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# MARKET INTELLIGENCE

**CHLORINE** 

Pub. No.: 93118-IP

December 1993





Pub. No.: 93118-IP

December 1993

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#### REFERENCE SOURCES

Industry Canada

Statistics Canada, Tel.: (613) 951-9647 Revenue Canada, Tel.: (613) 954-6919

U.S. Department of Commerce,

Bureau of the Census, Tel.: (301) 763-7754

#### **EXPLANATORY NOTES**

#### **Commodity Classification**

Canadian trade statistics are classified and published according to the International Convention on the Harmonized Commodity and Description Coding System (H.S.), as defined by the Canadian Customs Tariff and Statistical Nomenclature.

#### Valuation

For Customs purposes, imports are recorded at values established according to the provisions of the Customs Act, which, since January 1, 1985, reflects valuation methods based on the General Agreement on Tariffs and Trade (GATT) Valuation Code System. It generally requires the value for duty of imported goods be equivalent to the transaction value or the price actually paid or payable provided that a number of conditions are met. One of the important conditions is that the buyer and seller must be independent of each other. If the conditions are not met, practical rules are used to determine the Customs value. Therefore, Canadian imports are valued Free on Board (F.O.B.), place of direct shipment to Canada. The Customs value excludes freight and insurance costs in bringing the goods to Canada from the point of direct shipment. Canadian exports to the U.S. are valued F.O.B. point of exit from Canada. Prior to 1990, they were valued F.O.B. place of lading net of freight charges, discounts and allowances.

Rounding

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Figures may not add due to rounding.

Canada - U.S. Exchange Rate

The Bank of Canada exchange rates were used to convert WSt imports reported in \$US to \$Cdn.

TECHNICH OCH TIANADA

Canada - U.S. Reconciliation

For statistical purposes, Canada and the United States have been exchanging import data as of January 1990. Any discrepancy between what Canada reports as exports to the United States and what the United States reports as imports from Canada is due to variations in exchange rates used to convert U.S. import data from U.S. dollars to Canadian dollars for purposes of this publication.

#### **Abbreviations**

N/A - Not Applicable

KGM - Kilogram

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#### INTRODUCTION AND SCOPE

This is one of a continuing series of market intelligence reports designed to increase business awareness of the potential existing for production in Canada and to assist businesses and other organizations in their market research of specific products. The detailed information provided in these reports supports studies by organizations seeking to expand existing production lines, change individual product characteristics or engage in new manufacturing investment in Canada. The coverage of a market intelligence report is developed in close consultation with the client, and is tailored to meet their specific requirements. It is important to emphasize that this report does not attempt any assessment as to the feasibility of competing in a particular market.

This report is based on data from several sources for the following Harmonized System (H.S.) commodity code:

