

Part I - PROPOSED NEW INDUSTRY STRUCTURE FOR PETROLEUM AND COAL PRODUCTS MANUFACTURING, CHEMICALS MANUFACTURING, AND RUBBER AND PLASTICS PRODUCTS MANUFACTURING

Section A - NAICS Structure

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM

(NAICS)

AGREEMENT Number 1

This Document represents the proposed agreement on the structure of the North American Industry Classification System (NAICS) for the following industries:

**Petroleum and Coal Products Manufacturing
Chemicals Manufacturing
Rubber and Plastics Products Manufacturing**

The detailed NAICS structure along with a brief description of the structure is attached (Attachments 1 and 2). Each country agrees to release a copy of the proposed NAICS structure to interested data users. Comments received will be shared among the countries and discussions held before a final decision on the structure is made. Each country may add additional detailed industries, below the 4-digit level of NAICS, as necessary to meet national needs, so long as this additional detail aggregates to a 4-digit NAICS level in order to ensure full comparability among the three countries. This NAICS structure was presented and provisionally accepted at the NAICS Committee meeting held on May 18 and 19 in Ottawa, Canada.

ACCEPTED:	Signature	Date
Canada	<u>/s/ <i>Jacob Ryten</i></u>	<u>5/19/95</u>
Mexico	<u>/s/ <i>Enrique Ordaz</i></u>	<u>5/19/95</u>
United States	<u>/s/ <i>Jack E. Triplett</i></u>	<u>5/19/95</u>

NAICS STRUCTURE

XX **PETROLEUM AND COAL PRODUCTS MANUFACTURING**

- XXX Petroleum and Coal Products Manufacturing
- XXXX Petroleum Refineries
- XXXX Asphalt Paving and Roofing and Saturated Materials Manufacturing
- XXXX Other Petroleum and Coal Products Manufacturing

XX **CHEMICALS MANUFACTURING**

- XXX Basic Chemicals Manufacturing
- XXXX Petrochemicals Manufacturing
- XXXX Industrial Gases Manufacturing
- XXXX Dyes and Pigments Manufacturing
- XXXX Other Inorganic Chemicals Manufacturing
- XXXX Other Organic Chemicals Manufacturing

- XXX Resins, Synthetic Rubber, Artificial and Synthetic Fibers and Filament
Manufacturing
- XXXX Resins and Synthetic Rubber Manufacturing
- XXXX Artificial and Synthetic Fibers and Filament Manufacturing

- XXX Pesticides, Fertilizers, and Other Agricultural Chemicals Manufacturing
- XXXX Fertilizers Manufacturing
- XXXX Pesticides and Other Agricultural Chemicals Manufacturing

- XXX Pharmaceuticals and Medicine Manufacturing
- XXX Pharmaceuticals and Medicine Manufacturing

- XXX Paints, Coatings, Adhesives, and Sealants Manufacturing
- XXXX Paints and Coatings Manufacturing
- XXXX Adhesives and Sealants Manufacturing

- XXX Soaps, Cleaning Compounds, and Toilet Preparations Manufacturing
- XXXX Soaps and Cleaning Compounds Manufacturing
- XXXX Toilet Preparations Manufacturing

- XXX Miscellaneous Chemical Products Manufacturing
- XXXX Printing Ink Manufacturing
- XXXX Explosives Manufacturing

XXXX Other Miscellaneous Chemical Products Manufacturing
XX RUBBER AND PLASTICS PRODUCTS MANUFACTURING

XXX Rubber Products Manufacturing
XXXX Tires and Tubes Manufacturing
XXXX Rubber and Plastics Hose and Belting Manufacturing
XXXX Other Rubber Products Manufacturing

XXX Plastics Products Manufacturing
XXXX Unsupported Plastics Films, Sheets and Bags Manufacturing
XXXX Unsupported Profile Shapes, Plastics Pipes, and Fittings Manufacturing
XXXX Laminated Plastics Plates, Sheets, and Shapes Manufacturing
XXXX Polystyrene Foam Products Manufacturing
XXXX Urethane Foam Products Manufacturing
XXXX Plastics Bottles Manufacturing
XXXX Other Plastics Products Manufacturing

North American Industry Classification System

Draft Classification for: **Petroleum and Coal Products Manufacturing**
 Chemicals Manufacturing
 Rubber and Plastics Products Manufacturing

Representatives of the statistical agencies of Canada, Mexico and the United States have agreed to a draft industry classification for these industries.

The draft classification provides for three industry subsectors, Petroleum and Coal Products Manufacturing; Chemicals Manufacturing; and Rubber and Plastics Products Manufacturing. These are further subdivided into ten industry groups and thirty industries. These industry subsectors will be part of the Manufacturing sector(s) of the NAICS classification.

