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MARKET INTELLIGENCE

**ELECTRICAL CAPACITORS,
FIXED, ALUMINUM
ELECTROLYTIC**

Pub. No.: 92010-IP

April 1992



Canada



ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

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REFERENCE SOURCES

Industry, Science and Technology Canada
Statistics Canada, Tel.: (613) 951-9647
Revenue Canada, Tel.: (613) 954-7020
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

Figures may not add due to rounding.

Canada - U.S. Exchange Rate

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

Canada - U.S. Reconciliation

Prior to 1989, United States commodity coding was based on the Tariff Schedule of the United States (TSUSA) and comparable data are not available. Starting in January 1989, the Harmonized Commodity Description and Coding System (H.S.) was adopted by the United States. However, Canada and the United States have been exchanging import data only since January 1990 and therefore there may be discrepancies in 1989 between Canadian exports to the United States and United States imports from Canada. 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 minimal resulting from exchange rates.

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ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

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:

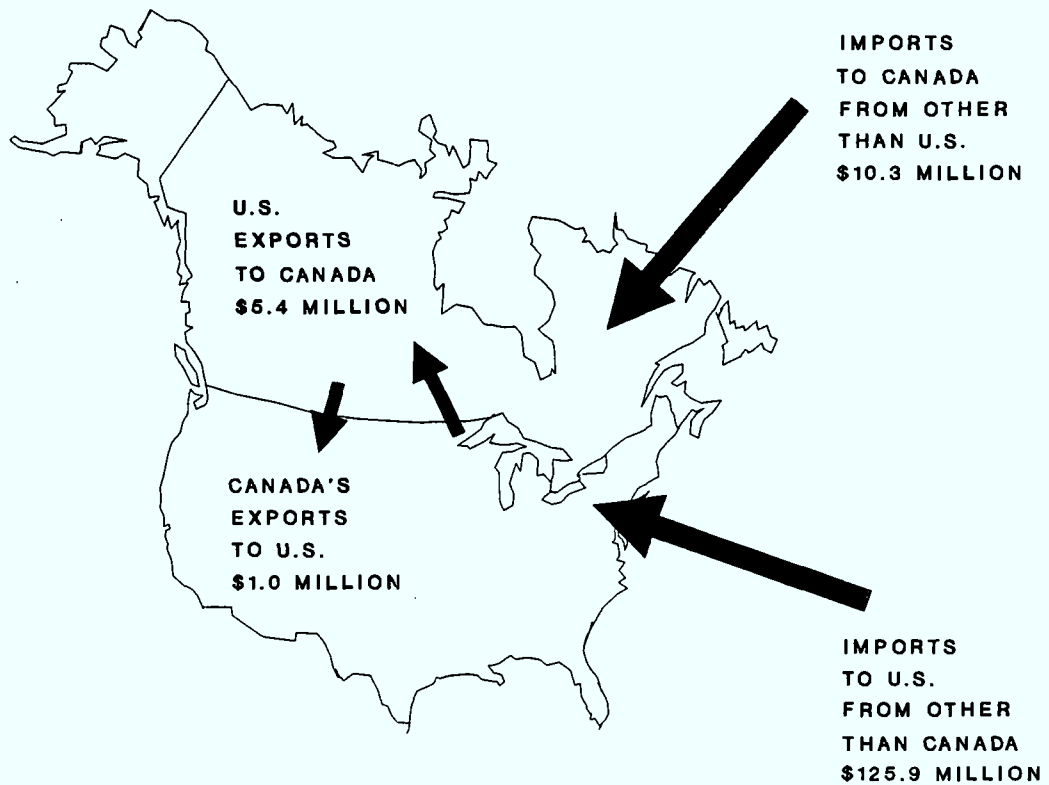
<u>Description</u>	<u>H.S. Commodity Code Analyzed</u>
Electrical capacitors, fixed, aluminum electrolytic	8532.22.00.00

Note: Information concerning U.S. import data show quantity in number of units. Canadian statistical data do not indicate quantity.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

NORTH AMERICAN IMPORTS - 1991

(H.S. 8532.22.00.00)



