



1) Peggy  
2) Bill F.



GOVERNOR'S OFFICE OF POLICY AND PLANNING

STATE OF NEW JERSEY

BRENDAN BYRNE

Governor

974.90  
E19  
1979g  
Copy 2 (temp non  
circ)

BACKGROUND INFORMATION FOR  
THE GOVERNOR'S MISSION  
TO SWITZERLAND

Office of Policy and Planning  
Office of the Governor  
State of New Jersey

Andrew Findeisen  
Economic Development Specialist  
February 14, 1979

## INTRODUCTION

This is the second report from the series "Governor's Investment Mission to Europe." The first report provided basic information for the German leg of the mission. This report covers Switzerland. As the reports were thought to be used separately for both countries, two sections of the German report, "New Jersey Outstanding Industries" and "Pollution Constraints in Locating in New Jersey", are included in this report. A section that covers U.S.-Swiss economic aspects is added to this report. There was no such corresponding section in the German report. The content is divided into six sections which provide discussion of the following key issues:

- the first section outlines the relationship between the U.S. and Swiss economies in light of Swiss investments in the U.S. ,
- the second section underscores the theme which may be the basic thrust of public relations in Switzerland, i. e. , "New Jersey - the place to be for Swiss investors",
- the third section provides some historical background of Swiss investors in New Jersey,
- the fourth section outlines the recent activities by Swiss investors in the U.S. ,
- the fifth section describes those New Jersey industries that historically perform outstandingly on a nationwide scale,
- the last section rates New Jersey industries according to pollution constraints.

In addition, Appendix 1 lists all present New Jersey-Swiss manufacturing investors, their products, number of employees, their location and their parent firms in Switzerland. Appendix 2 names all present New Jersey-Swiss nonmanufacturing firms with details as in Appendix 1. Appendix 3 names major (with over 100 employees) U.S.-Swiss investors with details as in Appendix 1. Appendix 4 lists Swiss banks and investment companies that are represented in the U.S. and their U.S. branches. Some Swiss investors may feel more confident if they can rely on Swiss banks in their dealings on the U.S. market. A Swiss bank may recognize their credit rating and business may be discussed in their native language. Appendix 5 provides a classified list of major Swiss firms, not necessarily established on the U.S. market, which are members of Swiss-American Chamber of Commerce, for industries that were screened out through this report as potentially interesting for New Jersey, and a list of 100 largest manufacturing firms of Switzerland in 1977. The lists are followed by an alphabetical list of these firms, with a name of a person to contact, address, phone and telex numbers. Appendix 6 provides short titles of the Standard Industrial Classification (SIC) code which is frequently referred to in the text of the report.

## 1. U.S. - SWISS ECONOMIC ASPECTS

The recent development of Swiss-American economic relations is overshadowed by the increased depreciation of the dollar compared to the Swiss franc. The exchange rate of the dollar, which was S. Fr 4.3 in 1970, averaged S. Fr 2.40 for 1977, and plunged to S. Fr 1.63 toward the end of January 1979. This is likely to have a braking effect on the growth of Swiss exports to the United States and an accelerating effect on Swiss investment in the United States.

Swiss exports to the U.S. increased between 1970 and 1977 by 41% in millions of S. Fr but de facto declined as the percent of total Swiss exports from 8.9% in 1970 to 6.8% in 1977. Had the 8.9% rate been kept through these years, Swiss exports to the U.S. would have amounted to 3882.4 million S. Fr by 1977. Actually it amounted to only 2768.4 million S. Fr - the difference between the two values equals to 1114 million S. Fr (\$675.1 million). The braking effect is probably one reason of the decline. Consequently, if Swiss manufacturers do not want to lose the U.S. market they would have to set up new production facilities in the United States through construction of new plants, acquisition of U.S. manufacturing plants or joint ventures with U.S. manufacturers.

The table on the next page shows the U.S. share of total Swiss exports by commodity groups. The groups with the strongest decline would be the most attracted to invest in the U.S. unless their decline was caused by other reasons, such as stiffer international competition (example: Swiss versus Japanese watches).

# U.S. SHARE OF TOTAL SWISS EXPORTS BY COMMODITY GROUPS

	1970 %	1975 %	1977 %
Metal Products, Machinery and Related Products	10.2	7.5	7.5
- Machinery, nonelectrical	8.5	7.5	8.6
- Electrical machinery	5.7	5.1	5.3
- Optical and precision engineering products	13.5	9.2	9.4
- Watches	19.6	13.0	12.7
- Precious metals and products	4.4	3.1	4.7
- Other metal products	7.4	6.0	5.5
Chemicals and Allied Products	5.3	4.8	4.7
Food, Beverage and Tobacco	8.5	6.6	7.7
Textile and Apparel	8.8	3.0	3.8
Art Objects and Antiques	27.9	20.0	25.9
Other Manufactured Goods	7.0	3.5	3.8
All Groups	8.9	6.4	6.8

The slight upturn between 1975 and 1977 may be explained by the difference in the inflation rate and price behavior between the two countries. In 1975, average GNP monthly inflation in Switzerland was running at an annual 6.7%, as high as in the U.S. In Switzerland, however, it dropped in 1976 to 1.7% annual rate and 1.3% in 1977, while the U.S. rate was 5.8% in 1976 and 6.5% in 1977. Therefore the prices for goods in Switzerland have remained stable since 1975. The consumer price index in Switzerland

was +3.4% in 1975, as compared to the previous year, +1.3% in 1976 and +1.1% in 1977. The consumer price index in the U.S. in corresponding years was +7.0%, +4.9% and +6.7%. The result was that the U.S. import price index (1975 = 100), even after adjustment for \$ - S.Fr exchange, rose 3.5% in 1977, compared to an increase in Swiss export prices of 1.0%. From these statistical averages, it can be deduced that Swiss products were more competitive in 1977 than in 1975 on the U.S. market, despite the depreciation of the dollar, due to the difference in the inflation rate between the two countries.

On the other hand, the U.S. export price index (1975 = 100) - adjusted for exchange - rose 0.9%, compared to an increase in Swiss import prices of only 0.4%. This means that the competitiveness of American goods did not improve between 1975 and 1977. The conclusion from the above is that the proper strategy for the U.S. is to attract Swiss investors to the U.S., as they will tend to be attracted in the long-run depreciation of the dollar, rather than emphasizing the export of American goods to Switzerland while the difference in inflation rates is so high. The 1978 data on inflation is similar to the two previous years. In Switzerland the annual average inflation rate was 0.8%, while in the U.S. it reached the two-digit figure.

## 2. NEW JERSEY - THE PLACE TO BE FOR SWISS INVESTORS

The history of Swiss investment in the U.S. begins at the end of the nineteenth century. "Switzerland General Insurance" opened an office in New York in 1872 and the company is still operating successfully today. According to the U.S. Department of Commerce statistics, Swiss investment in the U.S. multiplied some 6 1/2 times over the period 1950-1976, amounting to \$2.3 billion in 1976. That is 7.6% of the total foreign investment in the U.S. Switzerland occupies fourth place as a direct investor in the U.S. behind Canada, Netherlands and Great Britain.

According to the data gathered from the U.S. Department of Commerce and the Yearbook 1978/79 published by the Swiss-American Chamber of Commerce, as of 1978 there are 154 Swiss parent firms with investment in the United States. They formed 245 U.S. firms throughout the U.S. Out of 245, 129 (52.6%) are engaged in manufacturing or processing activities. (See the table on the next page.)

New Jersey is the state that is the most often selected by Swiss investors involved in manufacturing or processing activities. Over one-sixth (16.3%) of all U.S. - Swiss manufacturing firms are located in New Jersey. New Jersey is also the state with the highest number of firms with over 100 employees. This indicates that larger firms tend to choose New Jersey over other states. Nearly 62% of all Swiss manufacturing firms that located in New Jersey belong to that category while in New York, the second location choice, only 20%. With regard to employment by such firms, New Jersey has the highest number (16,775) - reaching 30% of total employment by such firms. New York is second and Ohio is third.



SWISS FIRMS IN THE U.S. (BY STATES)

State	U. S. Subsidiaries	Those in Manufacturing	Manufacturing Firms with Over 100 Employees	
			Number	Employment
New Jersey	31	21	13	16,775
New York	88	15	3	15,584
Illinois	17	10	3	3,840
California	17	9	3	850
Pennsylvania	11	4	3	1,154
Michigan	9	6	2	742
South Carolina	8	5	1	144
Massachusetts	7	4	1	100
North Carolina	6	6	1	300
Minnesota	6	4	4	7,682
Ohio	4	4	1	11,167
Texas	3	3	-	-
Virginia	3	3	-	-
Wisconsin	3	3	-	-
Alabama	3	3	-	-
Florida	2	2	-	-
Maryland	2	2	-	-
Other States	25	25	6	2,787
Total	245	129	41	61,125

Source - Yearbook 1978/79 - Swiss American Chamber of Commerce

- Foreign Direct Investors in the U.S., U.S. Department of Commerce, March 1976

If a specific area has a higher growth in some sectors or the share of a sector is higher than in other areas, this would indicate that the area has a special advantage over other areas. Apparently New Jersey is the area for foreign companies to locate in. As shown by the analyses of American-German and American-Swiss manufacturing firms, their locational preference in the U.S. is New Jersey. The above facts provide a very good argument for convincing Swiss industrialists who are about to decide to invest in the U.S. that New Jersey is the place to be.

### 3. SWISS INVESTORS BY INDUSTRY TYPE - HISTORICAL TENDENCIES

The previous section covered the locational tendencies of Swiss investors in the U.S. through various states without regard to their manufacturing profile. The aspect of which industries historically choose New Jersey over other states is covered in this section. Historical tendencies in choosing one state over another by some industries indicate that these industries have found a good climate for some reason in a particular state.

The table on the next page provides the percent distribution of locational preferences by Swiss industries through major groups (SIC 2-digit level) for New Jersey and New York and relates it to the percent distribution of industries that invested in the U.S. The New Jersey data show what the major Swiss industries are that chose New Jersey. It may be expected that these industries would be the most easy to attract to New Jersey. Therefore, an effort in Switzerland should be addressed to these associations or chosen large companies of this type (see Appendix 5).

The New York state data are provided under the assumption that similarities in economics and climate between both states as well as the location on the American continent from the European point of view allows us to assume that there is no great difference for a foreign firm to locate either in New Jersey or in New York. New Jersey has the capacity to attract the majority of firms that settled in New York had some additional incentives been provided.

The U.S. data are provided to identify the Swiss industries that invest in the U.S. Relating the U.S. list to the New Jersey list, industries that have shown interest in the U.S. market but did not locate in New Jersey can be screened out.

DISTRIBUTION OF SWISS INVESTORS BY MAJOR INDUSTRY GROUPS -  
NEW JERSEY, NEW YORK AND U.S.

SIC Code	Industry	N.J. Firms/ Plants		N.Y. Firms/ Plants		U.S. Firms/ Plants	
		Number	%	Number	%	Number	%
20	Food and Kindred Prds.	1	4.2	5	33.3	42	28.3
22	Textile Mills Prds.	-	-	-	-	-	-
24	Lumber and Wood Prds.	-	-	-	-	1	.7
25	Furniture and Fixtures	-	-	-	-	-	-
26	Paper and Allied Prds.	-	-	-	-	-	-
27	Printing and Publishing	-	-	-	-	2	1.4
28	Chems. and Allied Prds.	13	54.2	3	20.0	52	35.1
30	Rubber and Plastic Prds.	-	-	-	-	4	2.7
32	Stone, Clay, Glass Prds.	2	8.3	-	-	3	2.0
33	Primary Metal	-	-	-	-	1	.7
34	Fabricated Metal	1	4.2	1	6.7	4	2.7
35	Nonelectrical Machinery	5	20.8	3	20.0	20	13.5
36	Electrical Machinery	-	-	-	-	4	2.7
37	Transportation Equipment	-	-	-	-	2	1.4
38	Instruments	2	8.3	3	20.0	13	8.9
39	Misc. Mfg. Industries	-	-	-	-	-	-
	All Mfg. Industries	24	100.0	15	100.0	148	100.0

The majority, over 85.8%, of all the U.S. investment by Swiss firms is related to four major industry groups only (of a total of 16 major groups). These are: SIC 28 - Chemicals and Allied Products (35.1%), SIC 20 - Food (28.3%), SIC 35 - Machinery Nonelectrical and SIC 38 - Instruments. This indicates that these industries are the most effective investors on the U.S. market and possibly most of the effort should be directed to attract firms of these industries.