Achievement of Objectives

The classification meets the objectives for the North American Industry Classification System. It is comprised of industries that group establishments with similar production processes, that is, it applies the production-oriented economic concept. In the main, the hierarchical structure of the classification also follows the production concept.

The classification achieves comparability for the three participating countries. Based on existing data, all three countries expect to be able to publish data regularly at the industry level of the structure. All countries agree on the detailed definitions of the industries.

The classification improves comparability with other countries. With the exception of the "miscellaneous" industries, all industries are compatible with the 2-digit level of the current International Standard Industrial Classification of All Economic Activities (ISIC, Revision 3) of the United Nations. This means that each NAICS industry is the same as, or part of, a single ISIC 2-digit Division. Therefore, data tabulated using NAICS can be readily re-tabulated according to ISIC. This comparability extends to higher levels of the NAICS. For example, there is little difference between the NAICS Chemical Industries, and ISIC 24, Manufacture of Chemicals and Chemical Products.

Other objectives of the NAICS project are not as relevant in this area of the classification as in others. These objectives are the delineation of new and emerging industries, service industries and industries engaged in the production of advanced technologies. The industry sector in question is relatively mature, generally produces goods, and has always employed relatively advanced technology. Therefore the emphasis was on the production concept and comparability.

The industries have high specialization ratios, and they are economically significant. The detail and structure of the classification are balanced in size. This enhances the classification's suitability for sampling, data-publishing and other aspects of survey operations. Finally, disruptions at the NAICS industry level to time series have been kept to a

minimum. Most of the changes at the detail to existing classifications are marginal. The major changes are well-identified and can be taken into account in linking time series.

Limitations of the Classification

On the other hand, there are some analytical requirements which cannot be met by the industry classification. In particular, there is a demand for data on the production of all articles of plastic. This cannot be accommodated by the industry classification due to the ubiquity of plastic in manufactured products. Many industrial activities that incorporate plastics in combination with other materials are classified elsewhere in manufacturing.

Similarly, a breakdown of plastics industries which follows market lines cannot be produced. This arises from the fact that, in general, plastics fabricators can and do switch production from one type of product to another as market conditions change. In some cases a market or demand category does correspond to a distinct production process, in which case an industry can be defined which supports the needs of both supply-oriented and demand-oriented analyses. An example of this is the NAICS Plastics Bottles Manufacturing industry. However, in general, this is not possible because of the way businesses have organized their production facilities.

Users requiring data for demand analysis can instead make use of statistics based on commodity classifications. Each country publishes such data. Efforts are underway to harmonize the commodity classifications to allow comparability of these statistics.

Constraints on the NAICS Classification

There were a few factors which constrained the structure and detail of the classification in the area under consideration.

An issue related to the coding structure is the ability to publish and the economic significance of the items defined in the classification. In the chemicals industry, most activities which were identified in one country exist in the others. However, often an activity is not economically significant to the same degree in all countries. Further, data for some significant activities cannot be published for a particular country for reasons of confidentiality, such as the matches manufacturing industry in Canada. Finally, the way activities are combined in establishments differs to some extent in the different countries. A structure could have been developed which specified such activities in NAICS, but the resulting statistical tables for any given country would have numerous insignificant or suppressed entries. It was preferable to adopt an operating rule that the NAICS industries for this area must be economically significant and publishable. It is anticipated that each country will publish additional categories which comprise sub-divisions of NAICS industries, to present data for activities which are nationally significant.

Other constraints did involve the nature of the industries to be classified. In the case of chemicals, it was essential for NAICS to include Petrochemicals Manufacturing as an industry, due to the significance of this activity in Mexico. This is a major change for the United States and Canada. It involves some extra work for these countries in implementing the classification, since the direct assignment of industry codes from commodity output information (a common technique for most manufacturing industries) cannot be used without

modification. Nevertheless, the importance of the activity, and the fact that it is based on a well-defined production process, resulted in its inclusion in NAICS.

A General Outline

The Petroleum and Coal Products Manufacturing subsector is based on the transformation of crude petroleum and coal into usable products. The dominant process is petroleum refining, which involves the separation of crude petroleum into component products through such techniques as cracking and distillation.

The Chemicals Manufacturing subsector is based on the transformation of organic and inorganic raw materials by a chemical process, and the formulation of products. This subsector distinguishes the production of basic chemicals, which comprises the first industry group, from the production of intermediate and end products produced by further processing of basic chemicals, which make up the remaining industry groups.

