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THE ADHESIVES INDUSTRY

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PUBLICATIONS

The results of the annual Census of Industry are published by the Dominion Bureau of Statistics in a series of industry reports which are released each year as the compilations are completed. Reports for industries classified to the **Chemicals and Allied Products** Major Group are listed below, along with current and annual publications of related interest. Similar reports are issued for other industries. A complete catalogue of publications of the Bureau is available on request from the Information Services Division, Dominion Bureau of Statistics, Ottawa, or from the Queen's Printer, Ottawa.

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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.
- ^P preliminary figures.
- r revised figures.

This report is one in a series of about 130 publications which present the results of the 1959 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. An annual Census of Manufactures has been carried out by the Dominion Bureau of Statistics since 1916.

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 1959 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, warehousing 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 of 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 Standard Industrial Classification Manual, prepared by the Dominion Bureau of Statistics, provides for 135 three-digit industries in the manufacturing sector, arranged in 17 major groups. Reporting establishments are classified or allotted to specific industries on the basis of the value of principal products made or shipped.

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.

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.

The general request for the principal items of products on the short form for 1959 permitted a fairly complete compilation of the detailed quantities and values of commodity shipments. In the case of the detailed quantities and values of materials, fuel and electricity, however, and the monthly distribution of production workers, only the totals of data actually reported on the intermediate and long forms are contained in published reports and no attempt was made as in past years to estimate the generally small proportion of individual totals represented by detailed items omitted from the short forms.

The new approach has relieved an additional 12,000 establishments from filling out the regular long form. Establishments now receiving the short form number in excess of 20,000 and account for more than 54 per cent of the total number of establishments and a little more than 3 per cent of the total value of shipments.

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.

THE ADHESIVES INDUSTRY

1959

This report on the Adhesives Industry in Canadia covers the operations of all factories which made glue, mucilage, paste or special adhesives cements as their chief products. In 1959 there were 31 establishments in this group, 14 being located in Ontario; 10 in Quebec; 4 in British Columbia; 2 in Manitoba and 1 in Alberta.

Factory shipments by firms in the Adhesives Industry were valued at \$14,638,817 in 1959, an increase of 1.8 per cent over the \$14,380,563 reported in 1958. The number of employees decreased from 642 to 629, with an increase in salaries and wages from \$2,556,561 in 1958 to \$2,683,622 in 1959. The cost of fuel and electricity at \$370,512 showed a decrease from the \$439,027 reported in 1958 and the value of materials used directly in manufacturing processes was 6.7 per cent higher at \$7,597,580.

Output of adhesives during 1959, including small amounts from other industries, was as follows: linoleum cement, 15,899,000 pounds at \$834,000; rubber cement, 1,154,000 gallons at \$3,325,000; bone and hide glue, 8,021,000 pounds at \$1,946,000; casein glue, 1,072,000 pounds at \$297,000; flexible glue, 2,787,000 pounds at \$691,000; synthetic resin glue, 41,064,000 pounds at \$6,054,000; vegetable glues, 25,922,000 pounds at \$3,116,000; mucilage and paste valued at \$530,000; fish glue valued at \$326,000 and miscellaneous adhesives at \$3,002,000. The total value of all adhesives, including mucilage and paste was \$20,121,000 in 1959 compared with \$18,903,000 in 1958 and \$19,463,000 in 1957.

Note: Due to 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 warehouse.