North American Imports - \$136.2 Million*

* Excludes Canada - U.S. bilateral trade and Mexico

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN IMPORT TRENDS

BY MAJOR COUNTRY OF ORIGIN

<u>Country of Origin</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>Average Annual Growth Rate 1988-91 (%)</u>
Japan					
Value (\$000)	6 174	8 921	9 750	8 232	10.1
United States					
Value (\$000)	7 185	6 852	5 068	5 407	-9.0
Republic of Korea					
Value (\$000)	1 367	1 214	893	559	-25.8
Taiwan					
Value (\$000)	2 130	765	428	466	-39.8
Belgium					
Value (\$000)	449	61	121	275	-15.1
Brazil					
Value (\$000)	155	287	231	198	8.5
Austria					
Value (\$000)	217	324	218	145	-12.4
Netherlands					
Value (\$000)	474	334	241	101	-40.3
Fed. Rep. of Germany					
Value (\$000)	85	96	57	92	2.5
Mexico					
Value (\$000)	-	15	14	68	110.8
Other					
Value (\$000)	<u>101</u>	<u>149</u>	<u>155</u>	<u>172</u>	<u>19.3</u>
Total					
Value (\$000)	18 338	19 018	17 176	15 715	-5.0

Ranked in descending order by 1991 value.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN IMPORT TRENDS (Cont'd)

MARKET SHARES BY MAJOR COUNTRY OF ORIGIN

<u>Country of Origin</u>	<u>1988</u> %	<u>1989</u> %	<u>1990</u> %	<u>1991</u> %
Japan				
Value	33.7	46.9	56.8	52.4
United States				
Value	39.2	36.0	29.5	34.4
Republic of Korea				
Value	7.5	6.4	5.2	3.6
Taiwan				
Value	11.6	4.0	2.5	3.0
Belgium				
Value	2.5	0.3	0.7	1.8
Brazil				
Value	0.8	1.5	1.3	1.3
Austria				
Value	1.2	1.7	1.3	0.9
Netherlands				
Value	2.6	1.8	1.4	0.6
Fed. Rep. of Germany				
Value	0.5	0.5	0.3	0.6
Mexico				
Value	-	0.1	0.1	0.4
Other				
Value	<u>0.6</u>	<u>0.8</u>	<u>0.9</u>	<u>1.1</u>
Total				
Value	100.0	100.0	100.0	100.0

Ranked in descending order by 1991 value.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN IMPORT TRENDS (Cont'd)

BY PROVINCE OF CLEARANCE

<u>Province of Clearance</u>		<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>Average Annual Growth Rate 1988-91 (%)</u>
Ontario						
Value	(\$000)	15 511	15 874	14 467	12 124	-7.9
Alberta						
Value	(\$000)	517	912	1 064	1 616	46.3
Québec						
Value	(\$000)	910	1 254	881	1 244	11.0
British Columbia						
Value	(\$000)	980	865	576	568	-16.6
Manitoba						
Value	(\$000)	379	96	138	90	-38.0
New Brunswick						
Value	(\$000)	38	-	37	71	23.0
Nova Scotia						
Value	(\$000)	3	4	12	0	-57.0
Saskatchewan						
Value	(\$000)	-	14	-	-	0.0
Total						
Value	(\$000)	18 338	19 018	17 176	15 715	-5.0

Ranked in descending order by 1991 value.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN IMPORT TRENDS (Cont'd)

MARKET SHARES BY PROVINCE OF CLEARANCE

<u>Province of Clearance</u>	<u>1988</u> %	<u>1989</u> %	<u>1990</u> %	<u>1991</u> %
Ontario				
Value	84.6	83.5	84.2	77.1
Alberta				
Value	2.8	4.8	6.2	10.3
Québec				
Value	5.0	6.6	5.1	7.9
British Columbia				
Value	5.3	4.5	3.4	3.6
Manitoba				
Value	2.1	0.5	0.8	0.6
New Brunswick				
Value	0.2	-	0.2	0.5
Nova Scotia				
Value	0.0	0.0	0.1	0.0
Saskatchewan				
Value	-	0.1	-	-
Total				
Value	100.0	100.0	100.0	100.0

Ranked in descending order by 1991 value.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN IMPORTERS

There were 197 known importers in 1990. The principal ten importers accounted for 73 per cent of the total import value.

<u>Principal Importers</u> (No.)	<u>Cumulative Value</u> (\$000)	<u>Cumulative % of Total Value</u>
3	7 140	42
6	10 587	62
10	12 484	73
15	14 033	82
25	15 328	89
All Importers (197)	17 176	100

The principal importers during 1990 are listed below in alphabetical order. This list does not include individuals. The importer is not necessarily the end-user of the product.