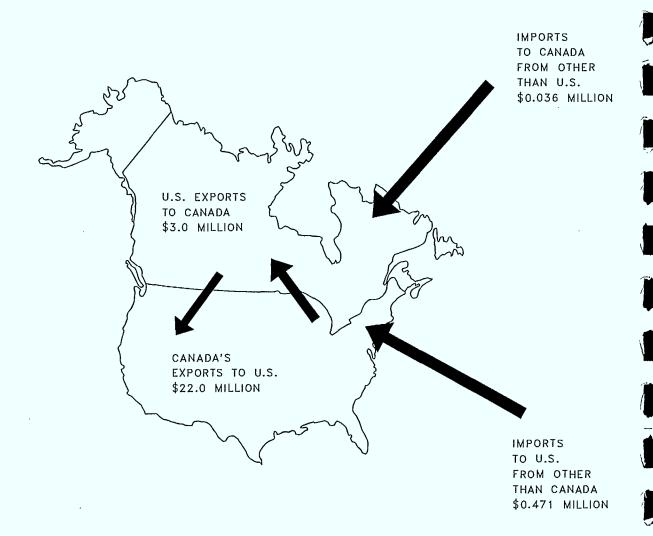
**Description** 

H.S. Commodity
Code Analyzed

Chlorine

2801.10.00.00

## **NORTH AMERICAN IMPORTS - 1992**



## North American Imports - \$0.5 Million\*

<sup>\*</sup> Excludes Canada - U.S. Bilateral Trade; excludes Mexico

## **CANADIAN IMPORT TRENDS**

## BY MAJOR COUNTRY OF ORIGIN

Country of Origin	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u> *	Average Annual Growth Rate 1990-92 (%)
United States					
Quantity (000 KG	GM) 35 910	24 372	17 304	11 551	-30.6
Value (\$000)	6 160	4 036	2 998	2 157	-30.2
Italy					
Quantity (000 KG	GM) 106	146	95	71	-5.2
Value (\$000)	23	32	21	16	-5.2
United Kingdom					
Quantity (000 KG	GM) 136	57	61	57	-32.9
Value (\$000)	33	12	. 14	16	-36.3
Other					
Quantity (000 KG	GM) 0	-	23	-	0.0
Value (\$000)	0		4	-	0.0
TOTAL					
Quantity (000 KG Value (\$000)	GM) 36 152 6 216	24 575 4 080	17 483 3 036	11 679 2 189	-30.5 -30.1

NOTES: Ranked in descending order by 1992 value.

<sup>\*</sup> The latest year is cumulative to the third quarter.

## **CANADIAN IMPORT TRENDS (Cont'd)**

## MARKET SHARES BY MAJOR COUNTRY OF ORIGIN

Country of Origin	<u>1990</u> %	<u>1991</u> %	<u>1992</u> %	1993* %
United States	70	70	70	/0
Quantity	99.3	99.2	99.0	98.9
Value	99.1	98.9	98.7	98.5
Italy				
Quantity	0.3	0.6	0.5	0.6
Value	0.4	0.8	0.7	0.7
United Kingdom				
Quantity	0.4	0.2	0.4	0.5
Value	0.5	0.3	0.4	0.7
Other				
Quantity	0.0	0.0	0.1	0.0
Value	0.0	<u> </u>	-0.1	<u>0.0</u>
TOTAL				
Quantity	100.0	100.0	100.0	100.0
Value	100.0	100.0	100.0	100.0
	200,0		100.0	100.0

NOTES: Ranked in descending order by 1992 value.

 $<sup>\</sup>mbox{\ensuremath{\star}}$  The latest year is cumulative to the third quarter.

## **CANADIAN IMPORT TRENDS (Cont'd)**

## AVERAGE UNIT PRICES BY MAJOR COUNTRY OF ORIGIN (\$ per KGM)

Country of Origin	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u> *
United States	0.17	0.17	0.17	0.19
Italy	0.22	0.22	0.22	0.22
United Kingdom	0.24	0.22	0.22	0.28
Other	0.22	<u> </u>	0.16	-
All Countries	0.17	0.17	0.17	0.19

NOTES : Ranked in descending order by 1992 value.

 $<sup>\</sup>mbox{\scriptsize {\bf *}}$  The latest year is cumulative to the third quarter.

## **CANADIAN IMPORT TRENDS (Cont'd)**

## BY PROVINCE OF CLEARANCE

Province of	<u>Clearance</u>		<u>1990</u>	<u>]</u>	<u>1991</u>		1992		<u>1993</u> *	Average Annual Growth Rate 1990-92 (%)
British Col	umbia									(10)
Quantity		22	567	15	627	10	903	4	767	-30.5
	(\$000)		820		520		812	•	843	-31.1
Ontario	(4000)	ŭ	020			_	0.2		0.10	01.1
Quantity	(000 KGM)	6	891	4	804	3	829	5	308	-25.5
	(\$000)		233	•	844	Ū	709		038	-24.1
Alberta	(4000)	_			• • •		, 00	_	000	
Quantity	(000 KGM)	2	098	2	084	1	676	1	206	-10.6
	(\$000)	_	368	_	358	_	301	_	199	-9.6
Québec	(400)				• • • •					
Quantity	(000 KGM)	4	355	1	623		569		57	-63.9
Value	(\$000)	•	738	_	273		103		13	-62.7
Saskatchewa										
Quantity			127		46		286		315	50.3
	(\$000)		28		10		61		69	48.4
Manitoba	( /						-		•	
Quantity	(000 KGM)		20		268		142		4	167.9
	(\$000)		4		46		26		i	143.9
Nova Scotia			•		•				_	
Quantity			95		112		69		9	-14.7
Value	(\$000)		25		25		15		8	-22.4
New Brunswi					_					
Quantity	(000 KGM)		_		1		7		12	N/A
Value	(\$000)		_		ī		8		19	N/A
Newfoundlan					_		_			.,
Quantity			_		9		1		_	N/A
Value	(\$000)		_		2		**		-	N/A
	,									<del></del>
TOTAL										
<b>Q</b> uantity <b>V</b> alue	(000 KGM) (\$000)	36 6	152 216		575 080		483 036		679 189	-30.5 -30.1

NOTES: Ranked in descending order by 1992 value.

