In 1947, Canada's export of acids amounted to $3,712,611 chiefly acetic and sulphuric. Imports were valued at $3,510,121 with tartaric, acetic, citric, salicylic, boracic and stearic as the principal items.

Cyanamide, Cyanide and Carbide.—The first Canadian works to make calcium carbide was erected at Merritton, Ont., in 1897, electricity being obtained from power stations on the nearby Welland Canal. Later a plant was erected at Ottawa, and in 1903 the Shawinigan Carbide Company completed its furnaces at Shawinigan Falls, Que., to utilize the newly developed power at that point. About 1912, these three companies amalgamated to form the Canada Carbide Company, and the units at Merritton and Ottawa were later dismantled. In 1927, the Canada Carbide Company and the Canadian Electro Products Company, Limited, were consolidated into the Shawinigan Chemicals, Limited. The capacity of this works was expanded considerably during the Second World War.

Another carbide plant is operated at Welland, Ont., by the Electro Metallurgical Company of Canada, Limited. This Company and the Shawinigan Chemicals, Limited, are the only concerns making carbide for sale.

At Niagara Falls, Ont., the North American Cyanamid, Limited, operates a huge cyanamide works, probably the largest of its kind in the world. Started in 1909 with an initial capacity of 5,000 tons annually, the subsequent additions and improvements had brought the pre-war capacity to 355,000 tons. This tremendous tonnage was secured through the operation of what was, at that time, the largest lime-burning plant in the world, the largest carbide furnaces and the largest liquid air plant for the preparation of pure nitrogen. The calcium cyanamide, which is made by absorbing nitrogen in calcium carbide at white heat, is used as a fertilizer and a large part of the production is exported. Quite a large proportion of the output, however, is used by the Company to make cyanide for use by the Canadian mining industry or for export, also as a material for certain war chemicals. Sodium silicate has been produced in this works since 1932.

Ammonia.—Ammonia and its compounds were in heavy demand for war uses and facilities for increased capacity involved major expenditures in the war years. At the outbreak of the Second World War synthetic ammonia was being made at Trail, B.C., for use in nitrogen fertilizers, and at Windsor, Ont., for use mainly for the manufacture of blasting explosives; aqua ammonia and anhydrous ammonia were recovered from gas liquor by Canadian Industries, Limited, in a plant at Toronto, Ont. War requirements brought expansion to the original Trail, B.C., facilities as well as a new Government-owned unit at that point, a new plant at Calgary, Alta., operated by Alberta Nitrogen Products, Limited, on behalf of the Government, and a new works near Welland, Ont., also built for the Government but operated by the Welland Chemicals, Limited. The Calgary works is unique in that it uses natural gas as its primary material; at Welland, the coke process is used. All of these works made anhydrous ammonia and ammonium nitrate. In 1943, when war demands slackened and a shortage of fertilizer developed in the United States and Canada, steps were taken to utilize the excess ammonium nitrate capacity to provide a material suitable for fertilizer. This was made possible by a research program which resulted in the making of a prilled or pebbled form of ammonium nitrate properly conditioned to render it free flowing when used. Practically all of the output is now marketed in this form, chiefly for export to the United States to ease the fertilizer situation in that country.