Concerning Basic Chemicals Manufacturing industries, data users will note that a general distinction has not been made between organic and inorganic basic chemicals. The production of organic and inorganic industrial gases is a single activity. In Mexico, the production of organic and inorganic dyes and pigments commonly takes place in the same establishments.

The industry subsector Rubber and Plastics Products Manufacturing includes establishments which make goods by processing raw rubber and plastics materials. To the extent possible, this subsector is restricted to industrial activities whose core technology is the production of products made of just one material, rubber or plastic. Many manufacturing activities use rubber or plastic as one of several inputs, to the extent that the core technology relates to the type of product produced. An example of this is the manufacture of footwear. Typically, more than one material is used to produce shoes, so technologies which allow disparate materials to be formed and combined are of central importance in describing the footwear manufacturing activity. Such activities, for example footwear and furniture manufacture, are generally classified elsewhere than in the industry subsectors organized around the core technologies of rubber and plastic.

The main exception to this principle is Tires and Tubes Manufacturing. The production of tires is included in Rubber Products Manufacturing to minimize the disruption of time series and for comparability with ISIC, rather than because it particularly fits the general production process of the major group subsector. Tires are normally made from several materials.

A distinction is made between rubber and plastics products at the industry group level. It is not a rigid distinction, as can be seen from the definition of Rubber and Plastics Hose and Belting Manufacturing. As materials technology improves, plastics are increasingly being used as a substitute for rubber. Eventually, the distinction may disappear as a basis for defining establishments, and be limited to the commodity classification.

The Plastics Products Manufacturing industry subsector consists generally of activities involving the processing of plastics materials in forms such as pellets into intermediate or final products, using such processes as extrusion and injection moulding. Within most of these industries, the production process is such that a wide variety of products can be produced.

Some Changes to the National Classifications

This section highlights some of the significant changes to existing national classifications.

In Petroleum and Coal Products Manufacturing, the main change to an existing classification is the inclusion of activities currently in CSIC 2721, Asphalt Roofing Industry, in NAICS Asphalt Paving and Roofing and Saturated Materials Manufacturing. It is included here because the defining feature of the production process (the saturation of paper with asphalt) is the manipulation of asphalt.

The production of alumina from bauxite is currently classified in USIC 2819, Industrial Inorganic Chemicals, NEC. The production of alumina does involve the use of a chemical process, but it is analogous to the chemical activities involved in the processing of other ores in smelting and refining industries. It will therefore be treated as an activity in the primary metals, rather than in NAICS Other Inorganic Chemicals Manufacturing.

The production of artificial and synthetic fibers is treated as a textile activity in CSIC. While the outputs are a basic raw material for textile production, the fiber production itself is an activity with chemical characteristics. It is basically a polymerization process, similar to the production of synthetic resins. It is therefore included in the NAICS Chemicals Manufacturing subsector (Artificial and Synthetic Fibers and Filament Manufacturing).

The manufacture of photographic chemicals and sensitized paper is classified in CSIC 3912, Other Instruments and Related Products Industry and in USIC 3861, Photographic Equipment and Supplies. NAICS classifies the production of these goods in Miscellaneous Chemical Products Manufacturing, since their production process is a chemical products process, not an equipment manufacturing process.

The new classification eliminates the 2-digit distinction between rubber products and plastics products which was found in CSIC (groups 15 and 16). NAICS combines CSIC group 15, rubber products, and group 16, plastics products, into one subsector, Rubber and Plastics Products Manufacturing.

NAICS Tires and Tubes Manufacturing includes an activity--the retreading and recapping of tires--which in CSIC and USIC is classified as non-manufacturing. The tire retreading and recapping activity is included in manufacturing because it involves more than just a repair. This activity is an example of "re-building", which occurs when a manufactured article is returned to usability using processes similar to those used in the original manufacturing operation. Re-building activities will be included in manufacturing in NAICS.

NAICS Rubber and Plastics Products Manufacturing excludes the manufacture of footwear, furniture and toys of rubber and plastic. This is a significant change to CMAP, which includes these activities in CMAP 3550, Rubber Industry and 3560, Manufacture of Plastics Products.

NAICS Unsupported Plastics Films, Sheet and Bags Manufacturing includes the manufacture of plastic laminates for packaging and plastic bags, which are classified respectively in USIC 2671, Packaging Paper and Plastics Film, Coated and Laminated and 2673, Plastics, Foil and Coated Paper Bags.

NAICS Other Plastics Products Manufacturing includes the manufacture of most of the plastics motor vehicle parts, such as interior and exterior trim of plastics, which are classified in CSIC 3256, Plastics Parts and Accessories for Motor Vehicles.