It should be noted that most of the U.S.-Swiss employment has been created by large Swiss corporations. The first five of these large corporations have established 24 U.S. companies with 99 plants and over 55,000 employees. They are as follows:

- Nestle Alimentana SA	7	U.S. subsidiaries,	40	plants -	24,020	employees
- Ciba-Geigy	5	"	"	34	"	11,810
- Hoffmann-La Roche	2	"	"	9	"	9,100
- Sandoz	7	"	"	9	"	5,470
- Schweizerische Aluminium	3	"	"	7	"	5,200

The majority of New Jersey investment by Swiss firms is related to three industry groups that correspond to the U.S. list with the exception of one group, SIC 20 - Food. For some reason, New Jersey did not attract Swiss investment in this area. A major Swiss investor in this group is Nestle Alimentana SA. Its employment is 24,000 - which is close to 30% of all the U.S.-Swiss firms' employment. Food industry is the main Swiss investor in the U.S. The majority of Swiss investment in New York state (33.3%) belongs to this group. This indicates that probably there is no special reason why New Jersey should not have more investment in this area. As Nestle is still very active

as an investor in the U.S. market, they should be addressed in Switzerland or at least their major competitors should be welcomed to New Jersey.

Of the four industries aside from Food especially Machinery and Instruments are those where our efforts should be directed to attract them to invest in New Jersey as they are of the non-pollutant type and need a fairly sophisticated work force and a well-established research and development base. The fourth industry group - Chemicals, also the main investor in the U.S., should be addressed in Switzerland but with some caution so as to not attract industries of a pollutant type (the list of pollutant and non-pollutant is provided in the sixth section of this report).

With regard to the historical tendencies as criteria to find industries with a high potential for investment in New Jersey, there follows a list of the four major industry groups that were chosen:

Durable

SIC 35 - Machinery - Nonelectrical

SIC 38 - Instruments and Related Products

Nondurable

SIC 20 - Food

SIC 28 - Chemicals and Allied Products

#### 4. U.S. ACTIVITIES BY SWISS INVESTORS IN 1978

Due to the recently changed relation between the Swiss and the U.S. economy, it may be expected that new tendencies have developed in Swiss investment in the U.S. Therefore, a separate analysis of last year's investment events is provided below.

A total of 26 different activities took place during 1978. These may be divided into eight major categories that are listed below, together with the total number representing the frequency with which each type of activity has occurred.

##### SWISS INVESTORS IN 1978 BY ACTIVITIES

Activity	Frequency	%	Comment
Acquisition	8	30.8	
New plant	4	15.4	
New subsidiary	3	11.5	
Joint venture	2	7.7	
Construction	2	7.7	One office bldg., one residential
New outlet	2	7.7	Distribution
Purchase	4	15.4	Two shpg. ctrs., one office bldg.
New office	1	3.8	
TOTAL	26	100.0	

From the above, it is possible to separate the recent approach of Swiss investors and accordingly, to set a policy as to how to convince Swiss firms to locate in New Jersey.

All activities are listed on the next two pages together with the name of the U.S. and Swiss company, its type of activity, the location of its headquarters and plant, and the type of industry it represents. From this, it is possible to distinguish the recent locational preferences in the U.S. and type of industries that are attracted under recently developed new conditions.

1978 ACTIVITIES BY SWISS INVESTORS (BY INDUSTRY)

Industry	U.S. Company	Swiss Parent Company	Activity	Location	
				Hq.	Plant
Instru- ments	Alos Micrographic Corp.	Alos AG	New plant	NY	NY
"	Trio Laboratories Inc.	Max A. Gross	Acquisition	NY	NY
"	CX Corporation	Ciba-Geigy AG	Acquisition	WA	WA
Elec. Mach.	Gould-Brown Boveri	BBC Brown, Boveri and Cie. AG	Joint venture	IL	IL
"	LFE's Control Systems Industries Div.	BBC Brown, Boveri and Cie. AG	Acquisition	CA	CA
"	Pacific Aerosystems Inc.	Aerosystems Electronics AG	New plant	CA	CA
Food	Euryza Foods	Euryza Holdings AG	New plant	TX	TX
"	Southern Packing Co.	Overseas Princeton Placements NV	Acquisition	MD	MD
Chemi- cals	Brown-Boveri-Recoma Inc.	BBC Brown, Boveri and Cie. AG	Joint venture	NJ	NJ
Primary Metals	General Cable's Power/ Control Operations	Societe Internationale Pirelli	Acquisition	NJ	AK
Metal Prods.	The Budd Company	Thyssen-Bornemisza Swiss Group	Acquisition	MI	PA
Mach.	Progressive Corporation	Franke Group	Acquisition	PA	PA
Other Mfg.	Graphic Ribbon Inc.	Graphic Ribbon	New plant	-	TN
Whole- sale	Aerospace Purchasing and Testing	Aerosystems Electronics AG	New subsidiary	CA	CA
"	Mikron U.S. Corp.	Mikron Holding Ltd.	New outlet	CT	CT
"	Aerolite Spe Corporation	Ciba-Geigy AG	Acquisition	KY	KY



Industry	U.S. Company	Swiss Parent Company	Activity	Location	
				Hq.	Plant
Whole-sale	EAO Switch Corporation	Elektro-Apparatebau Olten AG	New subsidiary	CT	CT
"	Braecker Company	Braecker AG	New outlet	PA	PA
Retail Mdse.	Gardisette USA Inc.	Gardisette Holding AG	New subsidiary	SC	SC
Real Estate	Finagest International	Finagest S.A.	New office	NY	NY
N.A.	Harlem-Foster Shopping Center	Unidentified Investors	Purchase/ shopping center	-	IL
N.A.	Plymouth Park Shopping Center	Unidentified Investors	Purchase/ shopping center	TX	TX
N.A.	Office Building	Zurich Insurance Company	Construction/ office building	IL	IL
N.A.	Richmond Tower Building	Erculiant Interbau Luzern AG	Purchase/ office building	TX	TX
Agr.	Farm	Amivest	Purchase/ farm	CA	CA
N.A.	Silverfield	Direzione Lavori	Construction/ residential	TX	TX

Of the 26 activities listed in the table, 50% are in the manufacturing sector and the balance are in the distribution and real estate sectors. Of the manufacturing activities, the majority (60%) were located in the Snowbelt states. This is the major difference between German and Swiss investors as most of the 1978 German activities concentrated in the Sunbelt states.

The locational preference of Swiss investors was much more favorable for New Jersey when compared with German investors' preference. New Jersey, New York and California were the only three states with two manufacturing investment activities represented in each state.

Acquisition is the most popular form of investment. It refers to a transaction in which title to stock or assets of the U.S. target enterprise is secured - 51% of ownership - by another enterprise. When such a transaction is made between two manufacturing enterprises it usually reflects "direct investment" - investment in an economic sense - as opposed to portfolio investments that are usually made by private or institutional investors. A new plant is the second most popular form of investment. It is a new operating facility, established in conjunction with an existing foreign-owned productive enterprise or as a completely new venture. A joint venture is the third form of direct investment - it describes a situation in which parties establish a new operation to which each contribute according to the provisions of the joint venture agreement.

The most active Swiss investor was BBC Brown, Boveri and Cie. AG with three investment activities reported in 1978. BBC is a corporation that could be compared to Westinghouse. BBC Brown, Boveri and Cie. AG had its headquarters in New York until 1968 at which time it relocated to North Brunswick, New Jersey. BBC is active in three

fields; power generation, distribution and utilization with products such as electrical machines, electronic components, telecommunications and measuring equipment. In New Jersey these industries are strongly represented. This is a strong indication that the BBC should be a prime target in an effort to acquire Swiss investments for New Jersey, especially since it is one of the largest Swiss firms in these fields. A list of other sizable Swiss firms, not necessarily established on the U.S. market, classified according to their major business activities that are of special interest for New Jersey, is provided in Appendix 5 of this report.

It should be noted that Instruments and Electrical Machinery were the most active industries in 1978, accounting for nearly 40% of all the Swiss investment in the manufacturing sector. Other durable industries that had not been very active before have shown an increased interest in the U.S. market. This may mean that recently developed new relations between the Swiss and the U.S. economy have shifted the investment interest more into durable industries from nondurable (Chemicals and Food) that were number one in previous years.

With regard to the investment activities of last year as a pattern to follow to acquire industries with a high potential for investment in New Jersey, below is a list of industry groups that were selected and a list of the most frequent way of investing:

Industries: - SIC 38 - Instruments

- SIC 36 - Electrical Machinery

- SIC 20 - Food

- Other durable industries

Investing pattern: - acquisition

- new plant

- joint venture

## 5. NEW JERSEY OUTSTANDING INDUSTRIES

One reason why New Jersey is the number one State for Swiss firms to invest in is that many industries that New Jersey is known for are similar to those that Switzerland is known for also. Provided below is the list of New Jersey industries that historically have proved to perform outstandingly in the State outperforming their national counterparts.

This list may serve to point out to Swiss industrialists, in the event that they consider investing in the U.S., that New Jersey would provide them a better chance if established in the State.

The list was prepared using the shift-share analysis to screen out industries that have a faster growth rate when compared to the nation and the location quotient analysis to pinpoint industries with a stronger share than the national average. Both measures reveal a comparative advantage in a local area. If a local area is growing faster or the share is higher than the national this indicates that the area has a special advantage over the rest of the nation.

### DURABLE GOODS

		<u>Higher Share</u>	<u>Faster Growth 75-77</u>
32	STONE, CLAY AND GLASS PRODUCTS	Yes	
322	Glass and Glassware	Yes	Yes
326	Pottery	Yes	Yes
33	PRIMARY METALS		
333,4	Nonferrous Metals	Yes	
335	Nonferrous rolling	Yes	

		<u>Higher Share</u>	<u>Faster Growth 75-77</u>
34	FABRICATED METALS	Yes	Yes
341	Metal Cans	Yes	
342	Cutlery, Hard Tools	Yes	
346	Forgings, Stampings		Yes
35	MACHINERY		Yes
359	Metalworking Machinery		Yes
355	Special Industrial Machinery	Yes	
356	General Industrial Machinery	Yes	Yes
358	Service Industry Machines	Yes	Yes
36	ELECTRICAL MACHINERY	Yes	
361	Distribution Equipment	Yes	
364	Lighting and Wiring	Yes	
366	Communication Equipment	Yes	Yes
367	Electronic Components	Yes	
37	TRANSPORTATION EQUIPMENT		
371	Motor Vehicles		Yes
38	INSTRUMENTS	Yes	
381	Engineering, Labs and Scientific	Yes	
382	Measuring and Controlling	Yes	Yes
384	Surgical, Medical and Dental	Yes	Yes
386	Photographic Equipment	Yes	

		<u>Higher Share</u>	<u>Faster Growth 75-77</u>
39	MISCELLANEOUS INDUSTRIES		Yes
391	Jewelry, Silverware	Yes	
394	Toys and Amusement	Yes	Yes
396	Costume Jewelry	Yes	Yes
NONDURABLE GOODS			
20	FOOD		
203	Preserved Food		Yes
208	Beverages		Yes
22	TEXTILE MILL PRODUCTS		
226	Textile Finishing	Yes	
23	APPAREL	Yes	Yes
231	Men's and Boy's Suits	Yes	Yes
233,6	Woman's Outerwear	Yes	
26	PAPER AND ALLIED PRODUCTS	Yes	
264	Converted Paper Products	Yes	
265	Paperboard Containers	Yes	
27	PRINTING AND PUBLISHING	Yes	Yes
271	Newspapers		Yes
273	Books		Yes
275	Commercial Printing		Yes

		<u>Higher Share</u>	<u>Faster Growth 75-77</u>
28	CHEMICALS	Yes	Yes
281	Industrial	Yes	Yes
282	Plastic Materials	Yes	
283	Drugs	Yes	Yes
284	Soap,	Yes	Yes
285	Paints	Yes	
29	PETROLEUM PRODUCTS	Yes	Yes
291	Petroleum Refining	Yes	Yes
30	RUBBER AND PLASTIC	Yes	Yes
307	Plastic Products	Yes	Yes
31	LEATHER PRODUCTS		Yes
317	Handbags and Personal Goods	Yes	Yes

## 6. POLLUTION CONSTRAINTS IN LOCATING IN NEW JERSEY

Provided below is the list of industries classified on a scale from 1 (best) to 10 (worst) with regard to the pollution problems they create in New Jersey. Such a list would vary between states. Highly industrial states, such as New Jersey, have a low acceptance margin for some pollutants (example - hydrocarbon) due to already existing high densities of that pollutant in the air. Industries that are classified on the scale from 8 to 10 are not very desirable, and should be avoided. An average pollutant, easy to control, is indicated by 5. Industries are listed in their SIC (Standard Industrial Classification) that classifies industries on the 2-, 3- and 4-digit level. When only 2-digit SIC is shown in the table and no 3- or 4-digit subindustries appear, it would mean that all subindustries have the same classification. On the other hand, when a different class is assigned to the 3- or 4-digit industry, it would mean that this particular industry has a different class. SIC code and titles are provided at the end of the report.

