314,567	2,409	3,502,834	4,712,471	20,111,602	15,399,131
1931	14	44,994,828	1,694	2,426,880	2,407,682	10,952,497	8,544,815
1932 -							
Ontario	8	26,511,227	950	1,328,314	1,363,341	7,948,508	6,595,167
Other provinces	6	17,555,967	729	883,153	929,735.	3,409,141	2,479,406
CANADA	14	44,067,194	1,679	2,211,467	2,283,076	11,357,649	9,074,573

Table 2 - CAPITAL EMPLOYED, 1928-1932.

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	Capita	1 employed a	s represented l	oy:	
	Value of lands,	Inventory v	alucInventory	Operating_or:	ting
	buildings,	value of	valueofor	capital(cash,	
Years	machinery,	materials o	on finished	bills and	TOTAL
	tools and other	hand, stock	s products	accounts	CAPITAL
	equipment	in process,		receivable,	EMPLOYED
		fuel and ot	her	etc.	
		supplies			and the second
	\$	\$	\$	\$	\$
1928	30,644,348	3	3,270,108	6,110,168	40,024,624
1929	35,461,088	5	, 294, 456	8,661,887	49,417,431
1930	38,064,081	E	,054,885	9,195,601	52,314,567
1931	31,608,809	2,483,133	902,586	10,000,300	44,994,828
1932 -					
Ontario	15,950,301	1,283,146	832,393	8,445,387	26,511,227
Other provinces	14,795,873	1,113,613	574,197	1,072,284	17,555,967
CANADA	30,746,174	2,396,759	1,406,590	9,517,671	44,067,194

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TABLE 3 - EMPLOYEES, SALARIES AND WAGES, 1928-1932.

Ipars	On sa	laries	On wa	ges	Total	Salaries	Wages	Total Salaries
	Male	Female	Male	Female	Employees		Ŭ	and Wages
						Ę.	\$	\$
1928	332	. 27	2,152	6	2,517	781,403	2,709,006	3,490,409
1929	354	26	2,509	8	2,897	820,290	3,518,396	4,338,686
1930	351	37	2,017	4	2,409	888,220	2,614,614	3,502,634
1931	341	26	1,324	3	1,694	771,271	1,655,609	2,426,880
Ontario . Other	188	18	739	5	950	393,537	934,777	1,328,314
previnces	124	15	590		729	353,169	529,964	883,153
CANADA	312	33	1,329	5	1,679	746,726	1,464,741	2,211,467

-2-

Table 4 - WAGE-EARNERS, BY MONTHS, 1931 and 1932.

	1	9 3	1	1 9	3 2	
Months	Male	Female	TOTAL	Male Fen	ale TOTAL	
January	1,441	4	1,445	1,197	3 1,200	
February	1,441	4	1,445	1,201	3 1,204	
March	1,446	4	1,450	1,242	3 1,245	
April	1,299	4	1,303	1,256	3 1,259	
May	1,253	4	1,257	1,342	3 1,345	
June	1,269	3	1,272	1,348	3 1,351	
July	1,268	3	1,271	1,380	3 1,363	
August	1,308	3	1,311	1,364	3 1,367	
September	1,288	3	1,291	1,372	3 1,375	
October	1,291	3	1,294	1,434	6 1,440	
November	1,312	3	1,315	1,438 1	1 1,449	
December	1,271	3	1,274	1,358 1	4 1,372	
AVERAGE	1,324	3	1,327	1,329	5 1,334	

Table 5 - NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT, CLASSIFIED ACCORDING TO REGULAR HOURS PER WEEK, 1932. (Overtime not included)

Regular hours worked	Number of	Regular hours worked	Number of	
per week	wage-earners	per week	wage-earners	
40 hours or less	485	51 - 53 hours	12	
41 - 43 hours		54 hours	176	
44 hours	105	55 hours	27	
45 - 47 hours	82	56 - 59 hours	157	
48 hours	139	60 hours	32	
49 - 50 hours	.60	Over 60 hours	35	
		Total	1,620	

Table 6 - FUEL AND ELECTRICITY USED, 1931 and 1932.

		1 9	3 1	1 9	3 2
Kinds	Unit of		Cost at		Cost at
	measure	Quantity	works	Quantity	works
			\$		\$
Bituminous coal - Canadian	short ton	785	5,382		
Foreign	short ton	73,379	287,049	88,092	337,216
Anthracite coal	short ton	289	1,901	222	1,633
Coke	short ton	614	5,544	373	3,121
Gasoline	Imp. gal.			598	109
Fuel oil	Imp. gal.	132,648	12,621	51,833	3,718
Other fuel	xx		18,073		12,225
Electricity purchased	K.W.H.	758,632,752	1,837,015	727,131,543	1,745,653
TOTAL	XX		2,167,585		2,103,675
Electricity generated for					
OWN USE	K.W.H.	66,044,027		71,578,732	

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	1 9	3 1	1	9 3 2
linds	Number of	Total rated	Number of	Total rated
	units	horse power	units	horse power
team engines and steam turbines	37	11,535	41	11,568
asoline, gas and oil engines		360	1	135
ydraulic turbines and water wheels .		8,250	5	8,250
Total Primary Power	and the second se	20,145	47	19,953
lectric motors operated by purchased				
power	995	26,847	1,041	32,970
Total Power Employed	1,039	46,992	1,088	52,923
lectric motors operated by power				
gen raved in sume plant	376	8,350	398	5,977
Total Electric Power Employed .		35,197	1,439	38,947
Boilers	32	10,338	32	10,338

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Table 8 - MATERIALS USED IN MANUFACTURING, 1931 and 1932.