 $<sup>\</sup>mbox{\scriptsize {\tt *}}$  The latest year is cumulative to the third quarter.

<sup>\*\*</sup> Less than \$500.

## **CANADIAN IMPORT TRENDS (Cont'd)**

## MARKET SHARES BY PROVINCE OF CLEARANCE

Province of Clearance	<u>1990</u> %	<u>1991</u> %	<u>1992</u> %	<u>1993</u> *
British Columbia				
Quantity	62.4	63.6	62.4	40.8
Value	61.5	61.8	59.7	38.5
Ontario				
Quantity	19.1	19.5	21.9	45.5
Value	19.8	20.7	23.4	47.4
Alberta				
Quantity	5.8	8.5	9.6	10.3
Value	5.9	8.8	9.9	9.1
Québec				
Quantity	12.0	6.6	3.3	0.5
Value	11.9	6.7	3.4	0.6
Saskatchewan				
Quantity	0.4	0.2	1.6	2.7
Value	0.4	0.2	2.0	3.2
Manitoba				
Quantity	0.1	1.1	0.8	0.0
Value	0.1	1.1	0.9	0.0
Nova Scotia				
Quantity	0.3	0.5	0.4	0.1
Value	0.4	0.6	0.5	0.3
New Brunswick				
Quantity	- '	0.0	0.0	0.1
Value	-	0.0	0.3	0.9
Newfoundland				
Quantity	-	0.0	0.0	
Value		0.0	0.0	
TOTAL				
Quantity	100.0	100.0	100.0	100.0
<b>V</b> alue	100.0	100.0	100.0	100.0

NOTES: Ranked in descending order by 1992 value.

<sup>\*</sup> The latest year is cumulative to the third quarter.

## **CANADIAN IMPORT TRENDS (Cont'd)**

## AVERAGE UNIT PRICES BY PROVINCE OF CLEARANCE (\$ per KGM)

Province of Clearance	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u> *
British Columbia	0.17	0.16	0.17	0.18
Ontario	0.18	0.18	0.19	0.20
Alberta	0.18	0.17	0.18	0.16
Québec	0.17	0.17	0.18	0.22
Saskatchewan	0.22	0.22	0.21	0.22
Manitoba	0.22	0.17	0.18	0.22
Nova Scotia	0.27	0.22	0.22	0.81
New Brunswick	-	1.61	1.08	1.52
Newfoundland	<u> </u>	0.22	<u>0.22</u>	-
All Provinces	0.17	0.17	0.17	0.19

NOTES : Ranked in descending order by 1992 value.

<sup>\*</sup> The latest year is cumulative to the third quarter.

#### **CANADIAN IMPORTERS**

CHLORINE (H.S. 2801.10.00.00)

There were 67 known importers in 1992. The principal 15 importers accounted for 93 per cent of the total import value.

l	Principal		Cumulative				Cumulative % of		
	<u>Importers</u> (No.)		tity KGM)		alue \$000)	<u>Total</u>	Quantity	<u>Total Value</u>	
	3	9	727	1	549		56	51	
$\cap$	6	14	566	2	381		83	78	
4	10	15	855	2	673		91	88	
	15	16	430	2	809	•	94	93	
	25	17	181	2	963		98	98	
A11	Importers								
	(67)	17	483	3	036		100	100	

NOTE: Principal importers are ranked by value

Importers during 1992 are listed below in alphabetical order. This list does not include individuals. The importer is not necessarily the end-user of the product.

## Name

Air Products Canada Ltd. Atlantic Purification Systems Ltd. Canadian Miraclean Products Ltd. Group B Canadian Pacific Forest Products Limited Canadian Tire Corporation Limited Cantech Corporation Limited Cardiovision Supplies Inc. CGT Home Fashions Ltd. Croft Agritil Corporation Fletcher Challenge Canada Limited Fletcher Challenge Canada Ltd. Crofton Pulp Paper Fryston Can Inc. G H Wood & Company Ltd. Georgia-Pacific Corporation Inc. LCP Chemicals a Division of Hanlin Group Inc. MacMillan Bloedel Limited Methot Sales Ltd. Olin Corporation Inc. Prairiechem Inc. Ronsco Inc. Safety Supply Canada Ltd.