SIC	Title	Class
20	FOOD AND KINDRED PRODUCTS	-
201	Meat Products	6 - 7
2011	Meat Packing Plants	9
202	Dairy Products	1
203	Preserved Fruits and Vegetables	2 - 3
204	Grain Mill Products	5
205	Bakery Products	6
206	Sugar and Confectionary Products	5



SIC	Title	Class
207	Fats and Oil	6
208	Beverages	1
209	Miscellaneous Foods and Kindred Products	5
2091	Canned and Cured Seafoods	7
2092	Fresh and Frozen Package Fish	7
21	TOBACCO MANUFACTURES	1
22	TEXTILE MILL PRODUCTS	5
23	APPAREL	1
2385	Waterproof Outergarments	5
2386	Leather and Sheep Lined Clothing	6
24	LUMBER AND WOOD PRODUCTS	1
25	FURNITURE AND FIXTURES (if finish applied)	1 6
26	PAPER AND ALLIED PRODUCTS	5
27	PRINTING AND PUBLISHING	5
28	CHEMICALS AND ALLIED PRODUCTS	-
281	Industrial Inorganic Chemicals	5
282	Plastics Materials and Synthetics	6

SIC	Title	Class
283	Drugs	3
284	Soap, Cleaners and Toilet Goods	5
285	Paints and Allied Products	7
286	Industrial Organic Chemicals	8
287	Agricultural Chemicals	8
289	Miscellaneous Chemical Products	9
29	PETROLEUM AND COAL PRODUCTS	-
291	Petroleum Refining	8
295	Paving and Roofing Materials	6
299	Miscellaneous Petroleum and Coal Products	8
30	RUBBER AND MISCELLANEOUS PLASTICS PRODUCTS	5
31	LEATHER AND LEATHER PRODUCTS	2
311	Leather Tanning and Finishing	7
32	STONE, CLAY AND GLASS PRODUCTS	-
321	Flat Glass	3
322	Glass and Glassware, Processed or Blown	6
323	Products of Purchased Glass	1
324	Cement, Hydraulic	3
325	Structural Clay Products	2
326	Pottery and Related Products	1

SIC	Total	Class
327	Concrete, Gypsum and Plastic Products	3
328	Cast Stone and Stone Products	2
329	Miscellaneous Nonmetallic Mineral Products	2
3292	Asbestos Products	10
3296	Mineral Wool	6
33	PRIMARY METAL INDUSTRIES	-
331	Blast Furnace and Basic Steel Products	8
3313	Electrometallurgical Products	7
3315	Steel Wire and Related Products	7
332	Iron and Steel Foundries	7
333	Primary Nonferrous Metals	8
335	Nonferrous Rolling and Drawing	2
336	Nonferrous Foundries	5
339	Miscellaneous Primary Metal Products	2
34	FABRICATED METAL PRODUCTS	-
341	Metal Cans and Shipping Containers	8
342	Cutlery, Hand Tools and Hardware	3
343	Plumbing and Heating, Except Electric	2
344	Fabricated Structural Metal Products	2
345	Screw Machine Products, Bolts, Et cetera	2
346	Metal Forgings and Stampings	2
347	Metal Services	8

SIC	Total	Class
349	Miscellaneous Fabricated Metal Products	2
35	MACHINERY, EXCEPT ELECTRICAL	2
36	ELECTRIC AND ELECTRONIC EQUIPMENT	2
3612	Transformers	6 - 7
3645	Residential Lighting Fixtures	5
3646	Commercial Lighting Fixtures	5
367	Electronic Components and Accessories	3
369	Miscellaneous Electrical Equipment and Supplies	2
3691	Storage Batteries	5
37	TRANSPORTATION EQUIPMENT	2
371	Motor Vehicles and Equipment	4
38	INSTRUMENTS AND RELATED PRODUCTS	1
39	MISCELLANEOUS MANUFACTURING INDUSTRIES	1
3953	Marking Devices	3
3955	Carbon Paper and Inked Ribbons	5

**Appendix 1**  
**Manufacturing Swiss Companies in**  
**New Jersey and Their Swiss Parent**  
**Companies (By Employment)**

Hoffmann-La Roche Inc.  
340 Kingsland Road  
Nutley, New Jersey 07110  
(201) 235-5000

Robert B. Clark, President  
Employment 9100

Manufacture, pharmaceuticals and fine  
chemicals, diagnostics, bioelectronic  
devices, scientific information services

F. Hoffmann-La Roche and Co. AG  
Grenzacherstrasse 124  
4000 Basel

Sandoz Inc.  
59 Route No. 10  
East Hanover, New Jersey 07936  
(201) 386-1000

Albert Frey, President  
Employment 2700

Manufacture, chemicals, dyes, pharmaceuticals,  
pesticides

Sandoz AG  
Lichstrasse 35

Toms River Chemical Corporation  
Box 71  
Toms River, New Jersey  
(201) 349-5200

Dr. R. Curry, President  
Employment 1100

Manufacture, chemicals and dyes

Ciba-Geigy AG  
Klybeckstrasse 141  
4002 Basel

Airwick Industries, Inc.  
111 Commerce Road  
Carlstadt, New Jersey 07072  
(201) 933-8200

Frank W. Conkling, President  
Employment 860

Manufacture, odor counteractants and  
chemical specialties

Same as above

Givaudan Corporation  
100 Delawana Avenue  
Clifton, New Jersey 07014  
(201) 546-8000

Norman Greif, President  
Employment 800

Manufacture of aroma chemicals, fragrance  
and flavor compounds and other specialty  
chemicals for use in soaps and cleaning  
products, perfumes, cosmetics, toiletries,  
processed foodstuffs, beverages and  
tobacco

Givaudan S. A.  
Chemin du Canada  
1214 Vernier-Geneve

Nestle Company, Inc.  
61 Jerseyville Avenue  
Freehold, New Jersey 07728  
(201) 462-1300  
Robert Schuessler, Plant Manager  
Employment 480  
Chocolates and food products  
Additional facilities in Secaucus and Raritan Center under construction

Nestle S.A.  
1800 Vevey

Bobst Champlain Inc.  
146 Harrison Avenue  
Roseland, New Jersey 07068  
(201) 226-8000  
C. A. Lewis, President  
Employment 380  
Manufacture, electronic controls for graphic  
arts, printing and dye cutting equipment

J. Bobst and Fils S.A.  
50, route des Flumeaux  
1008 Prilly-Lausanne

Brown Boveri Corporation  
1460 Livingston Avenue  
North Brunswick, New Jersey 08902  
(201) 932-6000  
John C. Trackman, President  
Employment 325  
Imports, generators, transformers and heavy  
power equipment, some manufacturing

BBC Brown, Boveri and Cie., AG  
5401 Baden

Brown Boveri Power Equipment Inc.  
Subs. Brown Boveri Corporation  
North Brunswick, New Jersey  
1200 Willis Road  
Richmond, Virginia 23234  
(804) 271-1261  
Dan D. Smith, Vice President and  
General Manager  
Employment 42  
Industrial power equipment

Same as above

Lonza Inc.  
22-10 Route 208  
Fair Lawn, New Jersey 07410  
(201) 791-7500  
B. D. Allen, President  
Employment 300  
Manufacture, organic chemicals, PVC foams

Lonza AG  
Munchensteinerstrasse 38  
4002 Basel

New Jersey Steel and Structural Corporation  
North Crossman Road  
Sayreville, New Jersey 08872  
(201) 721-6600  
Lester Lee, President and Chairman  
Employment 250  
Steel reinforcing bars

Von Roll AG  
CH-4563 Gerlafingen

Firmenich Inc.  
Princeton Plainsboro Road  
Post Office Box 5880  
Princeton, New Jersey 08540  
(609) 452-1000  
Henri van Mameren, President  
Employment 200  
Manufacturers and creators of perfumery/  
flavor compounds and aromatic chemicals

Firmenich S.A.  
1, route des Jeunes  
Case postale 239  
1211 Geneve 8

Sika Chemical Corporation  
875 Valley Brook Avenue  
Lyndhurst, New Jersey 07071  
(201) 933-8800  
Peter Georgi, President  
Employment 150  
Manufacture, chemicals for the construction  
field

Sika Finanz AG  
Baarerstrasse 12  
6300 Zug

Mettler Instrument Corporation  
Hightstown-Princeton Road  
Hightstown, New Jersey 08520  
(609) 448-3000  
W. Wallace Lummis, President  
Employment 130  
Electronic weighing systems, analytical balances,  
thermo-analytical instruments, laboratory  
automation

Mettler Instrumente AG  
Im Langacher  
8606 Greifensee

Concast Inc.  
12 Mercedes Drive  
Montvale, New Jersey 07645  
(201) 573-7000  
H. Fastert, President  
Employment 80  
Industrial engineering

Concast AG  
Todistrasse 7  
8027 Zurich



D. Jay Products Inc.  
Subs. of Diethelm and Keller (USA) Ltd.  
Post Office Box 797  
55 Clifton Street  
Newark, New Jersey 07101  
(201) 243-6886  
Emil Gunthardt, President  
Employment 45  
Manufacturing of chenille for the arts and  
craft industry

Dietheim and Keller Holding AG  
Talstrasse 65  
8001 Zurich

Creations Aromatique  
300 Webro Road  
Parsippany, New Jersey 07054  
(201) 884-0200  
D. Mills, President  
Employment 25  
Flavors and fragrances

Creations Aromatique S. A.  
CH-1201 Geneva

Siegfried Chemicals, Inc.  
Subs. of Ganes Chemicals, Inc.  
Industrial Park Road  
Pennsville, New Jersey 08070  
(609) 678-3601  
W. Hill, Manager  
Employment 20  
Manufacturer of medicinal and other related  
chemicals

Siegfried AG  
4800 Zofingen

Gane's Chemical Works, Inc.  
611 Broad Street  
Carlstadt, New Jersey 07072  
(201) 438-3433  
Dr. Carl Engler, Vice President  
Medical chemicals

Same as above

Oetiker Inc.  
71-77 Okner Parkway  
Livingston, New Jersey 07039  
(201) 992-1920  
Miss Christa Siems, Treasurer  
Employment 16  
Manufacture, hose clamps and couplings

Hans Oetiker  
Metallwaren and Apparatefabrik  
Oberdorfstrasse 21  
8810 Horgen

Heuer Time and Electronics Corporation  
960 South Springfield Avenue  
Springfield, New Jersey 07081  
(201) 467-1890

R. von Gunten, Executive Vice President  
Employment 15

Wholesale, watches and precision time  
instruments, manufacturing electronic  
timing instruments