CSIC refers to the Standard Industrial Classification of Canada, 1980 Revision. USIC refers to the Standard Industrial Classification of the United States, 1987 Revision. CMAP refers to the Classification of Activities and Products of Mexico.

Section B - Annex: United States National Industry Detail

As explained in the Structure presentation of this notice, for a number of reasons 4-digit industries in the three NAICS industry subsectors presented in Part 1, Section A - Attachment 1, contain less detail than is currently in the U.S. SIC system, and less detail than is required to meet important analytical requirements in the U.S. The three country agreement on NAICS envisions that each country may develop national detailed industries below the NAICS industry level, so long as the national detail can be aggregated to the NAICS classification, thus assuring full North American comparability.

The ECPC is proposing U.S. 5-digit industry detail for the three NAICS industry subsectors covered in Part I of this notice. In the following tables, proposed 5-digit detail is indicated in italics. For cases where no 5-digit detail is shown, the ECPC is proposing that the NAICS 4-digit industries will also represent the most detailed U.S. industries.

TABLE 1

The definitions of status codes are as follows: E-existing industry; N-new industry; R-revised industry; and * means "part of". The abbreviation NEC is used for Not Elsewhere Classified.

1997 NAICS & U.S. DESCRIPTION	STATUS CODE	1987 USIC CODE	1987 USIC DESCRIPTION
XX Petroleum and Coal Products Manufacturing			
XXX Petroleum and Coal Products Manufacturing			
XXXX Petroleum Refineries	E	2911	Petroleum Refining
XXXX Asphalt Paving and Roofing and Saturated Materials Manufacturing			
XXXXX <i>Asphalt Paving Mixtures and Blocks Manufacturing</i>	E	2951	Asphalt Paving Mixtures and Blocks
XXXXX <i>Asphalt Felts and Coatings Manufacturing</i>	E	2952	Asphalt Felts and Coatings
XXXX Other Petroleum and Coal Products Manufacturing			
XXXXX <i>Lubricating Oils and Greases Manufacturing</i>	E	2992	Lubricating Oils and Greases
XXXXX <i>All Other Petroleum and Coal Products Manufacturing</i>	R	2999	Petroleum and Coal Products, NEC
		3312*	Blast Furnaces and Steel Mills (Coke Ovens)
XX Chemicals Manufacturing			
XXX Basic Chemicals Manufacturing			
XXXX Petrochemicals Manufacturing	N	2865*	Cyclic Crudes and Intermediates (Aromatics)
		2869*	Industrial Organic Chemicals, NEC (Aliphatics)
XXXX Industrial Gases Manufacturing	R	2813	Industrial Gases
		2869*	Industrial Organic Chemicals, NEC (Fluorocarbon Gases)
XXXX Dyes and Pigments Manufacturing			
XXXXX <i>Inorganic Dyes and Pigments Manufacturing</i>	N	2816*	Inorganic Pigments (Except Bone and Lamp Black)
		2819*	Industrial Inorganic Chemicals, NEC (Inorganic Dyes)

XXXXX	Organic Dyes and Pigments Manufacturing	N	2865*	Cyclic Crudes and Intermediates (Organic Dyes and Pigments)
XXXX	Other Inorganic Chemicals Manufacturing			
XXXXX	Alkalies and Chlorine Manufacturing	E	2812	Alkalies and Chlorine
XXXXX	Carbon Black Manufacturing	R	2816*	Inorganic pigments (Bone and Lamp Black)
			2895	Carbon Black
XXXXX	All Other Inorganic Chemicals Manufacturing	R	2819*	Industrial Inorganic Chemicals, NEC (Except Activated Carbon and Charcoal, Alumina, and Inorganic Industrial Dyes)
			2869*	Industrial Organic Chemicals, NEC (Carbon Bisulfide)
XXXX	Other Organic Chemicals Manufacturing			
XXXXX	Gum and Wood Chemicals Manufacturing	E	2861	Gum and Wood Chemicals
XXXXX	Cyclic Crudes and Intermediates Manufacturing	R	2865*	Cyclic Crudes and Intermediates (Except Aromatics, Organic Dyes, and Pigments)
XXXXX	All Other Organic Chemicals Manufacturing	R	2869*	Industrial Organic Chemicals, NEC (Except Aliphatics, Carbon Bisulfide, Ethyl Alcohol, Fatty Acid Esters, and Fluorocarbon Gases)
XXX	Resins, Synthetic Rubber, Artificial and Synthetic Fibers & Filament Manufacturing			
XXXX	Resins and Synthetic Rubber Manufacturing			
XXXXX	Plastics Materials and Resins Manufacturing	E	2821	Plastics Materials and Resins
XXXXX	Synthetic Rubber Manufacturing	E	2822	Synthetic Rubber
XXXX	Artificial and Synthetic Fibers and Filament Manufacturing			
XXXXX	Cellulosic Manmade Fibers Manufacturing	E	2823	Cellulosic Manmade fibers
XXXXX	Noncellulosic Organic Fibers Manufacturing	E	2824	Noncellulosic Organic Fibers
XXX	Pesticides, Fertilizers and Other Agricultural Chemicals Manufacturing			
XXXX	Fertilizers Manufacturing			
XXXXX	Nitrogenous Fertilizers Manufacturing	E	2873	Nitrogenous Fertilizers
XXXXX	Phosphatic Fertilizers Manufacturing	E	2874	Phosphatic Fertilizers
XXXXX	Fertilizers, Mixing Only Manufacturing	E	2875	Fertilizers, Mixing Only
XXXX	Pesticides and Other Agricultural Chemicals Manufacturing	E	2879	Agricultural Chemicals, NEC