## Location

Brampton, Ont.
Dartmouth, N.S.
Richmond, B.C.
Ottawa, Ont.
Brampton, Ont.
Calgary, Alta.
Gormley, Ont.
Cambridge, Ont.
London, Ont.
Vancouver, B.C.
Crofton, B.C.

Mississauga, Ont. Mississauga, Ont. Bellingham, WA, U.S.\* Montréal, Qué.

Vancouver, B.C. Gloucester, Ont. Stamford, CT, U.S.\* Saskatoon, Sask. Montréal, Qué. Richmond Hill, Ont.

<sup>\*</sup> Non-resident importer.

## **CANADIAN IMPORTERS (Cont'd)**

CHLORINE (H.S. 2801.10.00.00) (Cont'd)

#### <u>Name</u>

Saskatoon Chemicals Ltd.
Stanchem Inc.
VWR Scientific Canada Ltd.
W.H. Shurtleff Co. Ltd.
Wabash Alloys Ontario, Div. of Connell
Ltd. Partnership
Welland Chemical Ltd.
Western Pulp Inc.
Weyerhaeuser Canada Ltd.

#### Location

Saskatoon, Sask. Etobicoke, Ont. London, Ont. South Portland, ME, U.S.\* Toronto, Ont.

Mississauga, Ont. Vancouver, B.C. Kamloops, B.C.

<sup>\*</sup> Non-resident importer.

#### FOREIGN EXPORTERS TO CANADA

CHLORINE (H.S. 2801.10.00.00)

Major exporters to Canada are listed in descending order of dollar value. These exporters accounted for 94 per cent of the total value of Canadian imports during 1992.

Country of Origin	Name of Foreign Exporter		1992 Value of Exports to Canada (\$000)
United States	Atochem North America		899
	Penwalt Corporation Weyerhaeuser Company	)	1 133*
	Olin Corp. Jones Chemical Inc.	)	501*
	Hach Company Ltd.		93
	PPG Industries King Technology Inc.	)	117*
Italy	Georgia Pacific Corp. Neotronics of North America Wabash Alloys Div (Uin) Amuchina	}	1 <b>0</b> 8*
TOTAL			2 851

<sup>\*</sup> Aggregated to preserve confidentiality of Canadian importers.

#### **CANADIAN SHIPMENTS**

Statistics Canada reports that shipments of Chlorine for 1991 (latest year available) totalled \$70.9 million.

Any enquiries and/or comments regarding Canadian shipments should be directed to:

Statistics Canada
Industry Division
Survey of Manufacturing Section
Ottawa, Ontario
K1A OT6
Tel.: (613) 951-3513

Source: Catalogue #46-250, annual, "Chemical and Chemical Products Industries".

### **CANADIAN EXPORT TRENDS**

### BY MAJOR COUNTRY OF DESTINATION

	<u>Destination</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u> *	Average Annual Growth Rate 1990-92 (%)
United Stat						
Quantity	(000 KGM)	322 424	268 016	247 069	224 031	-12.5
Value	(\$000)	39 854	25 751	25 475	25 615	-20.0
Cuba	(+000)					
Quantity	(000 KGM)	-	_	21	6	0.0
Value	(\$000)	-	_	83	35	0.0
Other	(4200)			,		
Quantity	(000 KGM)	27	20	-	-	N/A
Value	(\$00 <b>0</b> )	11	2			<u> </u>
TOTAL						
Quantity	(000 KGM)	322 451	268 035	247 090	224 037	-12.5
Value	(\$000)	39 865	25 753	25 558	25 650	-19.9

NOTES : Ranked in descending order by 1992 value.

See note on page two concerning Canada-U.S. Reconciliation.

 $<sup>\</sup>mbox{\ensuremath{\star}}$  The latest year is cumulative to the third quarter.

## **CANADIAN EXPORT TRENDS (Cont'd)**

## MARKET SHARES BY MAJOR COUNTRY OF DESTINATION

Country of Destination	<u>1990</u> %	<u>1991</u> %	<u>1992</u> %	<u>1993</u> *
United States				
Quantity Value	100.0 100.0	100.0 100.0	100.0 99.7	100.0 99.9
Cuba Quantity	-	-	0.0	0.0
Value Other	-	-	0.3	0.1
Quantity Value	0.0 0.0	0.0	0.0	0.0 0.0
TOTAL	<u>. 0.0</u>	<u></u>		
Quantity Value	100.0 100.0	100.0 100.0	100.0 100.0	100.0 100.0

NOTES : Ranked in descending order by 1992 value.