Year and province	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost of materials at plant	Value added by manufacture ¹	Gross selling value of products ¹
	nui	mber			dollars		1210100
1929 1932 1937 1939 1943 1944 1945 1955 1956 1957 1958	13 14 18 19 22 22 25 29 29 29 29	$\begin{array}{c} 267\\ 229\\ 416\\ 427\\ 651\\ 674\\ 749\\ 576\\ 611\\ 627\\ \end{array}$	321, 296 263, 142 483, 819 520, 662 1, 091, 721 1, 223, 032 1, 727, 848 1, 934, 597 2, 152, 918 2, 321, 588	68,157 53,300 116,842 89,573 211,889 222,384 339,839 369,578 412,238 456,150	$\begin{array}{r} 962, 940\\ 457, 146\\ 901, 194\\ 905, 411\\ 3, 037, 649\\ 3, 749, 579\\ 4, 218, 359\\ 5, 030, 858\\ 5, 423, 688\\ 6, 475, 344\\ \end{array}$	$\begin{array}{c} 799, 547\\ 576, 769\\ 886, 101\\ 1, 115, 822\\ 2, 486, 613\\ 2, 812, 350\\ 3, 266, 366\\ 5, 368, 263\\ 6, 456, 530\\ 6, 720, 361\\ \end{array}$	1,830,644 1,087,215 1,904,137 2,110,806 5,736,151 6,784,313 7,824,564 10,908,938 12,329,512 13,707,648
Quebec Ontario British Columbia Manitoba	10 14 3 1	140 485 } 17	585, 299 1, 913, 368 57, 894	52, 763 382, 770 3, 494	1,883,061 4,984,929 252,730	1,610,921 4,862,758 398,945	3,504,397 10,235,749 640,417
Canada	28	642	2, 556, 561	439, 027	7, 120, 720	6, 872, 624	14, 380, 563
1959 Quebec. Ontario British Columbia Manitoba Alberta	10 14 4 2 1	$\left. \begin{array}{c} 135\\ 467\\ 27\end{array} \right\}$	584,914 2,006,839 91,869	48, 442 317, 264 4, 806	1,984,147 5,298,334 315,099	1,859,174 4,530,817 417,079	3,870,449 10,035,023 733,345
Canada	31	629	2, 683, 622	370, 512	7, 597, 580	6, 807, 070	14, 638, 817

 TABLE 1. Principal Statistics of the Adhesives Industry, Significant Years 1929-59

 and by Provinces, 1958 and 1959

¹ See note to text.

Note: Profits or losses cannot be calculated from the above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Tctal
		dol	lars	
Opening:				
Quebec	277,972	15,875	179,082	472,929
Ontario	744, 161	49,312	877,099	1,670,572
Other provinces	44,387	-	38,412	82, 799
Canada	1,066,520	65,187	1,094,593	2, 226, 300
Closing:				
Quebec	375,355	4,981	211, 290	591,626
Ontario	769,758		1,037,803	1,807,561
Other provinces	66,979	384	41,667	109.030
Canada	1,212,092	5,365	1,290,760	2, 508, 217

TABLE 2. Inventories,¹ 1959

¹ (a) Book value of all manufacturing inventories owned and held at plant and plant warehouses.
 (b) Beginning with 1954, information on the value of year-end inventory holdings at plant and plant warehouses is being collected as part of the annual Census of Industry. These data were formerly collected by a separate survey. The summarized results for the Adhesives Industry for the year under review are shown in the above table.
 (c) The opening inventory for 1959 does not necessarily agree with the closing inventory for 1958, because of the addition of new plants, the transfer of plants to other industries and plants going out of business, etc. However, the value added figures for the previous year have not been recalculated to allow for the changes mentioned above.

	195	8	195	59
Product	Quartity	Value of factory shipments	Quantity	Value of factory shipments
		\$		\$
Cement:				
Linoleum lb.	8,902,975	418.230	7,905,575	406,601
Other (rubber, etc.)		1,281,054		1,218,020
Glue:				
Bone and hide ¹ 1b.	10, 191, 811	2, 436, 807	8,020,713	1,945,619
Casein	561,019	140, 266	712,892	169.769
Flexible	2,715,410	638, 122	2, 787, 463	691, 130
Synthetic resin	8, 845, 889	2,603,333	9,692,225	3, 142, 519
Vegetable;				
Dry	2,351,994	300,303	2,558,408	328,713
Liquid	20,340,326	2,443,841	23, 364, 196	2, 787, 143
Other		278,088		484,101
Mucilage and paste lb.	4, 473, 384	547,077	3,246,817	484, 785
All other products ²		3, 293, 442		2, 980, 417
Totals		14, 380, 563		14, 638, 817

TABLE 3. Products Made in the Adhesives Industry, 1958 and 1959

¹ See footnote to Table 11.

² Includes sealing wax, grease, tallow, tankage, blended starches, dextrines, steamed bone and other such products which were reported by only one or two firms in this industry.