Heuer Leonidas S.A.  
18, rue Veresins  
2501 Bienne

97490 F-19 19799

**Appendix 2**  
**Nonmanufacturing Swiss Companies**  
**in New Jersey (in Alphabetical Order)**

Aeromatic Inc.  
198 Route 206 South  
Somerville, New Jersey 08876  
(201) 874-4870  
James Miskelly, Vice President  
Employment 4  
Sales and service of fluid bed equipment

Aeromatic AG  
Farnsburgerstrasse 6  
4132 MuttENZ

Bornhauser Industries Inc.  
262 East Main Street  
Rockaway Boro, New Jersey 07866  
(201) 625-2171  
Stanley A. Matistic, Executive Vice President  
Employment 3  
Import and export of textiles and metals

Bornhauser AG  
Seestrasse 247  
8038 Zurich

Cosa Corporation  
17 Phillips Parkway  
Montvale, New Jersey 07645  
(201) 391-0700  
Leonard R. Hones, Executive Vice President  
Employment 88  
Import, precision machinery and tools

UHAG Ubersee-Handel AG  
Utoquai 55  
8022 Zurich

Folex-Biotest-Schleussner, Inc.  
60 Commercial Avenue  
Moonachie, New Jersey 07074  
(201) 438-8930  
G. Buhlmann, Vice President  
Employment 3  
Sales film transparencies for copies for audio-  
visual purposes

Folex  
Dr. H. Schleussner AG  
Talstrasse 9  
8022 Zurich

Hayek Engineering Co., Inc.  
1435 Morris Avenue  
Union, New Jersey 07083  
(201) 964-9442  
U. Krahenbuhl, Vice President  
Employment 10  
Engineering and consulting services

Hayek Engineering AG  
Dreikonigstrasse 21  
8002 Zurich

Hermes Products Inc.  
1900 Lower Road  
Linden, New Jersey 07036  
(201) 381-5600  
Wholesale, office machines

Hermes Precisa International S.A.  
8, rue de Pecheurs  
1401 Yverdon

Ilford, Inc.  
70 Century Road  
Paramus, New Jersey 07652  
(201) 265-6000  
P. K. Krause, President  
Import and sales

Interal Commodities Ltd.  
86 Orchard Street  
Hackensack, New Jersey 07601  
(201) 342-7222  
Robert R. Cooper, President  
Employment 10  
Importers of chocolate and other food stuff

Lattoflex, Inc.  
285 Palisade Avenue  
Cliffside Park, New Jersey 07010  
(201) 945-4020  
Richard Erle, President  
Employment 3  
Sale of couches, mattresses and beds

Rudolph-Desco Company, Inc.  
Post Office Box 907  
580 Sylvan Avenue  
Englewood Cliffs, New Jersey 07632  
(201) 568-4920  
Hans Baumann, Vice President  
Employment 3  
Import and exports, textiles, scientific and  
technical equipment

Seewer Rondo Inc.  
127 Oak Street  
Wood-Ridge, New Jersey 07075  
(201) 933-9555  
Erich Frei, Vice President and  
General Manager  
Employment 15  
Wholesale bakery equipment

Spring Brothers Co. (Inc.)  
218 Little Falls Road  
Cedar Grove, New Jersey 07009  
(201) 239-4240  
Dan Bolle, Vice President  
Employment 8  
Wholesale, cookware

Ciba-Geigy S.A.  
Klaybeckstrasse (4)  
4002 Basel

Interfood S.A.  
Place St. Francois 14 Bet  
Beau-Sejour 1  
1002 Lausanne

Lattoflex-Degen  
CH-4415 Lausan

Desco von Schulthess Holding AG  
Brand schenkestrasse 2  
8039 Zurich

Seewer AG  
Heimiswilstrasse 42  
3400 Burgdorf

Gebruder Spring GmbH  
Im Riet  
8360 Eschlikon

Von Roll Inc.  
North Crossman Road  
Post Office Box 145  
Sayreville, New Jersey 08872  
(201) 721-6600  
Heinz Knoblauch, Vice President  
Employment 4  
Metal- and machine industry

Von Roll AG  
4563 Gerlafingen

**Appendix 3**  
**Major U.S.-Swiss Companies**  
**(By Employment)**

The Nestle Company, Inc.  
100 Bloomingdale Road  
White Plains, New York 10605  
(914) 682-6000  
D. E. Guerrant, President  
Employment 6752  
Chocolate, instant coffee and tea,  
instant soups and food specialties

Nestlé S.A.  
1800 Vevey

The Stouffer Corporation  
5750 Harper Road  
Solon, Ohio 44139  
(216) 248-0700  
James M. Biggar, President  
Employment 11167  
Restaurants, inns, frozen prepared foods

Same as above

Cain's Coffee Co., Inc.  
13131 Broadway Extension  
Oklahoma City, Oklahoma 73125  
(405) 751-7221  
J. R. Durland, President  
Employment 399  
Coffee, tea and spices

Same as above

Manhattan Coffee Co., Inc.  
301 South 8th Street  
St. Louis, Missouri 63102  
(314) 241-8660  
William Taylor, Vice President  
Coffee, tea

Same as above

Libby, McNeill and Libby (Inc.)  
200 South Michigan Avenue  
Chicago, Illinois 60604  
(312) 341-4102  
Douglas B. Wells, President  
Employment 3600  
Food canning and frozen foods

Same as above

Alcon Laboratories, Inc.  
6201 South Freeway  
Post Office Box 1959  
Fort Worth, Texas 76101  
(817) 293-0450  
Edgar H. Schollmeier, President and  
Chief Executive Officer  
Employment 2000  
Ophthalmic dermatological and hair care products

Same as above



Ciba-Geigy Corporation  
444 Saw Mill River Road  
Ardsley, New York 10502  
(914) 478-3131  
Dr. O. Sturzenegger, President  
Employment 8500  
Agricultural chemicals, plastics and  
additives, pharmaceuticals, dyestuffs

Ciba-Geigy AG  
Klybeckstrasse 141  
4002 Basel

CX Corporation  
1217 Second Avenue  
Seattle, Washington 98101  
(206) 223-3737  
L. Tall, President  
Employment 500  
Development and manufacture of equipment  
and systems for photofinishers in the U. S.  
and abroad

Same as above

Alza Corporation  
950 Page Mill Road  
Palo Alto, California 94304  
(415) 494-5000  
A. M. MacKinnon, President  
Employment 500  
Development of therapeutic systems for the  
continuous administration of drugs

Same as above

Chas. S. Tanner Company  
Donaldson Center  
1310 Barcelona Drive  
Post Office Box 6748  
Greenville, South Carolina 29606  
(803) 277-7080  
E. Blakely, President  
Employment 144  
Chemicals and dyes

Same as above

Hamblet and Hayes  
Colonial Road  
Salem, Massachusetts 01970  
(617) 745-3700  
E. A. Schlaginhaufen ad Int., President  
Employment 100  
Chemicals for leather industry

Same as above

Consolidated Aluminum Corporation  
11960 Westline Industrial Drive  
St. Louis, Missouri 63141  
(314) 878-6950  
E. G. Chaves, President  
Employment 5000  
Aluminum smelting, rolling, extrusion,  
consumer products

Schweizerische Aluminium AG  
Feldeggstrasse 4  
8034 Zurich

The Delmark Company, Inc.  
Highway 100 at West 23rd Street  
Minneapolis, Minnesota 55416  
(612) 925-2100  
H. Breuer, President  
Employment 240  
Special dietetic products

Sandoz AG  
Lichtstrasse 35  
4002 Basel

Northrup King Company  
1500 Jackson Street, N.E.  
Minneapolis, Minnesota 55413  
(612) 781-8011  
J. Massie, President  
Employment 2200  
Seed

Same as above

Ovaltine Products, Inc.  
One Ovaltine Court  
Villa Park, Illinois 60181  
(312) 832-4800  
Dr. P. Lansel, President  
Employment 240  
Dietetic products

Same as above

Duncan Electric Company, Inc.  
Lafayette, Indiana 47902  
(317) 742-1001  
W. H. Bottomley, President  
Employment 1100  
Electricity meters

LGZ Landis and Gyr Zug AG  
Gubelstrasse  
6301 Zug

Moore Systems, Inc.  
1212 Bordeaux Drive  
Sunnyvale, California 94086  
(408) 734-4020  
L. M. Dawson, President  
Employment 200  
Electronic supervisory control equipment

Same as above

Pluess-Staufer Industries Corporation  
61 Main Street  
Proctor, Vermont 05765  
(802) 459-3311  
Max André Schachenmann, Chairman  
Employment 646  
Calcium carbonates

Plüss-Staufer AG  
Baslerstrasse  
4665 Oftringen

Dundee Cement Company (Inc.)  
U.S. Route 23 and Day Road  
Box 122  
Dundee, Michigan  
(313) 529-2411  
Marc R. von Wyss, President  
Employment 612  
Portland cement

Holderbank Financière Glarus AG  
Hauptstrasse 44  
8750 Glarus

Spinnerin Yarn Company Inc.  
30 Wesley Street  
South Hackensack, New Jersey 07606  
(201) 343-5900  
Hermann Ruegger, President  
Employment 600  
Handknitting yarns, industrial yarns

Spiho AG  
Bahnhofstrasse 3  
8001 Zurich

Contraves-Goerz Corporation  
610 Epsilon Drive  
Pittsburgh, Pennsylvania 15238  
(412) 782-7700  
James Colker, President  
Employment 538  
Manufacturing, sales and service

Oerlikon-Bührle Holding AG  
Postfach  
8021 Zurich

Progressive Corporation  
1301 Rhawn Street  
Philadelphia, Pennsylvania 19111  
(215) 742-2500  
Benjamin Brodsky, President  
Employment 316  
Commercial food equipment, refrigeration  
products, laminated plastic, stainless  
steel pipe

Franke Holding AG  
Dorfbachstrasse  
4663 Aarburg

Pneumafil Corporation  
2516 Wilkinson Boulevard  
Charlotte, North Carolina  
(704) 399-7441  
Jim Alexander, President  
Employment 300  
Textile and pneumatic recovery and conveying  
systems, metal cabinets, air systems

Luwa AG  
Anemonenstrasse 40  
8047 Zurich

Hamilton Watch Co., Inc.  
901 Columbia Avenue  
Lancaster, Pennsylvania 17604  
(717) 394-7161  
Robert Wiiken, President  
Employment 300  
Watches and clocks

SSIH  
Societe Suisse pour  
l'Industrie Horlogere  
Management Services SA  
96, rue Stampfli  
2500 Bienne 4

American Zettler, Inc.  
16881 Hale Avenue  
Irvine, California 92714  
(714) 540-4190  
Gunther Rueb, General Manager  
Employment 150  
Lightcall systems, relays, safety and security  
systems, fire alarm systems, automatic  
answering services

Zettler-Elektro-Apparate AG  
8752 Nafels

Ehv Weidmann Industries, Inc.  
Industrial Park  
Box 278  
St. Johnsbury, Vermont  
(802) 748-8106  
Gordon P. Mills, President  
Employment 140  
Insulating board and insulating parts

H. Weidmann AG  
Neue Jonastrasse  
8640 Rapperswil

Sutter Products Company  
Division of George Fischer  
Foundry Systems Inc.  
407 Hadley Street  
Holly, Michigan 48442  
(313) 634-8251  
A. Kafka, President  
Employment 130  
Foundry equipment

Georg Fischer Aktiengesellschaft  
Postfach  
8201 Schaffhausen

97490 E/9 19799

**Appendix 4**  
**Swiss Banks in the U.S. and**  
**Their U.S. Branches**

Credit Suisse  
100 Wall Street  
New York, New York 10005  
(212) 422-1450  
Peter Bosshard, Executive Vice President

Schweizerische Kreditanstalt  
Paradeplatz 8  
8021 Zurich

Swiss American Securities Inc.  
100 Wall Street  
New York, New York 10005  
(212) 344-4140  
G. J. Helwig, President  
Security brokers and dealers, investment  
company

Same as above

Union Bank of Switzerland  
New York Branch  
14 Wall Street  
New York, New York 10005  
(212) 791-8850  
H. R. Kuchler, Senior Vice President  
Commercial banking

Schweizerische Bankgesellschaft  
Bahnhofstrasse 45

Swiss Bank Corporation  
Four World Trade Center  
New York, New York 10048  
(212) 938-3500  
H. Baschnagel, Executive Vice President  
A. Togni, Executive Vice President  
P. G. Wodtke, Executive Vice President

Schweizerischer Bankverein  
Aeschenvorstadt 1  
4002 Basel

Swiss Center  
608 Fifth Avenue  
New York, New York 10020  
(212) 586-3420

Same as above

Basle Securities Corporation  
120 Broadway  
New York, New York 10005  
(212) 962-1900  
Claude N. Zwick, President  
Securities dealers and underwriters,  
investment company

Same as above

Baer American Banking Corporation  
489 Fifth Avenue  
New York, New York 10017  
(212) 949-8340  
Thomas O. Waage, President

Bank Julius Bar and Co., Ltd.  
Bahnhofstrasse 36  
8001 Zurich

Baer Securities Corporation  
330 Madison Avenue  
New York, New York 10017  
(212) 949-9055  
Hans R. Brechbühl, President  
Investment company

Same as above

#### Appendix 5

Swiss firms classified by their major business activities for industries that are of special interest for New Jersey:

- members of Swiss-American Chamber of Commerce
- the 100 largest industrial firms of Switzerland in 1977
- alphabetical list with addresses, a name of a person to contact, phone and telex number.
- Indicates addresses of firms that belong to the 100 largest firms.