<sup>\*</sup> The latest year is cumulative to the third quarter.

## **CANADIAN EXPORT TRENDS (Cont'd)**

## BY PROVINCE OF ORIGIN

Province of Origin	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u> *	Average Annual Growth Rate 1990-92 (%)
Ontario	220 554	182 601	203 479	144 277	2.0
Quantity (000 KGM) Value (\$000)	28 747	20 849	203 479	18 081	-3.9 -12.9
Québec	20 /4/	20 649	21 601	10 081	-12.9
Quantity (000 KGM)	21 956	36 542	37 698	25 723	31.0
Value (\$000)	2 406	2 839	3 080	2 801	13.1
New Brunswick	2 400	2 033	3 000	2 001	13.1
Quantity (000 KGM)	163	1 330	4 736	2 945	438.6
Value (\$000)	28	215	566	463	345.8
British Columbia			000	.00	010.0
Quantity (000 KGM)	77 944	47 482	279	48 390	-94.0
Value (\$000)	8 532	1 839	62	3 736	-91.5
Saskatchewan			- <del>-</del>		•
Quantity (000 KGM)	1 560	_	898	2 621	N/A
Value (\$000)	110	_	50	561	N/A
Manitoba					•
Quantity (000 KGM)	-	-	-	82	_
Value (\$000)	-		_	7	-
Alberta `	,				
Quantity (000 KGM)	271	80	-	_	N/A
Value (\$000)	39	11	_	-	N/A
Nova Scotia					•
Quantity (000 KGM)	4	-	-	_	0.0
Value (\$000)	2				0.0
TOTAL					
Quantity (000 KGM) Value (\$000)	322 451 39 865	268 035 25 753	247 090 25 558	224 037 25 650	-12.5 -19.9

NOTES : Ranked in descending order by 1992 value.

 $<sup>\</sup>mbox{\ensuremath{\star}}$  The latest year is cumulative to the third quarter.

## **CANADIAN EXPORT TRENDS (Cont'd)**

## MARKET SHARES BY PROVINCE OF ORIGIN

Province of Origin	<u>1990</u> %	<u>1991</u> %	<u>1992</u> %	<u>1993</u> *
Ontario				
Quantity	68.4	68.1	82.4	64.4
Value	72.1	81.0	85.3	70.5
Québec				
Quantity	6.8	13.6	15.3	11.5
Value	6.0	11.0	12.1	10.9
New Brunswick		•		
Quantity	0.1	0.5	1.9	1.3
Value	0.1	0.8	2.2	1.8
British Columbia				
Quantity	24.2	17.7	0.1	21.6
Value	21.4	7.1	0.2	14.6
Saskatchewan				
Quantity	0.5	-	0.4	1.2
Value	0.3	-	0.2	2.2
Manitoba				
Quantity	-	-	-	0.0
Value	-	-	_	0.0
Alberta				
Quantity	0.1	0.0	-	
Value	0.1	0.0	_	
Nova Scotia				
Quantity	0.0	-	-	-
Value	0.0	<del>_</del>		_
TOTAL				
Quantity	100.0	100.0	100.0	100.0
Value	100.0	100.0	100.0	100.0

NOTES : Ranked in descending order by 1992 value.

<sup>\*</sup> The latest year is cumulative to the third quarter.

## **CANADIAN EXPORT TRENDS (Cont'd)**

## AVERAGE UNIT PRICES BY PROVINCE OF ORIGIN (\$ per KGM)

Province of Origin	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u> *
Ontario	0.13	0.11	0.11	0.13
Québec	0.11	0.08	0.08	0.11
New Brunswick	0.17	0.16	0.12	0.16
British Columbia	0.11	0.04	0.22	0.08
Saskatchewan	0.07	-	0.06	0.21
Manitoba	-	-	-	0.09
Alberta	0.14	0.14	-	-
Nova Scotia	<u>0.38</u>	. ———		
All Provinces	0.12	0.10	0.10	0.11

NOTES: Ranked in descending order by 1992 value.