<u>Name</u>	<u>Location</u>	<u>Name</u>	<u>Location</u>
A C Simmonds & Sons Ltd.	Pickering, Ont.	Murata Erie North America Ltd.	Trenton, Ont.
Baknor Industries Inc.	Mississauga, Ont.	Northern Telecom Ltd.	Etobicoke, Ont.
Canadian Marconi Company Ltd.	Mont-Royal, Qué.	Novatel Communications Ltd.	Calgary, Alta.
Electro Sonic Inc.	Willowdale, Ont.	Philips Electronics Ltd.	Scarborough, Ont.
Fedders Corporation	Orangeville, Ont.	Rockwell International of Canada Ltd.	Toronto, Ont.
Ford Electronics Mfg. Corp.	Markham, Ont.	S-P International Ltd.	Burnaby, B.C.
Ford Motor Company of Canada Ltd.	Oakville, Ont.	Siemens Electric Limited	Mississauga, Ont.
Future Electronics Inc.	Pointe-Claire-Dorval, Qué.	Stetron International Inc.	Markham, Ont.
Hamilton-Avnet International Ltd.	Mississauga, Ont.	Tectrol Inc.	Downsview, Ont.
I B M Canada Ltd.	Markham, Ont.	United Chemi-Con Inc.	Rosemont, IL, U.S.*
ITT Industries of Canada Ltd.	Toronto, Ont.	Xerox Canada Inc.	Willowdale, Ont.
Mitel Corporation	Kanata, Ont.	Zentronics Div. of Westburne Industrial Enterprises Ltd.	Mississauga, Ont.
Moteurs Leroy-Somer Canada Ltée	Granby, Qué.		

* Non resident importer.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

FOREIGN EXPORTERS TO CANADA

Major exporters to Canada are listed in descending order of dollar value. These exporters accounted for 74 per cent of the total value of Canadian imports during 1990.

<u>Country of Origin</u>	<u>Name of Foreign Exporter</u>	<u>1990 Value of Exports to Canada (\$000)</u>
Japan	United Chemi-Con Inc.	3 356
	Nippon Chemi-Con)	
	Nichicon Corp.)	3 563*
United States	Cornell Dubilier/Sangamo	568
	Hamilton Avnet Electronic)	
	Aerovox Mallory Inc.)	916*
Korea, South	Phillips Korea)	
United States	United Chemi-Con Inc.)	576*
	Phillips Components	261
Korea, South	Samhwa Electric)	
United States	Sprague Electric Co.)	498*
Korea, South	Hosoda Trading Co. Ltd.)	
Taiwan	Kaylu Industrial Corp.)	645*
Netherlands	Phillips Export BV)	
Japan	Future Electronics Corp.)	
United States	TDK Corp. of America)	516*
Japan	Fuji Xerox Corp.)	
Austria	Phillips Austria)	
United States	Nichicon America Corp.)	306*
	Littlefuse Inc.	138
Brazil	Icotron S/A)	
Japan	Elna America Inc.)	269*
United States	Future Electronic Corp.)	
Japan	Hosoda Trading Co.)	376*
United States	IBM Poughkeepsie)	

* Aggregated to preserve confidentiality of Canadian importers.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

FOREIGN EXPORTERS TO CANADA (Cont'd)

<u>Country of Origin</u>	<u>Name of Foreign Exporter</u>	<u>1990 Value of Exports to Canada</u> (\$000)
Belgium	Phillips Belgium)	
Japan	NEC Electronic Inc.)	349*
	South Bend Plastics Inc.)	
United States	Rockwell Int.)	
Japan	Molex Inc.)	321*
	Serigraph Sales & Mfg.)	
TOTAL		12 658

* Aggregated to preserve confidentiality of Canadian importers.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN SHIPMENTS

Separate shipments data for electrical capacitors, fixed, aluminum electrolytic H.S. 8532.22.00.00 are not available. However, Statistics Canada reports that shipments of electrical capacitors for 1988 (latest year available) by Canadian manufacturers are as follows:

<u>Standard Classification of Goods</u> <u>Code Description</u>	<u>1988</u>	
	<u>Establishments</u>	<u>Value</u> (\$000,000)
Electrical capacitors, fixed, variable or adjustable (pre-set) 85.32	6	29.4

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

Statistics Canada
Industry Division
Survey of Manufactures Section
Ottawa, Ontario
K1A 0T6
Tel.: (613) 951-3526

Source: Catalogue #43-250, annual, "Electrical and Electronic Products Industries".