Classified List

- 20      FOOD AND KINDRED PRODUCTS  
         Haco Ltd.  
         Nestlé S.A.  
         Wander Ltd.
- 28      CHEMICALS AND ALLIED PRODUCTS  
         Chemische Fabrik Uetikon  
         Ciba-Geigy Ltd.  
         F. Hoffmann-La Roche and Co. AG  
         Sandoz Ltd.  
         Viscosuisse S.A.  
         Pharmaton Ltd.  
         Wander Ltd.  
         Givaudan S.A.  
         Siegfried Ltd.  
         Plüss-Stauffer AG
- 33      PRIMARY METAL INDUSTRIES  
         Georg Fischer Ltd.  
         Sulzer Bros. Inc.  
         Swiss Aluminium Ltd.
- 34      FABRICATED METAL PRODUCTS  
         Hans Oetiker, Metallwaren- und Apparatefabrik  
         Otto Suhner Ltd.  
         Dr. Ing. Koenig AG Dietikon  
         Studer and Thomann AG
- 35      MACHINERY, EXCEPT ELECTRICAL
- 351     Engines and Turbines  
         Sulzer Bros. Inc.
- 352     Farm and Garden Machinery and Equipment  
         Hauser Champignonkulturen AG
- 353     Construction Machinery and Equipment  
         Besser AG  
         Schindler Management AG  
         Von Roll AG
- 354     Metalworking Machinery  
         Bruderer AG  
         Bühler Brothers Ltd.  
         Ebauches SA  
         Feintool AG Lyss  
         Georg Fischer Ltd.  
         Otto Suhner Ltd.

Classified List (Continued)

- 355     Special Industry Machinery
- 3552    Textile Machinery  
          Fritz Buser Ltd.  
          Graf and Co. Ltd.  
          G + W Maschinen AG  
          Heberlein Machine Works Ltd.  
          Maschinenfabrik Ruti AG  
          Schärer Textile Machine Works Ltd.  
          Sulzer Bros. Inc.
- 3554    Paper Industry Machinery  
          J. Bobst and Fils S.A.  
          Ferag AG
- 3555    Printing Trade Machinery  
          Joh. Gietz and Co.  
          Karl Müller AG  
          Ingenieurbureau Dr. Brehm AG  
          Fritz Buser Ltd.  
          Graf and Co. Ltd.
- 356     General Industrial Machinery  
          Ampack Ltd.  
          G + W Maschinen AG  
          Karl Müller AG  
          Hans Oetiker, Metallwaren- und Apparatfabrik  
          Safag Ltd.  
          Otto Suhner Ltd.  
          Von Roll AG
- 357     Office, Computing and Accounting Machines  
          Erhardt + Jost Electronic  
          Hermes Precisa International S.A.
- 358     Refrigeration and Service Industry Machines  
          Emhart Zurich S.A.  
          Sulzer Bros. Inc.
- 359     Miscellaneous Machinery  
          Fritz Buser Ltd.

Classified List (Continued)

- 36 ELECTRICAL AND ELECTRONIC MACHINERY
- 361 Electric Transmission and Distribution Equipment  
Stäfa Control System AG  
Weber AG
- 362 Electrical Industrial Apparatus  
BBC Brown, Boveri and Co. Ltd.  
LGZ Landis and Gyr Zug AG  
Zellweger Uster Ltd.
- 363 Household Appliances  
Tavaro S.A.
- 366 Communication Equipment  
Gretag AG  
Zellweger Uster Ltd.
- 367 Electronic Components and Accessories  
Erni and Co.  
Zellweger Uster Ltd.
- 37 TRANSPORTATION EQUIPMENT  
Pilatus Aircraft Ltd.  
BBC Brown, Boveri and Co. Ltd.  
Von Roll AG
- 38 MEASURING, ANALYZING AND CONTROLLING INSTRUMENTS  
AND RELATED PRODUCTS
- 381 Engineering, Laboratory, Scientific and Research Instruments  
and Equipment  
Balzers Limited for High Vacuum Technique and Thin Films  
Chemap AG  
Dr. W. Ingold Ltd.  
Merz and Dade AG  
Mettler Instrumente AG
- 382 Measuring and Controlling Instruments  
Camille Bauer Messinstrumente AG  
Gretag AG  
Dr. W. Ingold Ltd.  
Keithley Instruments S.A.  
LGZ Landis and Gyr Zug AG  
Mettler Instrumente AG  
Zellweger Uster Ltd.

Classified List (Continued)

- 384     Surgical, Medical and Dental Instruments and Supplies  
         Merz and Dade AG  
         Safag Ltd.  
         VFZ Verbandstoff-Fabrik Zurich AG
- 386     Photographic Equipment and Supplies  
         Gretag AG
- 387     Watches, Clocks  
         Ebauches S.A.  
         Longines Watch Co. Francillon Ltd.  
         SSIH (Société Suisse pour l'Industrie Horlogere)  
         Management Services S.A.  
         Zenith Time S.A.
- 39      MISCELLANEOUS MANUFACTURERS  
         Carfa AG  
         Reuge S.A.  
         Schlaeppli AG

THE 100 LARGEST MANUFACTURING ENTERPRISES OF SWITZERLAND IN 1977

	SIC 20	SIC 28	SIC 35	SIC 36	SIC 38	Other
1. Nestle	X					
2. Ciba-Geigy		X				
3. BBC Brown, Boveri				X	X	
4. Roche		X				
5. Alusuisse						Prim. Mtls.
6. Sandoz		X				
7. Sulzer			X			
8. Oerlikon-Burhle			X			
9. Jacobs	X					
10. Holderbank						Cement
11. Georges Fischer						Prim. Mtls.
12. ASUAG					X	Watches.
13. Schindler			X			
14. Interfood	X					
15. Landis and Gyr				X	X	
16. Buhler Brothers			X			
17. Von Roll			X			
18. Hilti		X				
19. Bell	X					
20. Pluss-Stauffer		X				
21. Groupe Unilever Suisse <sup>1</sup>	X					
22. SSIH					X	Watches
23. Siemens-Albis <sup>2</sup>				X	X	
24. Forbo						X
25. Losinger						Construction
26. Sprecher and Schuh				X	X	
27. Saurer			X			
28. Milchverband Winterthur	X					
29. Hasler				X	X	
30. Holzstoff						Paper
31. Viscosuisse <sup>3</sup>		X				
32. Hero	X					
33. Lindt and Sprungli	X					
34. Fabrique Suisse d'Isolants				X	X	
35. Cossonay				X		
36. SIG			X			
37. Luwa			X			
38. Zschokke						Construction
39. Bobst			X			
40. Ceramique Holding						Construction

	SIC 20	SIC 28	SIC 35	SIC 36	SIC 38	Other
41. Ringier						Paper
42. Rieter			X			
43. Schweizerhall		X				
44. Papeterie de Biberist						Paper
45. Groupe Knorr <sup>4</sup>	X					
46. Burrus						Tobacco
47. Heberlein			X			
48. Kunz	X					
49. Bucher-Guyer			X			
50. Wild					X	
51. Autophon				X	X	
52. Sika						Construction
53. Scintilla				X	X	
54. Sibra	X					
55. Unikeller						X
56. Hermes Precisa			X		X	
57. von Moos						X
58. Groupe Hiag						Wood
59. Charmilles			X			
60. STR <sup>5</sup>						
61. W. Bertschinger						Construction
62. Franke						Fab. Mtls.
63. Reichhold		X				
64. Maag			X			
65. Baumgartner Papiers						Paper
66. Tuileries Zurichoises						Construction
67. Zellweger Uster				X	X	
68. Stuag						Construction
69. Feldschlosschen	X					
70. Cellulose						Paper
71. Tages Anzeiger						Paper
72. Cremo	X					
73. Laiteries Reunies	X					
74. Cerberus				X	X	
75. Rinsoz and Ormond						Tobacco
76. Buss			X			
77. Roco	X					
78. Industrieholding Cham						Paper
79. Hoval			X			
80. Selve						Prim. Mtls.

	SIC 20	SIC 28	SIC 35	SIC 36	SIC 38	Other
81. Verbandsmolkerei Region Bern	X					
82. Gardisette						Textiles
83. Aluminium Menziken						Prim. Mtls.
84. Groupe Jean Frey						Printing
85. Vetropack						Glass
86. Mondaine Watch					X	Watches
87. Willi Studer				X	X	
88. Stoffel						Textiles
89. Geilinger						Construction
90. Siegfried		X				
91. Iril						Textiles
92. Weidmann						Construction
93. Huber and Suhner				X		
94. Gegauf			X			
95. Metallwaren-Holding				X		
96. Schmalz						Construction
97. Cableries de Brougg				X		
98. Papeterie de Perlen						Paper
99. Walter Meier Holding			X			
100. Arbonia-Forster						Fab. Mtl.
Total	16	9	19	16	17	

- 1 Parent Dutch - British
- 2 Parent German
- 3 Parent French
- 4 Parent USA - CPC from New Jersey
- 5 Parent USA - ITT

SIC 20 - Food  
 SIC 28 - Chemicals  
 SIC 35 - Nonelectrical Machinery  
 SIC 36 - Electrical Machinery  
 SIC 38 - Instruments

Alphabetical List

**AMPACK LTD.**

H. P. Karrer, Director  
Promenadenstrasse 94-96  
9400 Rorschach  
Tel. 071 / 41 29 33  
Telex: 77 224

**BALZERS LIMITED FOR HIGH VACUUM  
TECHNIQUE AND THIN FILMS**

Josef Sele, Assistant to Management  
FL-9496 Balzers  
Tel. 075 / 4 41 11  
Telex: 77 841

**CAMILLE BAUER MESSINSTRUMENTE AG**

H. Ronald Haverman, Regional Sales Manager  
Bahnhofweg 17  
5610 Wohlen  
Tel. 057 / 6 91 00  
Telex: 52 998

- **BBC BROWN, BOVERI AND CO. LTD.**  
Erwin Bielinski, Executive Vice President  
P. O. Box 85  
5401 Baden  
Tel. 056 / 75 11 11  
Telex: 52 921

**BESSER AG**

Luis A. Arias, Director  
Pilatusstr. 14  
6003 Lucerne  
Tel. 041 / 23 99 44/45  
Telex: 78 699

- **J. BOBST AND FILS S.A.**  
Raymond Heimberg, Finance Manager  
1001 Lausanne  
Tel. 021 / 25 01 01  
Telex: 24 82 1 bobs ch

**INGENIEURBUREAU DR. BREHM AG**

Hans Brehm, President  
P. O. Box 8027 Zurich  
Tel. 01 / 202 27 90  
Telex: 52 094

**BRUDERER AG**

Markus Bruderer, Director  
P. O. Box 9320 Arbon  
Tel. 071 / 46 57 57  
Telex: 77 353

- **BÜHLER BROTHERS LTD.**  
Dr. Silvio Giger, Deputy Manager  
Finance Department  
9240 Uzwil  
Tel. 073 / 50 11 11  
Telex: 77 541

**FRITZ BUSER LTD.**

Engineering Works  
Bernhard Schwarzmann, Sales Engineer  
3428 Wiler b. Utzenstorf  
Tel. 065 / 46 11 41  
Telex: 34 164

**CARFA AG**

Jean-Pierre Dreyfus, General Manager  
P. O. Box 8805 Richterswil  
Tel. 01 / 784 38 38  
Telex: 75 522 (effective April 1979: 875 522)

**CHEMAP AG**

Dr. Ing. H. Müller, President  
8708 Mannedorf  
Tel. 01 / 922 11 01  
Telex: 75 508

- **CIBA-GEIGY LTD.**

Dr. G. Staehelin, Chairman  
Pharmaceuticals Division  
Dr. R. Witschi, Deputy Manager  
Klybeckstrasse 141  
4002 Basle 7  
Tel. 061 / 36 11 11  
Telex: 62 991

**EBAUCHES S.A.**

P.-A. Tschudin, Vice President, Div. Mgr.  
P. O. Box 1157  
2001 Neuchatel  
Tel. 038 / 21 21 25  
Telex: 35 163



Alphabetical List (Continued)

EMHART ZURICH S.A.