<sup>\*</sup> The latest year is cumulative to the third quarter.

#### **CANADIAN SUPPLIERS**

The following lists are taken from two sources: a) the Business Opportunities Sourcing System (BOSS), a computerized data bank established by Industry Canada; and, b) the Canadian Trade Index, published by the Canadian Manufacturers' Association (CMA). These lists may not include all suppliers of the products in question, as companies must themselves register in BOSS or the Canadian Trade Index. In both cases, information on Canadian products supplied is as given by the companies.

The following list is taken from the Business Opportunities Sourcing System (BOSS), a computerized data bank established by Industry Canada. This list may not include all suppliers of the products in question, as companies must themselves register in BOSS. Information on Canadian products supplied is as given by the companies.

## BOSS

Companies are arranged in alphabetical order.

#### Chlorine/Halogen

#### Name

Canadian Miraclean Products Ltd.
Canadian Occidental Petroleum Ltd.
\*Dow Chemical Canada Inc.
\*ICI Canada Inc.
Javex Mfg. Cda., Division Colgate Palmolive
\*Prairiechem Inc.

\*Saskatoon Chemicals Ltd. Welland Chemical Ltd.

### Location

Richmond, B.C. Vancouver, B.C. Sarnia, Ont. North York, Ont. Toronto, Ont. Calgary, Ont. Saskatoon, Sask. Sarnia, Ont.

Any enquiries and/or comments regarding the BOSS list should be directed to:

Business Opportunities Sourcing System Industry
Canada
235 Queen Street
Ottawa, Ontario K1A OH5
Tel.: (613) 954-5031

Telex: 053-4123

Fax.: (613) 954-1894

<sup>\*</sup> Company engaged in export trade.

## **CANADIAN SUPPLIERS (Cont'd)**

#### CANADIAN TRADE INDEX

Companies are arranged in alphabetical order.

### Chlorine, Liquid

## <u>Name</u>

## **Location**

\*Canadian Miraclean Products Ltd.

\*Prairiechem Inc.

\*Saskatoon Chemicals Ltd.

Richmond, B.C. Saskatoon, Sask. Saskatoon, Sask.

Any enquiries and/or comments regarding the Canadian Trade Index list should be directed to:

The Canadian Manufacturers' Association 4th Floor 75 International Boulevard Etobicoke, Ontario M9W 6L9

Tel.: (416) 798-8000 Fax.: (416) 798-8050

<sup>\*</sup> Company engaged in export trade.

### **UNITED STATES IMPORTS**

### BY MAJOR COUNTRY OF ORIGIN

CHLORINE (H.S. 2801.10.00.00)

Country of	<u>Origin</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u> *	Average Annual Growth Rate 1990-92 (%)
Canada						<b>()</b>
Quantity	(000 KG)	323 285	268 <b>0</b> 16	247 069	224 031	-12.6
Value	(\$000)	37 029	22 586	22 073	22 259	-22.8
South Afric						
Quantity	(000 KG)	257	935	1 443	. 0	137.1
Value	(\$000)	141	152	239	2	30.1
Spain	•					
Quantity		_	-	326	-	0.0
Value	(\$000)	-	_	90	-	0.0
Japan						
Quantity	(000 KG)	172	1	1	13	-92.2
Value	(\$000)	119	69	89	319	-13.8
United King	gdom					
Quantity	(000 KG)	0	1	40	-	857.1
Value	(\$000)	2	8	31	-	271.4
France	•					
Quantity	(000 KG)	0	0	1	0	951.7
Value	(\$000)	4	18	22	22	136.8
Other	•					
Quantity	(000 KG)	140	276	-	1 753	97.3
Value	(\$000)	8	44	**	308	<u>-98.9</u>
TOTAL						
Quantity Value	(000 KG) (\$000)	323 855 37 304	269 229 22 876	248 880 22 544	225 797 22 910	-12.3 -22.3

Canada ranked 1st overall.

See note on page two concerning Canada-U.S. Reconciliation.

Source: U.S. Department of Commerce.

NOTES : Ranked in descending order by 1992 value.

 $<sup>\</sup>mbox{\ensuremath{\star}}$  The latest year is cumulative to the third quarter.

<sup>\*\*</sup> Less than \$500.