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC
CANADIAN EXPORTS BY MAJOR COUNTRY OF DESTINATION
(H.S. 8532.00)

<u>1989</u>		<u>1990</u>		<u>1991</u>	
<u>Country</u>	<u>Value</u> (\$000)	<u>Country</u>	<u>Value</u> (\$000)	<u>Country</u>	<u>Value</u> (\$000)
U.S.	2 541	U.S.	951	U.S.	1 064
France	42	Singapore	30	China	37
Netherlands Antilles	19	W.Germany	22	Italy	15
Singapore	19	Argentina	12	France	10
Argentina	15	U.K.	11	Hong Kong	6
Mexico	13	France	9	India	3
U.K.	7	Israel	4	Malaysia	1
Austria	3	China	2	Cuba	0
W.Germany	1	Ireland	1	Netherlands	0
S. Arabia	0	Italy	0	U.K.	0
Other	<u>0</u>	Other	<u>0</u>	Other	<u>0</u>
Total	2 659		1 043		1 139

NOTES: Major countries in descending order based upon value.
See note on page two concerning Canada - U.S. Reconciliation.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN SUPPLIERS

The following lists are taken from two sources: a) the Business Opportunities Sourcing System (BOSS), a computerized data bank established by the Federal Department of Industry, Science and Technology 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.

BOSS

Companies are arranged in alphabetical order.

Capacitors, Electrolytic

<u>Name</u>	<u>Location</u>
*Baknor Industries Inc.	Mississauga, Ont.
*Mallory Components Div. Emhart Canada	Woodstock, Ont.
*Sprague Electric of Canada Ltd.	Toronto, Ont.

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

Business Opportunities Sourcing System
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario K1A 0H5
Tel.: (613) 954-5031
Telex: 053-4123
Fax.: (613) 954-1894

* Company engaged in export trade.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

CANADIAN SUPPLIERS (Cont'd)

CANADIAN TRADE INDEX

Companies are arranged in alphabetical order.

Capacitors, Fixed or Variable
(not necessarily the products described in this report)

<u>Name</u>	<u>Location</u>
*ABB (Asea Brown Boveri Inc.)	Pointe Claire, Qué.
*Aerovox Canada Inc.	Amherst, N.S.
*Baknor Industries Inc.	Mississauga, Ont.
Bouchard Electric Ltd.	Edmonton, Alta.
Electric Power Equipment Limited	Vancouver, B.C.
Gentec Inc.	Ste-Foy, Qué.
*Lionmount & Co. Ltd.	Toronto, Ont.
*Mallory Control - A Black & Decker Company	Woodstock, Ont.
Merlin Gerin (Canada) Ltd.	Boucherville, Qué.
Multi-Amp Canada Limited	Scarborough, Ont.
Murata Erie North America Ltd.	Trenton, Ont.
Power Survey and Equipment Ltd.	St. Laurent, Qué.
Quality Communication Products (1979) Ltd.	Morden, Man.
*Sprague Electric of Canada Limited	Toronto, Ont.
Synerco Systems for Energy Conservation Inc.	Granby, Qué.
TransCanada TransFormers Limited	Pickering, Ont.
*Willett Manufacturing Ltd.	Estevan, 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

* Company engaged in export trade.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

UNITED STATES IMPORTS

BY MAJOR COUNTRY OF ORIGIN

(H.S. 8532.22.00.00)

Imports into the United States for electrical capacitors, fixed, aluminum electrolytic are as follows:

<u>Country of Origin</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>Average Annual Growth Rate 1989-91 (%)</u>
Japan				
Quantity (000 000 No.)	1 073	1 248	1 269	8.8
Value (\$000)	103 652	102 775	109 427	2.7
Taiwan				
Quantity (000 000 No.)	319	205	140	-33.9
Value (\$000)	14 557	10 897	6 933	-31.0
Republic of Korea				
Quantity (000 000 No.)	112	117	75	-18.1
Value (\$000)	6 042	4 455	3 162	-27.7
Singapore				
Quantity (000 000 No.)	82	52	73	-5.3
Value (\$000)	2 618	1 773	2 628	0.2
Sweden				
Quantity (000 000 No.)	0	1	0	42.8
Value (\$000)	144	1 081	1 246	194.7
Canada				
Quantity (000 000 No.)	0	0	0	-26.0
Value (\$000)	1 416	951	1 050	-13.9
Malaysia				
Quantity (000 000 No.)	30	37	19	-20.0
Value (\$000)	858	1 176	647	-13.2
Philippines				
Quantity (000 000 No.)	8	7	9	4.1
Value (\$000)	434	387	439	0.5
France				
Quantity (000 000 No.)	2	0	1	-20.1
Value (\$000)	124	118	276	49.6
United Kingdom				
Quantity (000 000 No.)	4	0	1	-55.0
Value (\$000)	296	159	260	-6.2
Other				
Quantity (000 000 No.)	17	12	7	-38.1
Value (\$000)	<u>1 361</u>	<u>1 630</u>	<u>934</u>	<u>-17.1</u>
Total				
Quantity (000 000 No.)	1 646	1 678	1 593	-1.6
Value (\$000)	131 501	125 402	127 002	-1.7

NOTES: Ranked in descending order by 1991 value.
Canada ranked 6 overall.
Source: U.S. Department of Commerce.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

UNITED STATES IMPORTS (Cont'd)

MARKET SHARES BY MAJOR COUNTRY OF ORIGIN

(H.S. 8532.22.00.00)

<u>Country of Origin</u>	<u>1989</u> %	<u>1990</u> %	<u>1991</u> %
Japan			
Quantity	65.2	74.3	79.6
Value	78.8	82.0	86.2
Taiwan			
Quantity	19.4	12.2	8.8
Value	11.1	8.7	5.5
Republic of Korea			
Quantity	6.8	7.0	4.7
Value	4.6	3.6	2.5
Singapore			
Quantity	5.0	3.1	4.6
Value	2.0	1.4	2.1
Sweden			
Quantity	0.0	0.0	0.0
Value	0.1	0.9	1.0
Canada			
Quantity	0.0	0.0	0.0
Value	1.1	0.8	0.8
Malaysia			
Quantity	1.8	2.2	1.2
Value	0.7	0.9	0.5
Philippines			
Quantity	0.5	0.4	0.6
Value	0.3	0.3	0.3
France			
Quantity	0.1	0.0	0.1
Value	0.1	0.1	0.2
United Kingdom			
Quantity	0.2	0.0	0.0
Value	0.2	0.1	0.2
Other			
Quantity	1.0	0.7	0.4
Value	<u>1.0</u>	<u>1.3</u>	<u>0.7</u>
Total			
Quantity	100.0	100.0	100.0
Value	100.0	100.0	100.0

NOTES: Ranked in descending order by 1991 value.
Canada ranked 6 overall.
Source: U.S. Department of Commerce.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

UNITED STATES IMPORTS (Cont'd)

AVERAGE UNIT PRICES BY MAJOR COUNTRY OF ORIGIN

(H.S. 8532.22.00.00)

(\$ per unit)

<u>Country of Origin</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Japan	0.10	0.08	0.09
Taiwan	0.05	0.05	0.05
Republic of Korea	0.05	0.04	0.04
Singapore	0.03	0.03	0.04
Sweden	2.21	1.90	9.39
Canada	3.67	4.59	4.97
Malaysia	0.03	0.03	0.03
Philippines	0.05	0.06	0.05
France	0.08	0.53	0.26
United Kingdom	0.08	3.47	0.34
Other	<u>0.08</u>	<u>0.14</u>	<u>0.14</u>
All Countries	0.08	0.07	0.08

NOTES: Ranked in descending order by 1991 value.
Canada ranked 6 overall.
Source: U.S. Department of Commerce.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

UNITED STATES IMPORTS (Cont'd)

BY MAJOR CUSTOMS DISTRICT OF ENTRY

(H.S. 8532.22.00.00)