THE ADHESIVES INDUSTRY

	and a second	195	58	19 59		
Material		Quantity	Cost at works	Quantity	Cost at works	
			\$		\$	
Acid, sulphuric (as 100%)	lb.	1, 299, 040	18,877	1, 101, 454	15, 90	
Alcohol, ethyl, denatured or not (including tax)	Imp. gal.	41.691	31, 528	31, 420	27.31	
Alcohol, methyl	ē d	23, 515	13, 230	14,943	10,03	
Bones	ton	14, 432	448,034	12, 468	312.99	
Borax	lb.	862, 308	41, 683	859,050	43, 33	
Hides and hide trimmings	ton	21,531	303,016	19,437	308, 67	
Casein	1b.	487, 194	130, 859	559,210	132.06	
China-clay	6.6	5, 488, 224	95, 227	3, 228, 975	81, 58	
Dextrine		7, 799, 630	727.830	7, 692, 648	708.98	
Flour:						
Potato Tapioca	**	261.596	19,817	183, 187	13, 47	
Wheat		382,748 3,786,725	163, 353	394,934 3,372,321	46,03	
Other	4.6	242, 174	13, 390	214.940	12, 56	
Formaldehyde (100% solids content)	1.0	100,733	9,768	131, 987	12, 87	
Glucose	6.6	609, 494	44,083	456, 734	32,48	
Glue: Bone and hide		1 045 111	222 000	1 041 151	405.00	
Fish	4.0	1, 245, 111 852, 265	333, 699 175, 775	1, 641, 151 250, 943	437.20	
Glycerine	86	147.723	42, 270	152.625	45, 41	
Gums and resins, natural		547,717	72.946	658, 210	87.30	
Lignin liquor	Imp. gal.	294.377	34.336	255,006	32.22	
Lime	ton	611	11, 477	526	9, 90	
Phenol	lb.	17,929	3,932	20, 552	5, 26'	
Resins, synthetic	6.4	5,972,763	1, 172, 060	7, 147, 288	1, 240, 084	
Rubber or latex	66	1, 268, 175	341,054	1, 454, 660	437.080	
odium carbonate (soda ash)	6.6	98.414	3.756	184, 415	5, 73	
Sodium fluoride	£ 0	42, 314	6, 257	37, 847	5, 54	
Sodium hydroxide (caustic soda)	8.8	158,993	12, 281	297, 875	21, 459	
Solvents (benzol, naphtha, etc.)	Imp. gal.	320,912	220, 364	363.424	201.64	
Starch, corn	lb.	1, 317, 743	98,927	567, 469	55, 46	
Sulphur	6.6	122,600	2, 197	124,000	2,33	
Jrea, crystal		395,561	26, 435	419, 373	29,31	
Whiting	6.6	358, 513	10.071	289, 201	10,099	
Zinc sulphate		138.740	7, 393	138,902	7. 42	
Containers and packing materials			895, 353		1,089,890	
All other materials ¹			1, 547, 563		1,903,927	
Totals			7, 120, 720		7, 597, 580	

TABLE 4. Materials Used in the Adhesives Industry, 1958 and 1959

¹ No detailed information on materials used was collected from firms generally reporting value of shipments of less than \$200,000. The total estimated value of materials used by these firms was \$280,868 and this amount is included in "All other materials and supplies used".

	195	8	195	9
Item	Quantity	Value of factory shipments	Quantity	Value of factory shipments
		\$		\$
Cement:		22135		
Linoleum lb.	15,983,000°	818,000	15,899,000	834,000
Rubber	1.105.000	2,888,000	1,154,000	3,325,000
Other		837,000		789,000
Glue:				
Bone and hide ¹ 1b.	10,192,000	2,437,000	8,021,000	1,946,000
Casein	891,000	240,000	1,072,000	297,000
Flexible	2,715.000	638,000	2, 787, 000	691,000
Fish	1,185,000	326,000	981,000	326,000
Synthetic resin	37,666,000	5.641,000	41,064,000	6,054,000
Vegetable:				
Dry	2,352,000	300.000	2,558,000	329,000
Liquid	20,340,000	2,444,000	23, 364, 000	2, 787, 000
Other		278,000		260,000
Mucilage and paste		652,000		530,000
Adhesives, other		1,404,000		1,953,000
Totals		18, 903, 000		20, 121, 000

TABLE 5. Factory Shipments of Adhesives, from All Industries, 1958 and 1959

¹ See footnote to Table 11.