XXX	Pharmaceuticals and Medicine Manufacturing			
XXXX	Pharmaceuticals and Medicine Manufacturing			
XXXXX	<i>Medicinals and Botanicals Manufacturing</i>	E	2833	Medicinals and Botanicals
XXXXX	<i>Pharmaceutical Preparations Manufacturing</i>	R	2834	Pharmaceutical Preparations
			2835*	Diagnostic Substances (Except in-Vitro Diagnostic)
XXXXX	<i>In-Vitro Diagnostic Substances Manufacturing</i>	N	2835*	Diagnostic Substances (In-Vitro Diagnostic Substances)
XXXXX	<i>Biological Products, Except Diagnostic Manufacturing</i>	E	2836	Biological Products
XXX	Paint, Coatings, Adhesives, and Sealants Manufacturing			
XXXX	Paints and Coatings Manufacturing	R	2851	Paints and Coatings
			2899*	Chemical Preparations, NEC (Frit)
XXXX	Adhesives and Sealants Manufacturing	E	2891	Adhesives and Sealants
XXX	Soaps, Cleaning Compounds and Toilet Preparations Manufacturing			
XXXX	Soaps and Cleaning Compounds Manufacturing			
XXXXX	<i>Soaps and Other Detergents Manufacturing</i>	R	2841	Soaps and Other Detergents
			2844*	Toilet Preparations (Toothpaste)
XXXXX	<i>Polishes and Other Sanitation Goods Manufacturing</i>	E	2842	Polishes and Other Sanitation Goods
XXXXX	<i>Surface Active Agents Manufacturing</i>	E	2843	Surface Active Agents
XXXX	Toilet Preparations Manufacturing	R	2844*	Toilet Preparations (Except Toothpaste)
XXX	Miscellaneous Chemical Products Manufacturing			
XXXX	Printing Ink Manufacturing	R	2893	Printing Inks
			2899*	Chemical Preparations, NEC (Writing and Stamping Inks)
			3952*	Lead Pencils and Art Goods (Drawing Inks and India Ink)
XXXX	Explosives Manufacturing	E	2892	Explosives
XXXX	Other Miscellaneous Chemical Products Manufacturing			
XXXXX	<i>Custom Compounding Purchased Resins Manufacturing</i>	E	3087	Custom Compounding Purchased Resins
XXXXX	<i>Photographic Films, Papers, Plates and Chemicals Manufacturing</i>	N	3861*	Photographic Equipment and Supplies (Photographic Films, Paper and Chemicals)

XXXXX	<i>All Other Miscellaneous Chemical Products Manufacturing</i>	R	2819*	Chemical Preparations, NEC (Activated Carbon and Charcoal)
			2869*	Industrial Organic Chemicals, NEC (Fatty Acid Esters)
			2899*	Chemical Preparations, NEC (Except Frit and Writing and Stamp Ink)
			3999*	Manufacturing Industries, NEC (Matches)
XX	Rubber and Plastics Products Manufacturing			
XXX	Rubber Products Manufacturing			
XXXX	Tires and Tubes Manufacturing			
XXXXX	<i>Tires and Inner Tubes Manufacturing</i>	E	3011	Tires and Inner Tubes
XXXXX	<i>Tire Rebuilding and Repair</i>	E	7534	Tire Rebuilding and Repair
XXXX	Rubber and Plastics Hose and Belting Manufacturing	E	3052	Rubber and Plastics Hose and Belting
XXXX	Other Rubber Products Manufacturing			
XXXXX	<i>Mechanical Rubber Products Manufacturing</i>	E	3061	Mechanical Rubber Products
XXXXX	<i>All Other Rubber Products Manufacturing</i>	R	3053*	Gaskets, Packings and Sealing Devices (Rubber Gaskets, Packings and Sealing Devices
			3069*	Fabricated Rubber Products, NEC (Except Rubberized Fabric and Rubber Resilient Floor Covering)
XXX	Plastics Products Manufacturing			
XXXX	Unsupported Plastics Films, Sheets and Bags Manufacturing			
XXXXX	<i>Unsupported Plastics Bags Manufacturing</i>	N	2673*	Bags: Plastics, Laminated, and Coated (Plastics Bags)
XXXXX	<i>Unsupported Plastics Packaging Films and Sheets Manufacturing</i>	N	2671*	Paper Coated and Laminated, NEC (Plastics Packaging Film and Sheet)
XXXXX	<i>Unsupported Plastics Films and Sheets, Except Packaging Manufacturing</i>	E	3081	Unsupported Plastics Film and Sheets, Except Packaging
			3073*	Laminated Plastics Plate, Sheet, and Profile Shapes (Acrylic Sheets)
XXXX	Unsupported Profile Shapes, Plastics Pipes, and Manufacturing	Fittings		