## **UNITED STATES IMPORTS (Cont'd)**

## BY CUSTOMS DISTRICT OF ENTRY

CHLORINE (H.S. 2801.10.00.00)

Customs District of Entry	د	<u>1990</u>		<u>1991</u>		<u>1992</u>		<u>1993</u> *	Average Annual Growth Rate 1990-92 (%)
Detroit, Michigan	110	011	0.1	170	100	067		000	0.7
Quantity (000 KG)		011		178		067		823	-2.7
Value (\$000)	12	586	/	575	9	533	/	470	-13.0
Ogdensburg, New York				•••					
Quantity (000 KG)		890		248		377		096	18.1
Value (\$000)	4	819	5	165	4	212	5	450	-6.5
St. Albans, Vermont									
Quantity (000 KG)		212		824		265		428	-16.3
Value (\$000)	6	107	4	252	3	446	2	926	-24.9
Buffalo, New York									
Quantity (000 KG)		646	25	298	27	187	15	783	-2.6
Value (\$000)	3	121	2	734	3	160	1	839	0.6
Portland, Maine									
Quantity (000 KG)	4	651	3	548		853	2	945	66.2
Value (\$000)		729		418	1	131		378	24.5
Duluth, Minnesota									
Quantity (000 KG)	9	353	5	497	5	040	4	485	-26.6
Value (\$000)	1	327		839		534		733	-36.5
Baltimore, Maryland									
Quantity (000 KG)		-		<b>-</b> .	1	443		12	0.0
Value (\$000)		-		-		228		253	0.0
Houston-Galveston, Texas									
Quantity (000 KG)		-		_		326		-	0.0
Value (\$000)		-		_		90		-	0.0
Norfolk, Virginia									
Quantity (000 KG)		_		_		1		0	0.0
Value (\$000)		_		_		72		24	0.0
Seattle, Washington									•••
Quantity (000 KG)	78	524	47	423		279	48	286	-94.0
Value (\$000)		332		603		61		435	-91.5
Other	Ŭ	002	•	000		0.1	·	100	51.0
Quantity (000 KG)		570	1	213		41	1	939	-73.3
Value (\$000)		282		291		78		403	-47.3
(ψοσο)		202		<u></u>			-	100	
TOTAL									
Quantity (000 KG)	323	855	269	229	248	880	225	797	-12.3
Value (\$000)		304		876		544		910	-22.3
ταιας (φοσο)	٥,	JJ7		5, 0		<b>∪</b> † †		510	

NOTES : Ranked in descending order by 1992 value.

Source: U.S. Department of Commerce.

 $<sup>\</sup>boldsymbol{\ast}$  The latest year is cumulative to the third quarter.

#### **TARIFFS**

#### **CANADIAN**

Canadian imports included in this report are dutiable under the following Canadian tariff item:

		Tari	<u>ff Treatment - 1</u>	993
		Most		
		Favoured	General	United
Tariff		Nation	Preferential	States
<u>Item</u>	Description of Goods	<u>Tariff</u>	Tariff	<u>Tariff</u>
			•	
2801.10.00	-Chlorine	Free	Free	Free

### TARIFF ARRANGEMENTS AND FOREIGN COUNTRIES OF EXPORT

Exporting countries as shown in this report which qualify for the Most Favoured Nation tariff treatment: Italy, United Kingdom, United States.

Enquiries concerning Canadian tariffs should be directed to the nearest Customs and Excise office or to:

Tariff Programs
Revenue Canada
Customs and Excise
Ottawa, Ontario
KIA OL5

Tel.: (613) 954-6919 Fax.: (613) 954-9646

#### TARIFFS (Cont'd)

#### **UNITED STATES**

United States imports included in this report are dutiable under the following U.S. tariff item:

		Rates of Duty - 1993		
Tariff <u>Item</u>	Description of Goods	General	2	
2810.10.00	Chlorine	Free	25%	

2 Notwithstanding any other provisions, the rates of duty shall apply to products, whether imported directly or indirectly, of the following countries and areas pursuant to section 401 of the Tariff Classification Act of 1962, to section 231 or 257(e)(2) of the Trade Expansion Act of 1962, to section 404(a) of the Trade Act of 1974 or to any other applicable section of law, or to action taken by the President thereunder:

Afghanistan
Albania
Bulgaria
Cuba
Czechoslovakia
Estonia

German Democratic Republic (former) Kampuchea Laos Latvia Lithuania

Mongolia North Korea Romania Union of Soviet Socialist Republics (former) Vietnam