		1 9	3 1	1 9	3 2
Materials	Unit of		Cost at		Cost at
	moasure	Quantity	works	Quantity	works
			\$		÷.
Aluminium sulphate (paper-makers' alu	m) lb.	121,712	2,191	219,690	3,736
Ammonia liquor	lb.NH	3152,982	9,384	214,397	8,683
Ammonia, anhydrous		25,367	4,592	10,350	1,847
Calcium carbonate (limestone)	ton	163,273	229,021	296,965	340,004
Calcium fluoride (fluorspar)	ton	934	20,823	1,853	25,137
Coke (not for fuel)	ton	39,904	321,997	66,425	442,434
Coal (not for fuel)	ton	18,669	115,780	18,228	112,117
Electrodes	ton	1,276	101,103	2,277	185,339
Iron sulphide (pyrites)	ton	8,908	58,379	12,465	85,823
Silica	ton	6,012	21,262	6,342	20,921
Sodium carbonate (soda ash)	ton	262	7,617	199	6,343
Sodium chloride (common salt) includi	ng				and the second
brine (salt content)	ton	106,910	87,144	106,003	89,059
Sodium hydroxide (caustic soda)	ton	211	12,726	515	33,650
Sodium nitrate (Chile saltpetre)	ton	1,022	49,297	464	21,300
Sodium silicate (waterglass)	lb.			30,917	1,643
Sodium sulphate (salt cake)	ton	15,602	221,748	94	1,811
Sulphur (brimstone)	ton	15,308	327,281	9,101	180,269
Sulphuric acid, 66° Be	ton	1,602	30,829	1,753	35,151
Containers, etc			349,255		172,296
All other materials			437,253		515,513
TOTAL			2,407,682		2,283,076

LIST OF FIRMS INCLUDED IN THE ACIDS, ALKALIES AND SALTS INDUSTRY IN CANADA, 1932.

Name	Location of plant	Products made in 1932.
Dominion Steel & Coal Corp.Ltd.	Sydney, N.S.	Sulphuric acid.
Electric Reduction Co. Ltd.	Buckingham, P.Q.	Phosphorus, phosphoric acid and ferro-phosphorus, ammonium phosphate.
Shawinigan Chemicals Ltd.	Shawinigan hal. Falls, P.S.	SÇalcium carbide, acetylene, acety- lene carbon black, glacial acetic acid, butyl acetate, ethyl acetate, paraldehyde, croton aldehyde, vinyl acetate, pentosol acetate, and hydrated lime.
American Cyanamid Company	Niagara Falls, Ont.	Calcium cyanamide, and sodium cyanide.
Brunner, Mond Canada, Ltd.	Amherstburg, Ont.	Sodium carbonate (soda ash), tanners' alkali and super-alkali.

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Name	Location of plant	Products made in 1932.
Canadian Hanson & Van Winkle Co. Ltd.	15 Morrow Ave:, TToronto, Ont.	Plating and galvanizing salts (copper cyanide, copper carbonate, zinc cyanide).
Canadian Industries Limited	Copper Cliff,Ont.	Sulphuric aéid.
Canadian Industries Limited	Burlington St., Hamilton, Ont.	Acetic acid, hydrochloric acid, sulphuric acid, sodium sulphate (Glauber's salt), sodium sulphate (salt cake), cadmium anodes, soldering flux and sulphur dioxide (liquid).
Canadian Industries Limited	Sandwich, Ont.	Hydrochloric acid, liquid chlorine, sodium hydroxide(caustic soda), sodium hypochlorite, and synthetic anhydrous ammonia.
H. S. & T. Crystal Co. Ltd.	169 Yonge St. Toronto, Ont.	Satin white, solvent.
The Nichols Chemical Co. Ltd.	Sulphide, Ont.	Nitric acid, sulphuric acid, sodium bisulphate (nitre cake).
Canadian Industries Limited	New Westminster, B.C.	Sulphuric acid and hydrochloric acid.
Consolidated Mining & Smelting Co. of Canada, Ltd.	Trail, B.C.	Hydrofluosilicic acid, and sulphuric acid.
The Nichols Chemical Co. Ltd.	Barnet, B.C.	Sulphuric acid.



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