<u>Customs District of Entry</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>Average Annual Growth Rate 1989-91 (%)</u>
Chicago, Illinois				
Quantity (000 000 No.)	681	896	868	12.9
Value (\$000)	53 411	58 500	59 440	5.5
Los Angeles, California				
Quantity (000 000 No.)	629	474	429	-17.4
Value (\$000)	49 888	40 586	40 180	-10.3
Seattle, Washington				
Quantity (000 000 No.)	51	64	96	36.8
Value (\$000)	4 634	5 548	6 888	21.9
New York City, New York				
Quantity (000 000 No.)	61	55	54	-5.9
Value (\$000)	3 929	3 788	3 562	-4.8
Buffalo, New York				
Quantity (000 000 No.)	38	21	20	-27.2
Value (\$000)	4 866	2 205	3 168	-19.3
Boston, Massachusetts				
Quantity (000 000 No.)	45	60	39	-6.9
Value (\$000)	2 680	3 266	2 662	-0.3
New Orleans, Louisiana				
Quantity (000 000 No.)	61	47	33	-25.8
Value (\$000)	2 939	2 918	2 351	-10.6
Dallas-Fort Worth, Texas				
Quantity (000 000 No.)	3	5	6	38.6
Value (\$000)	496	1 555	1 816	91.4
San Diego, California				
Quantity (000 000 No.)	4	5	5	6.0
Value (\$000)	1 070	971	981	-4.2
Columbia-Snake				
Quantity (000 000 No.)	5	2	4	-11.4
Value (\$000)	1 318	668	847	-19.9
Other				
Quantity (000 000 No.)	68	48	40	-23.9
Value (\$000)	<u>6 271</u>	<u>5 399</u>	<u>5 108</u>	<u>-9.8</u>
Total				
Quantity (000 000 No.)	1 646	1 678	1 593	-1.6
Value (\$000)	131 501	125 402	127 002	-1.7

NOTES: Ranked in descending order by 1991 value.
Source: U.S. Department of Commerce.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

UNITED STATES IMPORTS (Cont'd)

MARKET SHARES BY MAJOR CUSTOMS DISTRICT OF ENTRY

(H.S. 8532.22.00.00)

<u>Customs District of Entry</u>	<u>1989</u> %	<u>1990</u> %	<u>1991</u> %
Chicago, Illinois			
Quantity	41.4	53.4	54.5
Value	40.6	46.6	46.8
Los Angeles, California			
Quantity	38.2	28.3	26.9
Value	37.9	32.4	31.6
Seattle, Washington			
Quantity	3.1	3.8	6.0
Value	3.5	4.4	5.4
New York City, New York			
Quantity	3.7	3.3	3.4
Value	3.0	3.0	2.8
Buffalo, New York			
Quantity	2.3	1.2	1.3
Value	3.7	1.8	2.5
Boston, Massachusetts			
Quantity	2.7	3.6	2.5
Value	2.0	2.6	2.1
New Orleans, Louisiana			
Quantity	3.7	2.8	2.1
Value	2.2	2.3	1.9
Dallas-Fort Worth, Texas			
Quantity	0.2	0.3	0.4
Value	0.4	1.2	1.4
San Diego, California			
Quantity	0.3	0.3	0.3
Value	0.8	0.8	0.8
Columbia-Snake			
Quantity	0.3	0.1	0.2
Value	1.0	0.5	0.7
Other			
Quantity	4.1	2.9	2.5
Value	<u>4.8</u>	<u>4.3</u>	<u>4.0</u>
Total			
Quantity	100.0	100.0	100.0
Value	100.0	100.0	100.0

NOTES: Ranked in descending order by 1991 value.
Source: U.S. Department of Commerce.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

UNITED STATES IMPORTS (Cont'd)

AVERAGE UNIT PRICES BY MAJOR CUSTOMS DISTRICT OF ENTRY

(H.S. 8532.22.00.00)

(\$ per unit)

<u>Customs District of Entry</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Chicago, Illinois	0.08	0.07	0.07
Los Angeles, California	0.08	0.09	0.09
Seattle, Washington	0.09	0.09	0.07
New York City, New York	0.06	0.07	0.07
Buffalo, New York	0.13	0.11	0.16
Boston, Massachusetts	0.06	0.05	0.07
New Orleans, Louisiana	0.05	0.06	0.07
Dallas-Fort Worth, Texas	0.16	0.33	0.31
San Diego, California	0.25	0.19	0.21
Columbia-Snake	0.27	0.27	0.22
Other	<u>0.09</u>	<u>0.11</u>	<u>0.13</u>
Total U.S.	0.08	0.07	0.08

NOTES: Ranked in descending order by 1991 value.
Source: U.S. Department of Commerce.