XXXXX	Unsupported Plastics Profile Shapes Manufacturing	R	3082	Unsupported Plastics Profile Shapes
			3089*	Plastics Product, NEC (Plastics Sausage Casings)
XXXXX	Plastics Pipes and Pipe Fittings Manufacturing	R	3084	Plastics Pipes
			3089*	Plastics Products, NEC (Plastics Pipe Fittings)
XXXX	Laminated Plastics Plates, Sheets, and Shapes Manufacturing	E	3083*	Laminated Plastics Plate, Sheet and Shapes (Except Acrylic Sheets)
XXXX	Polystyrene Foam Products Manufacturing	N	3086*	Plastics Foam Products (Polystyrene Foam Products)
XXXX	Urethane Foam Products Manufacturing	N	3086*	Plastics Foam Products (Urethane Foam Products)
XXXX	Plastics Bottles Manufacturing	E	3085	Plastics Bottles
XXXX	Other Plastics Products Manufacturing			
XXXXX	Plastics Plumbing Fixtures Manufacturing	E	3088	Plastics Plumbing Fixtures
XXXXX	Resilient Floor Coverings Manufacturing	R	3069*	Fabricated Rubber Products, NEC (Rubber Resilient Floor Coverings)
			3996	Hard Surface Floor Coverings, NEC
XXXXX	All Other Plastics Products Manufacturing	R	3053*	Gaskets, Packing and Sealing Devices (Plastics Gaskets, Packing Sealing Devices)
			3089*	Plastics Products, NEC (Except Plastics Pipe Fittings and Plastics Sausage Casings)

TABLE 2

The abbreviation "pt" means "part of". @ means time series break has been created that is greater than 3% of the 1992 value of shipments for the 1987 SIC industry. The abbreviation NEC is used for Not Elsewhere Classified.

1987 USIC CODE	1987 USIC DESCRIPTION	1997 U.S. DESCRIPTION
2812	Alkalies and Chlorine	Alkalies and Chlorine Manufacturing
2813	Industrial Gases	Industrial Gases Manufacturing (pt)
2816	Inorganic Pigments Inorganic Pigments, Except Bone and Lamp Black Bone and Lamp Black	Inorganic Dyes and Pigments Manufacturing (pt) Carbon Black Manufacturing (pt)
2819@	Industrial Inorganic Chemicals, NEC Activated Carbon and Charcoal Alumina Inorganic Dyes Other	Other Miscellaneous Chemical Preparations Manufacturing (pt) Primary Aluminum Manufacturing (pt) Inorganic Dyes and Pigments Manufacturing (pt) Other Miscellaneous Inorganic Chemicals Manufacturing (pt)
2821	Plastics Materials and Resins	Plastics Materials and Resins Manufacturing
2822	Synthetic Rubber	Synthetic Rubber Manufacturing
2823	Cellulosic Manmade Fibers	Cellulosic Manmade Fibers Manufacturing
2824	Noncellulosic Organic Fibers	Noncellulosic Organic Fibers Manufacturing
2833	Medicinals and Botanical	Medicinals and Botanicals Manufacturing
2834	Pharmaceutical Preparations	Pharmaceutical Preparations Manufacturing (pt)