TABLE 6. Principal Statistics of the Adhesives Industry, classified according to Type of Ownership1958 and 1959

Type	Estab- lish- ments	Emplo	yees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
	nu	mber			dollars	
1958						
Individual ownership	3	1	12	33,060	58,732	133,960
Partnership	1	1				
Incorporated companies	24		630	2,523,501	7,061,988	14,246,603
Totals	28		642	2, 556, 561	7, 120, 720	14, 380, 563
and share a start and a start of the			-			
1959						
Individual ownership	3	1	14	35,750	79,777	174,170
Partnerships	2	1	1.20			
Incorporated companies	26		615	2,647,872	7,517,804	14,464.647
Totals	31	1	629	2, 683, 622	7, 597, 581	14, 638, 817

Establishments reporting value of factory shipments	Estab- lish- ments	Employees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
1958	nur	nber		dollars	
Jnder \$10,000	2 1 2 2	} 4	9,700	9,550	28, 270
50,000 ** 99,999	2	} 16	40,427	67,360	210, 17
100,000 '' 199,999 200,000 '' 499,999 500,000 '' 999,999 1,000,000 '' 4,999,999	3 8 4 6	20 87 119 396	81,982 319,562 566,542 1,538,348	296,119 1,493,266 1,468,597 3,785,828	487,49 2,563,24 2,862,79 8,228,58
Totals	28	642	2, 556, 561	7, 120, 720	14, 380, 56
1959					
Under \$10,000 10,000 to \$ 24,999 50,000 '' 99,999 100,000 '' 199,999 200,000 '' 499,999 500,000 '' 999,999 1,000,000 '' 4,999,999	3343756	5 19 22 113 121 344	$10,200 \\ 21,533 \\ 52,355 \\ 77,272 \\ 426,197 \\ 551,753 \\ 1,544,312$	7,283 30,795 90,943 285,674 1,254,524 1,720,989 4,207,372	13,956 53,596 251,711 425,890 2,253,355 3,390,892 8,249,415
Totals	31	629	2,683,622	7, 597, 580	14,638,81

TABLE 7. Principal Statistics of the Adhesives Industry in Canada, grouped according to Size of Establishment, 1958 and 1959

TABLE 8. Capital and Repair Expenditures in the Adhesives Industry, 1954-59

Year	Total capital and repair expenditures	Year	Total capital and repair expenditures
	\$'000		\$'000
1954	598	1957	1,010
1955	445	1958	612
1956	872	1959 ^p	932

TABLE 9. Employees and their Earnings in the Adhesives Industry, 1958 and 1959

_		E	Employee	s			Earnings	
Province		d office workers		Total	Supervisory	Production	Total	
	Male	Female	Male	Female		office	workers	10041
			number				dollars	
1958		1		1				
Quebec Ontario Manitoba and British Columbia	40 104 5	31 58 4	67 300 8	2 23 	140 485 17	323,918 802,859 28,619	261, 381 1, 110, 509 29, 275	585,299 1,913,368 57,894
Canada	149	93	375	25	642	1,155,396	1,401,165	2, 556, 561
1959								
Quebec Ontario Manitoba, Alberta and British	40 96	30 57	62 286	3 28	135 467	319, 613 873, 153	265,301 1,133,686	584,914 2,006,839
Columbia	9	4	14	-	27	45,093	46,776	91,869
Canada	145	91	362	31	629	1,237,859	1,445,763	2,683,622

CHEMICALS AND ALLIED PRODUCTS

Month	Establishments reporting monthly detail ¹			
	Male	Female		
January	364	29		
February	371	29		
March	378	29		
April	376	28		
May	366	29		
une	350	30		
July	293	29		
August	353	34		
eptember	342	35		
October	346	29		
Vovember	317	30		
December	323	29		
Average for establishments reporting monthly detail	349	30		
Average estimated for small establishments ²	13	1		
Average for all establishments	362	31		

TABLE 10. Production Workers in the Adhesives Industry, by Months, 1959

¹ The number of production workers, by months, was collected only for establishments generally reporting value of shipments of \$200,000 and over. ² For establishments generally reporting value of shipments of less than \$200,000, no data on number of workers were collected. Average was estimated by using change in value of shipments to arrive at value of payroll which was then used in conjunction with estimated average earnings to arrive at number of workers.