Michel Cornaz, General Manager  
Seefeldstrasse 224, P.O. Box 98  
8034 Zurich  
Tel. 01 / 55 23 00  
Telex: 53 730

ERHARDT + JOST ELECTRONIC

P. Theodore K. Musallam, V.P., Engrg.  
Rossligasse 2  
4450 Sissach  
Tel. 061 / 98 30 30  
Telex: 64 937

ERNI AND CO.

Ernst R. Erni, President  
Stationsstrasse 31  
8306 Bruttisellen ZH  
Tel. 01 / 833 33 33  
Telex: 53 699

FEINTOOL AG LYSS

Fritz F. Boesch, Chairman  
Industriering 3  
3250 Lyss  
Tel. 032 / 84 72 72  
Telex: 34 30 1

FERAG AG

W. Reist, Director  
8340 Hinwil ZH  
Tel. 01 / 938 01 11  
Telex: 75 353

• GEORG FISCHER LTD.

R. Mayr, President  
Muhlentalstrasse  
8201 Schaffhausen  
Tel. 053 / 8 11 11  
Telex: 76 222 ghsh ch

• JEAN FREY AG

Dr. Beat Curti, Managing Director  
Staffelstrasse 12  
8021 Zurich  
Tel. 01 / 201 71 71  
Telex: 58 834

JOH. GIETZ AND COMPANY

Heinrich Gietz, Owner  
Bruttisellerstrasse 8  
8305 Dietlikon  
Tel. 01 / 833 01 33  
Telex: 53 861

GIVAUDAN S.A.

Laszio Unger, Manager  
Marketing Research Service  
1214 Vernier-Geneva  
Tel. 022 / 41 22 00  
Telex: 22 102

GRAF AND CO. LTD.

Ralph Graf, Senior Vice President, Production  
and member of the Executive Board  
P. O. Box 122  
8640 Rapperswil  
Tel. 055 / 27 46 55  
Telex: 75 523

GRETA AG

Karl Bernhard, Vice President  
Althardstr. 70  
8105 Regensdorf  
Tel. 01 / 842 11 11  
Telex: 53 950

G + W MASCHINEN AG

Emil S. Asfour, President  
Schulstr. 26  
8330 Pfaffikon  
Tel. 01 / 97 44 41/42  
Telex: 54 794

Alphabetical List (Continued)

HACO LTD.

Peter Krähenbühl, Export Manager  
3073 Gumligen  
Tel. 031 / 52 00 61  
Telex: 32 392

HAUSER CHAMPIGNONKULTUREN AG

U. Hauser, Managing Director  
8625 Gossau-Zurich  
Tel. 01 / 935 17 54  
Telex: 75 397

HEBERLEIN MACHINE WORKS LTD.

Dr. W. Känel, President  
9630 Wattwil  
Tel. 074 / 6 11 11  
Telex: 77 346

• HERMES PRECISA INTERNATIONAL S.A.

F. W. Meyer, President  
P. O. Box 1401 Yverdon  
Tel. 024 / 21 23 31  
Telex: 24 440

• F. HOFFMANN-LA ROCHE AND CO. AG

Dr. Raeto Schett, Director General  
Schaffhauser Rheinweg 125, P.O. Box  
4002 Basle  
Tel. 061 / 27 11 22  
Telex: 62 292

ROBERT HUERLIMANN BUCHDRUCK  
AND OFFSET AG

Robert Hürliemann, Managing Director  
Trittligasse 2  
8001 Zurich  
Tel. 01 / 32 48 55

DR. W. INGOLD LTD.

Dr. W. Ingold, President  
Industriezone Nord  
8902 Urdorf ZH  
Tel. 01 / 734 38 00  
Telex: 52 793

KEITHLEY INSTRUMENTS S.A.

W. Schenkel, Managing Director  
14, avenue Villardin  
P. O. Box 129  
1009 Pully  
Tel. 021 / 28 11 68  
Telex: 25 124

DR. ING. KOENIG AG DIETIKON

Dr. Hans M. Koenig, President  
P. O. Box 8953 Dietikon  
Tel. 01 / 740 26 61  
Telex: 52 630

• LGZ LANDIS AND GYR ZUG AG

P. Lusser, Corporate Vice President  
6301 Zug  
Tel. 042 / 24 11 24  
Telex: 78 777

LONGINES WATCH CO.

FRANCILLON LTD.  
Manfred Laumann, President  
2610 St.-Imier  
Tel. 039 / 42 11 11  
Telex: 35 287

MASCHINENFABRIK RÜTI AG

Dr. Walter G. Deucher, Member of the Board  
8630 Rüti ZH  
Tel. 055 / 33 21 21  
Telex: 75 580

MERZ AND DADE AG

Heinz Drescher, M.D., Managing Director  
P. O. Box 3186 Dürdlingen  
Tel. 037 / 43 91 11  
Telex: 36 621/36 620

METTLER INSTRUMENTE AG

Martin Huber, Director of Operations  
8606 Greifensee  
Tel. 01 / 87 63 11  
Telex: 54 592

Alphabetical List (Continued)

- KARL MÜLLER AG  
Walter Hanselmann, Representative  
9325 Roggwil TG  
Tel. 071 / 48 13 77  
Telex: 77 548
- NESTLÉ S.A.  
Gérard Gogniat, President and  
Managing Director of  
Nestlé World Trade Corporation  
1800 Vevey  
Tel. 021 / 51 01 11  
Telex: 24 656
- HANS OETIKER, METALLWAREN-  
UND APPARATEFABRIK  
Hans Oetiker, Owner  
Oberdorfstrasse 21  
8810 Horgen  
Tel. 01 / 725 55 55  
Telex: 52 361
- PHARMATON LTD.  
K. H. Rückert, Managing Director  
P. O. Box 145  
6903 Lugano  
Tel. 091 / 59 14 21  
Telex: 79 075
- PILATUS AIRCRAFT LTD.  
Dr. Karl Zimmermann, Deputy Manager  
6370 Stans  
Tel. 041 / 63 11 33  
Telex: 78 329
- PLÜSS-STAUFER AG  
G. A. Baumann, Managing Director  
Baslerstrasse  
4665 Oftringen  
Tel. 062 / 43 11 11  
Telex: 68 891
- PROJECTINA LTD.  
Carl H. Lang, Director  
P.O. Box 304  
9435 Heerbrugg  
Tel. 071 / 72 20 44  
Telex: 71 92 08 proj ch
- REUGE S.A.  
H. Barker Grimshaw, Export Manager  
1450 Sainte-Croix  
Tel. 024 / 62 11 41  
Telex: 24 258
- SAFAG LTD.  
Alfred Wüthrich, Sales Manager  
Gurzelenstrasse 31  
2500 Bienne  
Tel. 032 / 42 33 22  
Telex: 34 308
- SANDOZ LTD.  
J. Peter Christen, Member of the Executive  
Committee  
P. O. Box 4002 Basle  
Tel. 061 / 24 11 11  
Telex: 62 143
- SCHÄRER TEXTILE MACHINE WORKS LTD.  
Dr. Andreas Peter, Director  
8703 Erlenbach  
Tel. 01 / 9 10 62 82  
Telex: 53 104
- SCHINDLER MANAGEMENT AG  
J. G. Hartmann, Member of the Corporate  
Executive Committee  
6030 Ebikon  
Tel. 041 / 39 32 32  
Telex: 72 334

Alphabetical List (Continued)

- SCHLAEPPI AG  
Jacques Schläppi, Jr., Sales Manager  
P. O. Box 66  
8807 Freienbach  
Tel. 055 / 48 17 12  
Telex: 75 672
- SIEGFRIED LIMITED  
Dr. Bernard A. Siegfried  
Chief Executive Officer  
Untere Brühlstrasse  
4800 Zofingen  
Tel. 062 / 50 11 11  
Telex: 68 434
  - SSIH (SOCIÉTÉ SUISSE POUR  
L'INDUSTRIE HORLOGERE)  
MANAGEMENT SERVICES S.A.  
Stämpflistr. 96  
P. O. Box 6  
2500 Bienne 4  
Tel. 032/41 06 11  
Telex: 34 448
  - STÄFA CONTROL SYSTEM AG  
Rico M. Jenny, General Manager  
8712 Stafa  
Tel. 01/928 61 11  
Telex: 75 368
  - STUDER AND THOMANN AG  
Hermann Studer, Managing Director  
Webereistrasse 56-58  
8134 Adliswil  
Tel. 01 / 710 88 15
  - OTTO SUHNER LTD.  
Ulrich A. Rüttsch  
Director International Operations  
P. O. Box 199  
5200 Brugg  
Tel. 056 / 94 84 02  
Telex: 53 678
  - SULZER BROTHERS LTD.  
Dr. h.c. Max Steiner, Member of the  
enlarged Corporate Executive Management  
8401 Winterthur  
Tel. 052 / 81 11 22  
Telex: 76 165
  - SWISS ALUMINIUM LTD.  
Dr. D. Altenpohl, Vice President Technology  
Feldegstrasse 4  
8034 Zurich  
Tel. 01 / 34 90 90  
Telex: 52 487
  - TAVARO S.A.  
Dr. W. H. Vock, Chairman of the Board  
P. O. Box 1211 Geneva 13  
Tel. 022 / 45 88 31  
Telex: 22 309
  - VFZ VERBANDSTOFF-FABRICK ZURICH AG  
René Wettstein, Manager  
Seefeldstr. 153  
8034 Zurich  
Tel. 01 / 55 01 25
  - VISCOSUISSE S.A.  
6020 Emmenbrücke  
Tel. 041 / 50 51 51  
Telex: 78 484
  - VON ROLL AG  
Hans Schwengeler, Vice President  
Marketing and Sales  
4563 Gerlafingen  
Tel. 065 / 34 11 51  
Telex: 34 240
  - WANDER LTD.  
P. Wildbolz, Managing Director  
P. O. Box 2747  
3001 Berne  
Tel. 031 / 45 01 41  
Telex: 33 923

Alphabetical List (Continued)

WEBER AG

J. Matschi, Marketing International

Sedelstr. 2

6020 Emmenbrücke

Tel. 041 / 50 55 44

Telex: 78 323

• WILD HEERBRUGG LTD.

Jürg Kreis, Vice Director

9435 Heerbrugg

Tel. 071 / 70 31 31

Telex: 77 191

• ZELLWEGER USTER LTD.

Dr. K. Weber, Vice President

8610 Uster

Tel. 01 / 87 67 11

Telex: 53 587

ZENITH TIMES S.A.