2835@	Diagnostic Substances Diagnostic Substances, Except In-Vitro Diagnostic In-Vitro Diagnostic Substances	Pharmaceutical Preparations Manufacturing (pt) In-Vitro Diagnostic Substances Manufacturing
2836	Biological Products, Except Diagnostic	Biological Products, Except Diagnostic Manufacturing
2841	Soaps and Other Detergents	Soaps and Other Detergents Manufacturing (pt)
2842	Polishes and Other Sanitation Goods	Polishes and Other Sanitation Goods Manufacturing
2843	Surface Active Agents	Surface Active Agents Manufacturing
2844	Toilet Preparations Toilet Preparations, Except Toothpaste Toothpaste	Toilet Preparations Manufacturing Soap and Other Detergents Manufacturing (pt)
2851	Paints and Allied Products	Paints and Coatings Manufacturing (pt)
2861	Gum and Wood Chemicals	Gum and Wood Chemicals Manufacturing
2865@	Cyclic Crudes and Intermediates Aromatics Organic Dyes and Pigments Other	Petrochemicals Manufacturing (pt) Organic Dyes and Pigments Manufacturing (pt) Cyclic Crudes and Intermediates Manufacturing
2869@	Industrial Organic Chemicals, NEC Aliphatics Carbon Bisulfide Ethyl Alcohol Fatty Acid Esters	Petrochemicals Manufacturing (pt) All Other Inorganic Chemicals Manufacturing (pt) Distilled and Blended Liquors Manufacturing (pt) Other Miscellaneous Chemicals Preparations Manufacturing (pt)

	Fluorocarbon Gases Other	Industrial Gases Manufacturing (pt) Other Miscellaneous Organic Chemicals Manufacturing
2873	Nitrogenous Fertilizers	Nitrogenous Fertilizers Manufacturing
2874	Phosphatic Fertilizers	Phosphatic Fertilizers Manufacturing
2875	Fertilizers, Mixing Only	Fertilizers, Mixing Only Manufacturing
2879	Agricultural Chemicals, NEC	Pesticides and Other Agricultural Chemicals Manufacturing
2891	Adhesives and Sealants	Adhesives and Sealants Manufacturing
2892	Explosives	Explosives Manufacturing
2893	Printing Inks	Printing Ink Manufacturing (pt)
2895	Carbon Black	Carbon Black Manufacturing (pt)
2899	Chemical Preparations, NEC Frit Writing and Drawing Inks Other	Paints and Coatings Manufacturing (pt) Printing Ink Manufacturing (pt) Other Miscellaneous Chemical Preparations Manufacturing (pt)
2911	Petroleum Refining	Petroleum Refineries
2951	Asphalt Paving Mixtures and Blocks	Asphalt Paving Mixtures and Blocks Manufacturing
2952	Asphalt Felts and Coatings	Asphalt Felts and Coatings Manufacturing
2992	Lubricating Oils and Greases	Lubricating Oils and Greases Manufacturing
2999	Petroleum and Coal Products, NEC	All Other Petroleum and Coal Products Manufacturing

		(pt)
3011	Tires and Inner Tubes	Tires and Inner Tubes Manufacturing
3021	Rubber and Plastics Footwear	Rubber and Plastics Footwear Manufacturing
3052	Rubber and Plastics Hose and Belting	Rubber and Plastics Hose and Belting Manufacturing
3053@	Gaskets, Packings, and Sealing Devices	
	Cork Gaskets, Packing, and Sealing Devices	Other Miscellaneous Wood Products Manufacturing (pt)
	Metal Gaskets, Packing, and Sealing Devices	Other Miscellaneous Fabricated Metal Products Manufacturing (pt)
	Plastics Gaskets, Packing, and Sealing Devices	All Other Plastics Products Manufacturing (pt)
	Rubber Gaskets, Packing, and Sealing Devices	All Other Rubber Products Manufacturing (pt)
3061	Mechanical Rubber Products	Mechanical Rubber Products Manufacturing
3069	Fabricated Rubber Products, NEC	
	Rubberized Fabric	Coated Fabrics Including Rubberized Mills (pt)
	Rubber Resilient Floor Covering	Resilient Floor Covering Manufacturing (pt)
	Other	All Other Rubber Products Manufacturing (pt)
3081	Unsupported Plastics Film and Sheets, Except Packaging	Unsupported Plastics Films and Sheets, Except Packaging Manufacturing (pt)
3082	Unsupported Plastics Profile Shapes	Unsupported Plastics Profile Shapes Manufacturing (pt)
3083	Laminated Plastics Plate, Sheet Acrylic Sheets	Unsupported Plastics Films and Sheets, Except Packaging Manufacturing (pt)