Item	1958		1959	
	pounds	\$	pounds	\$
Glue:				
Animal ¹	7, 181, 373	1, 147, 011	5,197,515	817, 402
Synthetic resin	2,836,508	886, 310	3, 310, 311	978,828
Other	104,099	36, 758	55,636	26,137
Mucilage and adhesive paste	393,250	92,400	343, 183	85,142
Rubber cement		838, 475		881,880

TABLE 11. Imports of Adhesives, 1958 and 1959

¹ Some of the material shown under this heading was mixed with domestically produced bone and hide glue to increase the bonding strength of the latter and, therefore, appears again in the figures shown in tables 3 and 5 for bone and hide glue.

THE ADHESIVES INDUSTRY

Kind	Quantity	Cost at plant
		\$
. Establishments reporting commodity detail: ¹ Bituminous coal - Imported ton Coke Gasoline (including gasoline used in cars and trucks) Imp. gal. Fuel oil including kerosene or coal oil Gas (a) Liquefied petroleum gases (c) (b) Natural gas Mcf. Electricity purchased kwh.	20,837 53 74,251 494,666 1,254 2,786 5,296,919	216, 648 1, 191 28, 777 52, 981 435 4, 218 48, 319 9, 700
2. Estimate for establishments for which no data were collected: ² Cost of fuel and electricity		8,243
All establishments: Total cost of fuel and electricity	4 9 0	370, 512

TABLE 12. Fuel and Electricity Used in the Adhesives Industry, 1959

¹ Establishments generally reporting value of shipments of \$200,000 and over. ² Establishments generally reporting value of shipments of less than \$200,000

List of	Firms in	the Adhesives	Industry, 1959
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Name	Address	
Quebec:		
Arol Chemical Co. Ltd.		
B.B. Chemical Co, of Canada Canadian Adhesives Ltd.		
Dominion Flour Paste Co., The		
Dural Products Ltd.		
General Adhesives	St. Janvier	
Industrial Adhesives Ltd. National Starch & Chemical (Canada) Ltd.		
Swift Canadian Co. Ltd.		
Wolverine Products & Sales Limited		
Ontario:	WF A 77(1)	
Borden Chemical Co. (Canada) Ltd., The Canada Glue Co. Limited		
Continental Chemical Company		
Deplex Adhesives Ltd.	133 Jefferson Ave., Toronto	
Harris, W., & Co., Limited	600 Lakeshore Blvd. E., Toronto	
Industrial Adhesives Ltd.		
Le Page's Inc. Machon Sealing Wax Company, The	678 Perliement St. Toronto	
McCormick & Co. (Canada) Limited	164 Bentworth, Toronto	
National Starch & Chemical (Canada) Ltd.	363 - 379 Wallace Ave., Toronto	
Stadex-Pirie Limited		
Stein-Hall Limited Swift Canadian Co. Ltd.	1130 Dupont St., Toronto	
Wolverine Cement Company Limited	200 Grand River Ave., Brantford	
worverine Centeric Company Dimited		
Manitoba:		
Fuller, H.B. Company (Canada) Ltd. Swift Canadian Co. Ltd.	Archibald St., St. Boniface	
Switt Calladian Co. Dia.		
Alberta:		
Wendar Adhesives Corp.	7869 - 75th St., Edmonton	
British Columbia:		
G.R. Chemicals Ltd.	450 Vemon Dr., Vancouver	
Swift Canadian Co. Ltd.	Brunette St., New Westminster	
Uniplast Products Ltd.	750 Powell Ave., Vancouver	
Universal Enterprises Ltd.	236 Esplande E., N. Vancouver	