Michael John Pannett, President and  
General Manager

34, rue des Billodes

2400 Le Locle

Tel. 039 / 34 11 55

Telex: 35 322

**Appendix 6**  
**Standard Industrial Classification (SIC)**

## MANUFACTURING

<i>Code</i>	<i>Short Title</i>
<b>20</b>	<b>FOOD AND KINDRED PRODUCTS</b>
<b>201</b>	<b>Meat Products</b>
2011	Meat packing plants
2013	Sausages and other prepared meats
2016	Poultry dressing plants
2017	Poultry and egg processing
<b>202</b>	<b>Dairy Products</b>
2021	Creamery butter
2022	Cheese, natural and processed
2023	Condensed and evaporated milk
2024	Ice cream and frozen desserts
2026	Fluid milk
<b>203</b>	<b>Preserved Fruits and Vegetables</b>
2032	Canned specialties
2033	Canned fruits and vegetables
2034	Dehydrated fruits, vegetables, soups
2035	Pickles, sauces, and salad dressings
2037	Frozen fruits and vegetables
2038	Frozen specialties
<b>204</b>	<b>Grain Mill Products</b>
2041	Flour and other grain mill products
2043	Cereal breakfast foods
2044	Rice milling
2045	Blended and prepared flour
2046	Wet corn milling
2047	Dog, cat, and other pet food
2048	Prepared feeds, nec
<b>205</b>	<b>Bakery Products</b>
2051	Bread, cake, and related products
2052	Cookies and crackers
<b>206</b>	<b>Sugar and Confectionery Products</b>
2061	Raw cane sugar
2062	Cane sugar refining

<i>Code</i>	<i>Short Title</i>
2063	Beet sugar
2065	Confectionery products
2066	Chocolate and cocoa products
2067	Chewing gum
<b>207</b>	<b>Fats and Oils</b>
2074	Cottonseed oil mills
2075	Soybean oil mills
2076	Vegetable oil mills, nec
2077	Animal and marine fats and oils
2079	Shortening and cooking oils
<b>208</b>	<b>Beverages</b>
2082	Malt beverages
2083	Malt
2084	Wines, brandy, and brandy spirits
2085	Distilled liquor, except brandy
2086	Bottled and canned soft drinks
2087	Flavoring extracts and sirups, nec
<b>209</b>	<b>Misc. Foods and Kindred Products</b>
2091	Canned and cured seafoods
2092	Fresh or frozen packaged fish
2095	Roasted coffee
2097	Manufactured ice
2098	Macaroni and spaghetti
2099	Food preparations, nec
<b>21</b>	<b>TOBACCO MANUFACTURES</b>
<b>211</b>	<b>Cigarettes</b>
2111	Cigarettes
<b>212</b>	<b>Cigars</b>
2121	Cigars
<b>213</b>	<b>Chewing and Smoking Tobacco</b>
2131	Chewing and smoking tobacco
<b>214</b>	<b>Tobacco Stemming and Redrying</b>
2141	Tobacco stemming and redrying

<i>Code</i>	<i>Short Title</i>
<b>22</b>	<b>TEXTILE MILL PRODUCTS</b>
221	Weaving Mills, Cotton
2211	Weaving mills, cotton
222	Weaving Mills, Synthetics
2221	Weaving mills, synthetics
223	Weaving and Finishing Mills, Wool
2231	Weaving and finishing mills, wool
224	Narrow Fabric Mills
2241	Narrow fabric mills
225	Knitting mills
2251	Women's hosiery, except socks
2252	Hosiery, nec
2253	Knit outerwear mills
2254	Knit underwear mills
2257	Circular knit fabric mills
2258	Warp knit fabric mills
2259	Knitting mills, nec
226	Textile Finishing, Except Wool
2261	Finishing plants, cotton
2262	Finishing plants, synthetics
2269	Finishing plants, nec
227	Floor Covering Mills
2271	Woven carpets and rugs
2272	Tufted carpets and rugs
2279	Carpets and rugs, nec
228	Yarn and Thread Mills
2281	Yarn mills, except wool
2282	Throwing and winding mills
2283	Wool yarn mills
2284	Thread mills
229	Miscellaneous Textile Goods
2291	Felt goods, exc. woven felts & hats
2292	Lace goods
2293	Paddings and upholstery filling
2294	Processed textile waste
2295	Coated fabrics, not rubberized
2296	Tire cord and fabric
2297	Nonwoven fabrics
2298	Cordage and twine
2299	Textile goods, nec
<b>23</b>	<b>APPAREL AND OTHER TEXTILE PRODUCTS</b>
231	Men's and Boys' Suits and Coats
2311	Men's and boys' suits and coats
232	Men's and Boys' Furnishings
2321	Men's and boys' shirts and nightwear
2322	Men's and boys' underwear
2323	Men's and boys' neckwear
2327	Men's and boys' separate trousers
2328	Men's and boys' work clothing
2329	Men's and boys' clothing, nec

<i>Code</i>	<i>Short Title</i>
<b>233</b>	<b>Women's and Misses' Outerwear</b>
2331	Women's & misses' blouses & waists
2335	Women's and misses' dresses
2337	Women's and misses' suits and coats
2339	Women's and misses' outerwear, nec
234	Women's and Children's Undergarments
2341	Women's and children's underwear
2342	Brassieres and allied garments
235	Hats, Caps, and Millinery
2351	Millinery
2352	Hats and caps, except millinery
236	Children's Outerwear
2361	Children's dresses and blouses
2363	Children's coats and suits
2369	Children's outerwear, nec
237	Fur Goods
2371	Fur goods
238	Miscellaneous Apparel and Accessories
2381	Fabric dress and work gloves
2384	Robes and dressing gowns
2385	Waterproof outer garments
2386	Leather and sheep lined clothing
2387	Apparel belts
2389	Apparel and accessories, nec
239	Misc. Fabricated Textile Products
2391	Curtains and draperies
2392	House furnishings, nec
2393	Textile bags
2394	Canvas and related products
2395	Pleating and stitching
2396	Automotive and apparel trimmings
2397	Schiffli machine embroideries
2399	Fabricated textile products, nec
<b>24</b>	<b>LUMBER AND WOOD PRODUCTS</b>
241	Logging Camps & Logging Contractors
2411	Logging camps & logging contractors
242	Sawmills and Planing Mills
2421	Sawmills and planing mills, general
2426	Hardwood dimension and flooring
2429	Special product sawmills, nec
243	Millwork, Plywood & Structural Members
2431	Millwork
2434	Wood kitchen cabinets
2435	Hardwood veneer and plywood
2436	Softwood veneer and plywood
2439	Structural wood members, nec
244	Wood Containers
2441	Nailed wood boxes and shooks
2448	Wood pallets and skids
2449	Wood containers, nec



<i>Code</i>	<i>Short Title</i>
245	<b>Wood Buildings and Mobile Homes</b>
2451	Mobile homes
2452	Prefabricated wood buildings
249	<b>Miscellaneous Wood Products</b>
2491	Wood preserving
2492	Particleboard
2499	Wood products, nec
25	<b>FURNITURE AND FIXTURES</b>
251	<b>Household Furniture</b>
2511	Wood household furniture
2512	Upholstered household furniture
2514	Metal household furniture
2515	Mattresses and bedsprings
2517	Wood TV and radio cabinets
2519	Household furniture, nec
252	<b>Office Furniture</b>
2521	Wood office furniture
2522	Metal office furniture
253	<b>Public Building &amp; Related Furniture</b>
2531	Public building & related furniture
254	<b>Partitions and Fixtures</b>
2541	Wood partitions and fixtures
2542	Metal partitions and fixtures
259	<b>Miscellaneous Furniture and Fixtures</b>
2591	Drapery hardware & blinds & shades
2599	Furniture and fixtures, nec
26	<b>PAPER AND ALLIED PRODUCTS</b>
261	<b>Pulp Mills</b>
2611	Pulp mills
262	<b>Paper Mills, Except Building Paper</b>
2621	Paper mills, except building paper
263	<b>Paperboard Mills</b>
2631	Paperboard mills
264	<b>Misc. Converted Paper Products</b>
2641	Paper coating and glazing
2642	Envelopes
2643	Bags, except textile bags
2645	Die-cut paper and board
2646	Pressed and molded pulp goods
2647	Sanitary paper products
2648	Stationery products
2649	Converted paper products, nec
265	<b>Paperboard Containers and Boxes</b>
2651	Folding paperboard boxes
2652	Set-up paperboard boxes
2653	Corrugated and solid fiber boxes
2654	Sanitary food containers
2655	Fiber cans, drums & similar products
266	<b>Building Paper and Board Mills</b>
2661	Building paper and board mills

<i>Code</i>	<i>Short Title</i>
27	<b>PRINTING AND PUBLISHING</b>
271	<b>Newspapers</b>
2711	Newspapers
272	<b>Periodicals</b>
2721	Periodicals
273	<b>Books</b>
2731	Book publishing
2732	Book printing
274	<b>Miscellaneous Publishing</b>
2741	Miscellaneous publishing
275	<b>Commercial Printing</b>
2751	Commercial printing, letterpress
2752	Commercial printing, lithographic
2753	Engraving and plate printing
2754	Commercial printing, gravure
276	<b>Manifold Business Forms</b>
2761	Manifold business forms
277	<b>Greeting Card Publishing</b>
2771	Greeting card publishing
278	<b>Blankbooks and Bookbinding</b>
2782	Blankbooks and looseleaf binders
2789	Bookbinding and related work
279	<b>Printing Trade Services</b>
2791	Typesetting
2793	Photoengraving
2794	Electrotyping and stereotyping
2795	Lithographic platemaking services
28	<b>CHEMICALS AND ALLIED PRODUCTS</b>
281	<b>Industrial Inorganic Chemicals</b>
2812	Alkalies and chlorine
2813	Industrial gases
2816	Inorganic pigments
2819	Industrial inorganic chemicals, nec
282	<b>Plastics Materials and Synthetics</b>
2821	Plastics materials and resins
2822	Synthetic rubber
2823	Cellulosic man-made fibers
2824	Organic fibers, noncellulosic
283	<b>Drugs</b>
2831	Biological products
2833	Medicinals and botanicals
2834	Pharmaceutical preparations
284	<b>Soap, Cleaners, and Toilet Goods</b>
2841	Soap and other detergents
2842	Polishes and sanitation goods
2843	Surface active agents
2844	Toilet preparations
285	<b>Paints and Allied Products</b>
2851	Paints and allied products
286	<b>Industrial Organic Chemicals</b>

<i>Code</i>	<i>Short Title</i>
2861	Gum and wood chemicals
2865	Cyclic crudes and intermediates
2869	Industrial organic chemicals, nec
287	<b>Agricultural Chemicals</b>
2873	Nitrogenous fertilizers
2874	Phosphatic fertilizers
2875	Fertilizers, mixing only
2879	Agricultural chemicals, nec
289	<b>Miscellaneous Chemical Products</b>
2891	Adhesives and sealants
2892	Explosives
2893	Printing ink
2895	Carbon black
2899	Chemical preparations, nec
<b>29</b>	<b>PETROLEUM AND COAL PRODUCTS</b>
291	<b>Petroleum Refining</b>
2911	Petroleum refining
295	<b>Paving and Roofing Materials</b>
2951	Paving mixtures and blocks
2952	Asphalt felts and coatings
299	<b>Misc. Petroleum and Coal Products</b>
2992	Lubricating oils and greases
2999	Petroleum and coal products, nec
<b>30</b>	<b>RUBBER AND MISC. PLASTICS PRODUCTS</b>
301	<b>Tires and Inner Tubes</b>
3011	Tires and inner tubes
302	<b>Rubber and Plastics Footwear</b>
3021	Rubber and plastics footwear
303	<b>Reclaimed Rubber</b>
3031	Reclaimed rubber
304	<b>Rubber and Plastics Hose and Belting</b>
3041	Rubber and plastics hose and belting
306	<b>Fabricated Rubber Products, nec</b>
3069	Fabricated rubber products, nec
307	<b>Miscellaneous Plastics Products</b>
3079	Miscellaneous plastics products
<b>31</b>	<b>LEATHER AND LEATHER PRODUCTS</b>
311	<b>Leather Tanning and Finishing</b>
3111	Leather tanning and finishing
313	<b>Boot and Shoe Cut Stock and Findings</b>
3131	Boot and shoe cut stock and findings
314	<b>Footwear, Except Rubber</b>
3142	House slippers
3143	Men's footwear, except athletic
3144	Women's footwear, except athletic
3149	Footwear, except rubber, nec
315	<b>Leather Gloves and Mittens</b>
3151	Leather gloves and mittens