	Other	Laminated Plastics Plates, Sheets, and Shapes Manufacturing
3084@	Plastics Pipes	Plastics Pipes and Pipe Fittings Manufacturing (pt)
3085	Plastics Bottles	Plastics Bottles Manufacturing
3086	Plastics Foam Products	
	Urethane Foam Products	Urethane Foam Products Manufacturing
	Polystyrene Foam Products	Polystyrene Foam Products Manufacturing
3087	Custom Compounding of Purchased Resins	Custom Compounding of Purchased Resins Manufacturing
3088	Plastics Plumbing Fixtures	Plastics Plumbing Fixtures Manufacturing
3089	Plastics Products, NEC	
	Pipe Fittings	Plastics Pipes and Pipe Fittings Manufacturing (pt)
	Plastics Sausage Casings	Unsupported Plastics Profile Shapes Manufacturing (pt)
	Other	All Other Plastics Products Manufacturing (pt)

Description of Changes to the U.S. System

1. Petroleum and Coal Products Manufacturing - There was one change from the 1987 industry structure for this sector.

- Coke ovens, not operated with a blast furnace transferred from 1987 Industry Code 3312, Blast Furnaces and Steel Mills to the 1997 Other Petroleum and Coal Products, NEC.

The number of 1997 petroleum and coal products industries remains unchanged at five from 1987. For time series linkage, all five 1987 industries are comparable within three percent of the 1997 industries.

2. Chemicals Manufacturing - There were five new industries added to the 1997 industry structure for this industry subsector. New industries were created for:

- Petrochemicals Manufacturing from parts of 1987 Industry Code 2865, Cyclic Crudes and Intermediates and 1987 Industry Code 2869, Industrial Organic Chemicals, NEC.
- Organic Dyes and Pigments Manufacturing from part of old Industry Code 2865, Cyclic Crudes and Intermediates.
- In-Vitro Diagnostic Substances Manufacturing from part of old Industry Code 2835, Diagnostic Substances.
- Photographic Films, Papers, Plates, and Chemicals Manufacturing from part of 1987 Industry Code 3861, Photographic Equipment and Supplies.
- Custom Compounding Purchased Resins Manufacturing transferred from the 1987 Major Group Code 30, Rubber and Plastic Products.

Two activities transferred out of 1987 Major Group Chemicals and Allied Products.

- Alumina transferred from 1987 Industry Code 2819, Industrial Inorganic Chemicals, NEC into Primary Aluminum Manufacturing.
- Ethyl Alcohol transferred from 1987 Industry Code 2869, Industrial Organic Chemicals into Distilled and Blended Liquors Manufacturing.

Two activities transferred into the 1997 Chemicals Manufacturing.

- Drawing ink and India ink transferred from old Industry Code 3952, Lead Pencils and Art Goods into Printing Ink Manufacturing.

- Matches transferred from old Industry Code 3999, Manufacturing Industries, NEC into All Other Miscellaneous Chemical Preparations.

Also, there were several activities that transferred within the chemical industry. The number of chemical industries increased from 29 in 1987 to 34 in 1997. For time series linkage, 25 of the 29 1987 industries are comparable within three percent of the 1997 industries.

3. Rubber and Plastics Products Manufacturing - There were six new industries added to the 1997 industry structure for this industry subsector.

- Tire Rebuilding and Repair transferred from the 1987 Services Major Group Code 75, Auto Repair, Services, and Parking.
- Unsupported Plastics Packaging Films and Sheets Manufacturing from part of 1987 Industry Code 2671, Paper Coated and Laminated, NEC.
- Unsupported Plastics Bags from part of 1987 Industry Code 2673, Bags: Plastics, Laminated, and Coated.
- Polystyrene Foam Products from part of 1987 Industry Code 3086, Plastics Foam Products.
- Urethane Foam Products from part of 1987 Industry Code 3086, Plastics Foam Products.
- Resilient Floor Coverings from parts of 1987 Industry Code 3069, Fabricated Rubber Products, NEC and 1987 Industry Code 3996, Hard Surface Floor Coverings, NEC.

Three industries were removed from this industry group.

- Rubber and Plastics Footwear transferred into the 1997 NAICS Industry Subsector, Leather and Allied Products Manufacturing.
- Gaskets, Packings, and Sealing Devices were deleted and the products were split into various residual industries by material.
- Custom Compounding Purchased Resins transferred into the 1997 NAICS Industry subsector, Chemicals Products Manufacturing.

One activity transferred out of the 1987 Major Group, Rubber and Plastics Products.

- Rubberized Fabric transferred from the 1987 Industry Code 3069, Fabricated Rubber Products, NEC to 1997 NAICS Industry, Coated Fabric Mills including Rubberized Fabric Mills.

Also, there were several activities that transferred within the rubber and plastics products industries. The number of rubber and plastics products industries increased from 15 in 1987 to 17 in 1997. For time series linkage, 13 of the 15 1987 industries are comparable within three percent of the 1997 industries.