#### FOREIGN COUNTRIES

Enquiries concerning tariffs and other government trade regulations in foreign countries should be directed to:

Info-Ex
Department of Foreign Affairs and International Trade
Ottawa, Ontario KIA OG2

Tel.: (613) 944-4000 or 1-800-267-8376

Fax.: (613) 996-9709

## dISTCovery - TECHNOLOGY LICENSING OPPORTUNITIES

**dISTCovery** is an Industry Canada service designed to create industry awareness of the world-wide supply of transferable technology available through licensing and joint ventures.

dISTCovery provides access to international data bases containing thousands of licensing offers for new products, processes and technologies originating from around the world.

dISTCovery introduces you to companies and organizations from around the world who are willing to licence the right to manufacture and sell their product or use their process or know-how in an agreed market area. The reverse is also possible. A Canadian company can also use dISTCovery to promote their unique product or process for licensing internationally.

The following is a list of licensing opportunities identified from dISTCovery using the keyword "Chlorine".

- 1-Electrolytic Cell for Magnesium and Chlorine Production;
- 2-Electrocholorinator for Water Sterilisation.

For more information on these and other opportunities, contact the nearest Industry Canada Regional Office listed at the end of this publication or the Market Intelligence and Technology Opportunities Service at (613) 954-4040.



## FOR MORE INFORMATION PLEASE CONTACT:

Market Intelligence and Technology Opportunities Service Strategic Information Branch Industry Canada 235 Queen Street Ottawa. Ontario K1A 0H5

Tel.: (613) 954-4970 Fax.: (613) 954-2340 OR Chemicals Directorate Chemicals and Bio-Industries Branch Industry Canada

235 Queen Street Ottawa. Ontario K1A 0H5

Tel.: (613) 954-3073 Fax.: (613) 952-4209

#### **REGIONAL OFFICES:**

#### **NEWFOUNDLAND**

Industry Canada Suite 504 Atlantic Place 215 Water Street P.O. Box 8950 ST, JOHN'S, Newfoundland A1B 3R9 Tel.: (709) 772-4782 Fax: (709) 772-5093

#### PRINCE EDWARD ISLAND

Industry Canede Suite 400 National Bank Tower **Confederation Court Mall** 134 Kent Street P.O. Box 1115 CHARLOTTETOWN Prince Edward Island C1A 7M8 Tel.: (902) 566-7400 Fax: (902) 566-7450

#### **NOVA SCOTIA**

Industry Canada 5th Floor Central Guaranty Trust Tower 1801 Hollis Street P.O. Box 940, Station M HALIFAX, Nova Scotia B3J 2V9 Tel.: (902) 426-4782 Fax: (902) 428-2824

#### **NEW BRUNSWICK**

Industry Canada 12th Floor Assumption Place 770 Main Street P.O. Box 1210 MONCTON, New Brunswick E1C 8P9 Tel.: (506) 857-4782

Fax: (508) 851-2384

#### QUEBEC

Industry Canada **Suite 3800** 800 Tour de la Victoria Place P.O. Box 247 MONTREAL, Quebec H4Z 1E8 Tel.: (514) 283-8185 or 1-800-361-5367 Fax: (514) 283-3302

#### **ONTARIO**

Industry Canada 4th Floor **Dominion Public Building** 1 Front Street West TORONTO, Ontario M5J 1A4 Tel.: (416) 973-4782 Fax: (416) 954-1385

#### MANITOBA

Industry Canada 8th Floor 330 Portage Avenue P.O. Box 981 WINNIPEG, Manitoba R3C 2V2 Tel.: (204) 983-4782 Fax: (204) 983-2187

#### **SASKATCHEWAN**

Industry Canada Suite 401 119 4th Avenue South SASKATOON, Saskatchewan S7K 5X2 Tel.: (306) 975-4682 Fax: (306) 975-5334

BRITISH COLUMBIA Industry Canada Suite 900 Scotia Tower 650 West Georgia Street P.O. Box 11610 VANCOUVER, British Columbia V6B 5H8 Tel.: (604) 666-0266

Fax: (604) 666-0277

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#### **ALBERTA**

Industry Canada Room 540 Canada Place 9700 Jasper Avenue EDMONTON, Alberta T5J 4C3 Tel.: (403) 495-4782 Fax: (403) 495-4507

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