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

TARIFFS

CANADIAN

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

Tariff Item	Description of Goods	Tariff Treatment - 1992		
		Most Favoured Nation Tariff	General Preferential Tariff	United States Tariff
	Fixed capacitors			
8532.22.00	Aluminum electrolytic	10.2%	6.5%	Free

TARIFF ARRANGEMENTS AND FOREIGN COUNTRIES OF EXPORT

Exporting countries as shown in this report which qualify for the Most Favoured Nation tariff treatment: Japan, Taiwan, Belgium, Austria, Netherlands and Federal Republic of Germany.

Exporting countries as shown in this report which qualify for the Most Favoured Nation tariff treatment or General System of Preference tariff treatment (In order to qualify for the General System of Preference, a special certificate of origin is required.): Republic of Korea, Brazil and Mexico.

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
K1A 0L5
Tel.: (613) 954-7020
Fax.: (613) 954-2509

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

TARIFFS (Cont'd)

UNITED STATES

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

Tariff Item	Description of Goods	Rates of Duty - 1992		
		General	1	2
	Electrical capacitors, fixed, variable or adjustable (pre-set); parts thereof:			
8532.22.00	Aluminum electrolytic	10%	Free (B,CA,E,IL)	35%

1	Automotive Products Trade Act	B
	United States-Canada Free-Trade Agreement	CA
	Caribbean Basin Economic Recovery Act	E
	United States-Israel Free Trade Area	IL

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	German Democratic	Mongolia
Albania	Republic (former)	North Korea
Bulgaria	Kampuchea	Romania
Cuba	Laos	Union of Soviet Socialist
Czechoslovakia	Latvia	Republics (former)
Estonia	Lithuania	Vietnam

FOREIGN COUNTRIES

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

Info Export
External Affairs
Ottawa, Ontario
K1A 0G2
Tel.: (613) 993-6435 or 1-800-267-8376
Fax.: (613) 996-9709

ELECTRICAL CAPACITORS, FIXED, ALUMINUM ELECTROLYTIC

dISTCcovery - TECHNOLOGY LICENSING OPPORTUNITIES

dISTCcovery is an ISTC service designed to create industry awareness of the world-wide supply of transferable technology available through licensing and joint ventures.

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

dISTCcovery 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 **dISTCcovery** to promote their unique product or process for licensing internationally.

The following is a list of licensing opportunities identified from **dISTCcovery** using the keywords "capacitors*" and "aluminum (ium)".

- 1- Varistors-Capacitors
- 2- Response of a metal oxide/semiconductor field-effect transistor (MOSFET) to a cosmic ray
- 3- Low inductance capacitor for low temperatures
- 4- Welding of rapidly solidified aluminum base powder
- 5- Vacuum arc coatings and surface alloys
- 6- Small electric motor construction

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



dISTCcovery

YOUR WINDOW TO A WORLD OF BUSINESS OPPORTUNITIES
UNE FENÊTRE SUR DES PERSPECTIVES COMMERCIALES

FOR MORE INFORMATION PLEASE CONTACT:

Market Intelligence and Technology
Opportunities Service
Services to Business Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Tel.: (613) 954-4970
Fax.: (613) 954-5463

OR Telecommunications and Microelectronics Directorate
Information Technologies Industry Branch
Industry, Science and Technology Canada
235 Queen Street
Ottawa, Ontario
K1A 0H5
Tel.: (613) 954-3348
Fax.: (613) 954-1894

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These centres have been established at headquarters and in every regional office to provide clients with a gateway into the complete range of ISTC services, information products, programs and expertise.

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or 1-800-361-5367
Fax.: (514) 283-3302

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Fax.: (416) 973-8714

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1801 Hollis Street, 5th Floor
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Halifax, N.S. B3J 2V9
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NEW BRUNSWICK

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Fax.: (204) 983-2187

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Saskatoon, Sask.
S7K 5X2
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Fax.: (306) 975-5334

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Fax.: (604) 666-0277

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510-5th Street South West
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Fax.: (403) 292-4578

YUKON

ISTC
Suite 210
300 Main Street
Whitehorse, Y.T. Y1A 2B5
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NORTHWEST TERRITORIES

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P.O. Bag 6100
Yellowknife, N.W.T. X1A 2R3
Tel.: (403) 920-8568
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