Gross Sales: 1984 - \$20M (Projected)

Plant Size: 110,000 sq ft

**Equipment:** Ernst Leitz' equipment include – In-house HP computing hardware, Eros IV MTF measuring bench, environmental test facilities, CNC machining centers, full set of optical measuring equipment including Tropel digital measuring interferometer, microprocessor controlled coating chambers, and Leitz 3-axis coordinate measuring machine.

**Experience:** Ernst Leitz' experience is outlined in three different areas:

Photography/Reconnaissance – design and manufacture of the Leica M camera and a family of photographic lenses for the Leica M and R cameras; production of cameras for instrumentation and event recording; design and manufacture of lenses used in underwater applications for military and commercial applications; and design and fabrication of lenses used in aerial reconnaissance, earth resources and space application with focal lengths from 18mm to 900mm.

Custom Commercial Assemblies and Systems – optics for optical data storage, x-ray equipment, image intensifiers and microfilm systems; and complex periscope viewing systems for use in high radiation nuclear environments.

Other Military Applications – design and manufacture of visual and infrared assemblies for guidance and fire control applications; binoculars, rifle sights, weapon sights, rangefinders; and HUD and HDD optics.

Keywords: 1 = Aircraft; 2 = Armament; 3 = Avionics; 10 = Image Processing & Optics; 13 = Missiles; 18 = Space Systems; 20 = Miscellaneous; Optics Visual = 1, 2, 3, 10, 13, 18; Optics Infrared = 1, 2, 3, 10, 13, 18; Electro-optics = 1, 2, 3, 10, 13, 18; Photography = 1, 2, 3, 10; Lenses (reconnaissance) = 1, 10; Lenses (underwater) = 10; Fire Control Optics = 1, 2, 10, 13; Remote Sensing = 1, 2, 10, 18; Sights = 1, 2, 10, 13; Optio-mechanical Precision Assemblies = 1, 2, 3, 10, 13, 18; Optical Research & Development = 1, 2, 3, 10, 13, 18, 20; Optical Coatings = 1, 2, 3, 10, 13, 18.

Revised: Dec 83

## **EXPLOSAFE AMERICA Inc**

Code: EXP

Address: 230 New Toronto St

Toronto, Ontario, Canada M8V 2E8

Contact: Mr. Paul B Malloy, Military Sales - (416) 255-9193

History: Explosafe America Inc was formed in 1973 to handle the design, research & development, manufacture, and sale of the "Explosafe" Engineered Explosion Prevention System. Under the guidance of its engineering and technical staff, the "Explosafe" system underwent all the development, qualification testing, and evaluation cycles attendant to obtaining the USAF Wright Aeronautical Laboratories product approval documented in Report #AFWAL-TR-80-2043, and subsequently supported by specification MIL-B-87162 (USAF) with vendor sourcing as identified in Qualified Products Listing QPL 87162-1 issued in Apr 82.

Capability: "Explosafe" is a practical method of preventing containers of volatile liquids and gases (i.e., gasoline, naphtha, diesel, liquid petroleum gas (LPG), benzene) from explosion resulting from electrostatic discharge, fire bombing, gunfire, or post crash ignition, etc. The "Explosafe" system is based on a matrix of aluminum foil, slit and expanded to form a mesh of hexagonal openings. When layered, the mesh results in

an open-cell batt, cut and shaped into modules for incorporation into any sized container. By installing "Explosafe", the container's interior is transformed into a honeycomb of small cells or compartments. In the event of ignition, the "Explosafe" system acts as a heat dissipator, modifies flame propagation, and prevents explosion. Explosafe salient features include:

- Displaces maximum one percent of fuel capacity for any given volume.
- System is passive therefore offers permanent life time installation capability low life cycle cost.
- Dissipates static electricity.
- Does not sustain fire and does not emit toxic fumes.
- Designed in modular form, facilitates retrofit in old or new fuel tank installations.
- Provides radical reduction of fuel slosh and facilitates elimination of fuel baffles.
- · Facilitates reduction of tank stress and failure.

Average Work Force: Total - 35

Gross Sales: 1981 - \$38.5M

Plant Size: 30,000 sq ft

**Equipment:** Explosafe's modern facility is equipped with machinery of proprietary design to slit, expand, fanfold, stitch, and shape modular kits of "Explosafe" for all fuel tank shapes and sizes.

**Experience:** Through the past five years, Explosafe has participated with the Canadian Government/USAF evaluation of the aircraft fuel tank ullage explosion prevention system of "Explosafe". This effort has resulted in test/evaluation completion as documented in report #AFWAL-TR-80-2043. This has subsequently substantiated by US Government specification MIL-B-87162 and borne out by Qualified Products Listing QPL-87162-1.

Through prototype and production contracts, Explosafe has been included in the following vehicles – FMC – M113, LVTP-7A1; Cadillac Gage – "Peacekeeper"; Bombardier – Canadian Armed Forces two and one half ton military vehicle; Navy Sea Fox; and numerous others.

**Keywords:** 1 = Aircraft; 14 = Protective Equipment; 16 = Security & Safety; 20 = Miscellaneous; Explosion Suppression Systems = 1, 14, 16, 20; Explosafe = 1, 14, 16, 20.

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## **EXPRO CHEMICAL PRODUCTS Inc**

Code: ECP

Address: P. O. Box 5520

Valleyfield, Quebec, Canada J6S 4V9

Contact: Mr. J A MacGregor, Director of Marketing – (514) 371-5520

History: Expro Chemical Products Inc (formerly Valleyfield Chemical Products Corp) was started in 1940 and has been operating continuously ever since. The complex has undergone two multi-million dollar modernization programs – the first in 1950-1952 and the second in 1977-1978. It was incorporated under the former name in 1977. The company changed ownership on 15 March 1982. Because of the new