<i>Code</i>	<i>Short Title</i>
316	<b>Luggage</b>
3161	Luggage
317	<b>Handbags and Personal Leather Goods</b>
3171	Women's handbags and purses
3172	Personal leather goods, nec
319	<b>Leather Goods, nec</b>
3199	Leather goods, nec
<b>32</b>	<b>STONE, CLAY, AND GLASS PRODUCTS</b>
321	<b>Flat Glass</b>
3211	Flat glass
322	<b>Glass and Glassware, Pressed or Blown</b>
3221	Glass containers
3229	Pressed and blown glass, nec
323	<b>Products of Purchased Glass</b>
3231	Products of purchased glass
324	<b>Cement, Hydraulic</b>
3241	Cement, hydraulic
325	<b>Structural Clay Products</b>
3251	Brick and structural clay tile
3253	Ceramic wall and floor tile
3255	Clay refractories
3259	Structural clay products, nec
326	<b>Pottery and Related Products</b>
3261	Vitreous plumbing fixtures
3262	Vitreous china food utensils
3263	Fine earthenware food utensils
3264	Porcelain electrical supplies
3269	Pottery products, nec
327	<b>Concrete, Gypsum, and Plaster Products</b>
3271	Concrete block and brick
3272	Concrete products, nec
3273	Ready-mixed concrete
3274	Lime
3275	Gypsum products
328	<b>Cut Stone and Stone Products</b>
3281	Cut stone and stone products
329	<b>Misc. Nonmetallic Mineral Products</b>
3291	Abrasive products
3292	Asbestos products
3293	Gaskets, packing and sealing devices
3295	Minerals, ground or treated
3296	Mineral wool
3297	Nonclay refractories
3299	Nonmetallic mineral products, nec
<b>33</b>	<b>PRIMARY METAL INDUSTRIES</b>
331	<b>Blast Furnace and Basic Steel Products</b>
3312	Blast furnaces and steel mills
3313	Electrometallurgical products
3315	Steel wire and related products

<i>Code</i>	<i>Short Title</i>
3316	Cold finishing of steel shapes
3317	Steel pipe and tubes
332	<b>Iron and Steel Foundries</b>
3321	Gray iron foundries
3322	Malleable iron foundries
3324	Steel investment foundries
3325	Steel foundries, nec
333	<b>Primary Nonferrous Metals</b>
3331	Primary copper
3332	Primary lead
3333	Primary zinc
3334	Primary aluminum
3339	Primary nonferrous metals, nec
334	<b>Secondary Nonferrous Metals</b>
3341	Secondary nonferrous metals
335	<b>Nonferrous Rolling and Drawing</b>
3351	Copper rolling and drawing
3353	Aluminum sheet, plate, and foil
3354	Aluminum extruded products
3355	Aluminum rolling and drawing, nec
3356	Nonferrous rolling and drawing, nec
3357	Nonferrous wire drawing & insulating
336	<b>Nonferrous Foundries</b>
3361	Aluminum foundries
3362	Brass, bronze, and copper foundries
3369	Nonferrous foundries, nec
339	<b>Miscellaneous Primary Metal Products</b>
3398	Metal heat treating
3399	Primary metal products, nec
34	<b>FABRICATED METAL PRODUCTS</b>
341	<b>Metal Cans and Shipping Containers</b>
3411	Metal cans
3412	Metal barrels, drums, and pails
342	<b>Cutlery, Hand Tools, and Hardware</b>
3421	Cutlery
3423	Hand and edge tools, nec
3425	Hand saws and saw blades
3429	Hardware, nec
343	<b>Plumbing and Heating, Except Electric</b>
3431	Metal sanitary ware
3432	Plumbing fittings and brass goods
3433	Heating equipment, except electric
344	<b>Fabricated Structural Metal Products</b>
3441	Fabricated structural metal
3442	Metal doors, sash, and trim
3443	Fabricated plate work (boiler shops)
3444	Sheet metal work
3446	Architectural metal work
3448	Prefabricated metal buildings
3449	Miscellaneous metal work

<i>Code</i>	<i>Short Title</i>
345	<b>Screw Machine Products, Bolts, etc.</b>
3451	Screw machine products
3452	Bolts, nuts, rivets, and washers
346	<b>Metal Forgings and Stampings</b>
3462	Iron and steel forgings
3463	Nonferrous forgings
3465	Automotive stampings
3466	Crowns and closures
3469	Metal stampings, nec
347	<b>Metal Services, nec</b>
3471	Plating and polishing
3479	Metal coating and allied services
348	<b>Ordinance and Accessories, nec</b>
3482	Small arms ammunition
3483	Ammunition, exc. for small arms, nec
3484	Small arms
3489	Ordinance and accessories, nec
349	<b>Misc. Fabricated Metal Products</b>
3493	Steel springs, except wire
3494	Valves and pipe fittings
3495	Wire springs
3496	Misc. fabricated wire products
3497	Metal foil and leaf
3498	Fabricated pipe and fittings
3499	Fabricated metal products, nec
35	<b>MACHINERY, EXCEPT ELECTRICAL</b>
351	<b>Engines and Turbines</b>
3511	Turbines and turbine generator sets
3519	Internal combustion engines, nec
352	<b>Farm and Garden Machinery</b>
3523	Farm machinery and equipment
3524	Lawn and garden equipment
353	<b>Construction and Related Machinery</b>
3531	Construction machinery
3532	Mining machinery
3533	Oil field machinery
3534	Elevators and moving stairways
3535	Conveyors and conveying equipment
3536	Holsts, cranes, and monorails
3537	Industrial trucks and tractors
354	<b>Metalworking Machinery</b>
3541	Machine tools, metal cutting types
3542	Machine tools, metal forming types
3544	Special dies, tools, jigs & fixtures
3545	Machine tool accessories
3546	Power driven hand tools
3547	Rolling mill machinery
3549	Metalworking machinery, nec
355	<b>Special Industry Machinery</b>
3551	Food products machinery

<i>Code</i>	<i>Short Title</i>
3552	Textile machinery
3553	Woodworking machinery
3554	Paper industries machinery
3555	Printing trades machinery
3559	Special industry machinery, nec
356	<b>General Industrial Machinery</b>
3561	Pumps and pumping equipment
3562	Ball and roller bearings
3563	Air and gas compressors
3564	Blowers and fans
3565	Industrial patterns
3566	Speed changers, drives, and gears
3567	Industrial furnaces and ovens
3568	Power transmission equipment, nec
3569	General industrial machinery, nec
357	<b>Office and Computing Machines</b>
3572	Typewriters
3573	Electronic computing equipment
3574	Calculating and accounting machines
3576	Scales and balances, exc. laboratory
3579	Office machines, nec
358	<b>Refrigeration and Service Machinery</b>
3581	Automatic merchandising machines
3582	Commercial laundry equipment
3585	Refrigeration and heating equipment
3586	Measuring and dispensing pumps
3589	Service industry machinery, nec
359	<b>Misc. Machinery, Except Electrical</b>
3592	Carburetors, pistons, rings, valves
3599	Machinery, except electrical, nec
36	<b>ELECTRIC AND ELECTRONIC EQUIPMENT</b>
361	<b>Electric Distributing Equipment</b>
3612	Transformers
3613	Switchgear and switchboard apparatus
362	<b>Electrical Industrial Apparatus</b>
3621	Motors and generators
3622	Industrial controls
3623	Welding apparatus, electric
3624	Carbon and graphite products
3629	Electrical industrial apparatus, nec
363	<b>Household Appliances</b>
3631	Household cooking equipment
3632	Household refrigerators and freezers
3633	Household laundry equipment
3634	Electric housewares and fans
3635	Household vacuum cleaners
3636	Sewing machines
3639	Household appliances, nec

<i>Code</i>	<i>Short Title</i>
364	<b>Electric Lighting and Wiring Equipment</b>
3641	Electric lamps
3643	Current-carrying wiring devices
3644	Noncurrent-carrying wiring devices
3645	Residential lighting fixtures
3646	Commercial lighting fixtures
3647	Vehicular lighting equipment
3648	Lighting equipment, nec
365	<b>Radio and TV Receiving Equipment</b>
3651	Radio and TV receiving sets
3652	Phonograph records
366	<b>Communication Equipment</b>
3661	Telephone and telegraph apparatus
3662	Radio and TV communication equipment
367	<b>Electronic Components and Accessories</b>
3671	Electron tubes, receiving type
3672	Cathode ray television picture tubes
3673	Electron tubes, transmitting
3674	Semiconductors and related devices
3675	Electronic capacitors
3676	Electronic resistors
3677	Electronic coils and transformers
3678	Electronic connectors
3679	Electronic components, nec
369	<b>Misc. Electrical Equipment &amp; Supplies</b>
3691	Storage batteries
3692	Primary batteries, dry and wet
3693	X-ray apparatus and tubes
3694	Engine electrical equipment
3699	Electrical equipment & supplies, nec
37	<b>TRANSPORTATION EQUIPMENT</b>
371	<b>Motor Vehicles and Equipment</b>
3711	Motor vehicles and car bodies
3713	Truck and bus bodies
3714	Motor vehicle parts and accessories
3715	Truck trailers
372	<b>Aircraft and Parts</b>
3721	Aircraft
3724	Aircraft engines and engine parts
3728	Aircraft equipment, nec
373	<b>Ship and Boat Building and Repairing</b>
3731	Ship building and repairing
3732	Boat building and repairing
374	<b>Railroad Equipment</b>
3743	Railroad equipment
375	<b>Motorcycles, Bicycles, and Parts</b>
3751	Motorcycles, bicycles, and parts
376	<b>Guided Missiles, Space Vehicles, Parts</b>
3761	Guided missiles and space vehicles

<i>Code</i>	<i>Short Title</i>
3764	Space propulsion units and parts
3769	Space vehicle equipment, nec
379	<b>Miscellaneous Transportation Equip- ment</b>
3792	Travel trailers and campers
3795	Tanks and tank components
3799	Transportation equipment, nec.
38	<b>INSTRUMENTS AND RELATED PRODUCTS</b>
381	<b>Engineering &amp; Scientific Instruments</b>
3811	Engineering & scientific instruments
382	<b>Measuring and Controlling Devices</b>
3822	Environmental controls
3823	Process control instruments
3824	Fluid meters and counting devices
3825	Instruments to measure electricity
3829	Measuring & controlling devices, nec
383	<b>Optical Instruments and Lenses</b>
3832	Optical instruments and lenses
384	<b>Medical Instruments and Supplies</b>
3841	Surgical and medical instruments
3842	Surgical appliances and supplies
3843	Dental equipment and supplies
385	<b>Ophthalmic Goods</b>
3851	Ophthalmic goods
386	<b>Photographic Equipment and Supplies</b>
3861	Photographic equipment and supplies
387	<b>Watches, Clocks, and Watchcases</b>
3873	Watches, clocks, and watchcases

<i>Code</i>	<i>Short Title</i>
39	<b>MISCELLANEOUS MANUFACTURING INDUSTRIES</b>
391	<b>Jewelry, Silverware, and Plated Ware</b>
3911	Jewelry, precious metal
3914	Silverware and plated ware
3915	Jewelers' materials & lapidary work
393	<b>Musical Instruments</b>
3931	Musical instruments
394	<b>Toys and Sporting Goods</b>
3942	Dolls
3944	Games, toys, and children's vehicles
3949	Sporting and athletic goods, nec
395	<b>Pens, Pencils, Office and Art Supplies</b>
3951	Pens and mechanical pencils
3952	Lead pencils and art goods
3953	Marking devices
3955	Carbon paper and inked ribbons
396	<b>Costume Jewelry and Notions</b>
3961	Costume jewelry
3962	Artificial flowers
3963	Buttons
3964	Needles, pins, and fasteners
399	<b>Miscellaneous Manufactures</b>
3991	Brooms and brushes
3993	Signs and advertising displays
3995	Burial caskets
3996	Hard surface floor coverings
3999	Manufacturing industries, nec

