

MATERIAL SAFETY
DATA SHEET

Product Name: Work Zone / Gap Stop Bulk Foam (Cylinder) Systems
Product Code: GS10LB (02011), GS16LB (02012)

Section I - Company Information

Date Prepared: January 1, 2015

Company:	ICB Products 75 Chambers Drive, Unit 9 Ajax, Ontario, L1Z 1E1 Canada	Information Tel. No. (905) 619-0115 Emergency Tel. No. (905) 619-0115
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Generic Description:	Product is a liquid urethane prepolymer mixture that is packaged under pressure (Non-Flammable Compressed Gas Blend).
Material usage:	Sealant and Adhesive.

Section II - Hazardous Chemical Ingredients/Identity Information

<u>Chemical Name (common names)</u>	<u>CAS Number</u>	<u>Percentage</u>	<u>LD₅₀</u>	<u>LC₅₀</u>
Fluorocarbon (Non-Flammable Compressed Gas) Non-fully halogenated blend	Not Available This Section	10 - 30 %	N/A	N/A
4,4' – Diphenylmethane Diisocyanate (MDI)	101-68-8	7 - 13 %	N/A	N/A
Higher Oligomers of MDI (Polymeric MDI)	9016-87-9	7 - 13 %	N/A	N/A

(NOTE: See Section 8 of this MSDS for Exposure Guidelines)

Section III - Hazards Identification

Physical Hazards

Since the containers are pressurized, storage temperature should not exceed 120°F (49°C) in order to avoid excessive pressure build-up and possible container rupture. Also, the foam has strong adhesive-like characteristics and will adhere to skin and other surfaces. If accidental foam contact occurs, follow the appropriate first-aid procedure described in Section 4 of this MSDS.

Potential Health Effects

The primary adverse health effects of this material are related to the Polymeric Isocyanate (MDI) component, and, to a lesser degree, the Fluorocarbon (Non-Flammable Gas) component. Therefore, adequate ventilation should be provided to avoid exceeding the exposure limits of these components (See Section 8). The likelihood of exceeding these limits are low due to the low concentration of vapor produced during normal use. However, if used indoors, mechanical ventilation or exhaust should be provided during use and until foam is cured.

Entry Route: Effects of Overexposure

Inhalation: May irritate mucous membranes with tightness in chest, coughing, or allergic asthma-like sensitivity. Extensive overexposure can lead to respiratory symptoms like bronchitis and pulmonary edema. These effects are usually reversible.

Overexposure to fluorocarbon may cause lightheadedness, headaches, or lethargy. Persons with cardiac arrhythmia may be at increased risk in severe exposure.

Section III - Hazards Identification, continued

Skin: May cause localized irritation, reddening or swelling. Prolonged or repeated exposure may lead to sensitization and/or dermatitis.

Eyes: May be irritating to eyes. Foam contact can cause physical damage due to adhesive character.

Ingestion: May cause irritation of mucous membranes in the mouth and digestive tract.

Section IV - First Aid Measures

Inhalation: If breathing difficulty is experienced, move to area free of exposure. Provide fresh air. If necessary, provide oxygen or artificial respiration by trained personnel and obtain medical attention.

Eye Contact: Flush with clean water for at least 15 minutes and obtain medical attention.

Skin Contact: Use a rag to remove excess foam from skin and remove contaminated clothing. Use of a mild solvent, such as acetone (nail polish remover) or mineral spirits, may help in removing uncured foam residue from clothing or other surfaces (avoid eye contact). Cured foam may be physically removed by persistent washing with soap and water. If irritation develops, use mild skin cream. If it persists, obtain medical attention.

Ingestion: Do not induce vomiting. Drink 1-2 glasses of water or milk. Consult physician. Do not give anything orally to an unconscious person.

Section V – Fire Fighting Measures

High temperatures will raise the pressure in the containers, which may lead to rupturing. Extinguishing media include: dry chemical, carbon dioxide, halon 1211, chemical foam, or water spray if used in large quantities (water contamination will produce carbon dioxide). Wear self-contained breathing apparatus to protect against toxic decomposition by-products, including CO, CO₂, NO, and traces of HCN, HF or HCL. Cured foam is organic and, therefore, will burn in the presence of sufficient heat, oxygen and ignition source.

Section VI - Accidental Release Measures/Disposal Considerations

Provide adequate ventilation and wear recommended protective clothing (gloves, safety goggles, long sleeve work clothes). Uncured foam is very sticky, so carefully remove the bulk of the foam by scraping it up and then immediately remove residue with a rag and solvent such as mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the foam has cured, it can only be removed physically by scraping, buffing, etc. Dispose as plastic waste (foam plastic) in accordance with all applicable guidelines and regulations.

Before disposing of containers, relieve container of any remaining foam and pressure. Allow foam to fully cure before disposing.

Section VII - Handling and Storage

Store in a cool, dry place. Ideal storage temperature is 60°F to 80°F (15.5°C to 26.6°C). Storage above 90°F (32.2°C) will shorten the shelf life. Protect containers from physical abuse. Protect unused product from freezing.

Section VIII - Exposure Controls / Personal Protection

Read all product instructions before using. Personal protective equipment should include safety eye wear, chemical resistant gloves, and long sleeve work clothes. Adequate ventilation should also be employed so that vapor levels do not exceed recommended guidelines. If vapor levels are expected to exceed these guidelines, use NIOSH/MSHA approved, positive pressure, supplied air respirator. Exercise good personal hygiene, wash thoroughly after each use.

Section VIII - Exposure Controls / Personal Protection, continued

<u>Exposure Guidelines</u>	<u>OSHA</u>	<u>ACGIH</u>
4,4' – Diphenylmethane Diisocyanate (MDI)	.020 ppm ceiling .200 mg/m ³ ceiling	.005 ppm TWA .051 mg/m ³ TWA
Higher Oligomers of MDI	None Established	None Established
Fluorocarbon (Non-Flammable HCFC)	1,000 ppm TWA	1,000 ppm TWA

(None of the components in this product are listed by IARC, NTP, OSHA or ACGIH as a carcinogen).

Section IX - Physical and Chemical Properties

Physical Appearance:	Viscous liquid which foams upon release from container as an off-white to yellowish froth.
Odor:	Slight fluorocarbon odor during curing stage
Specific Gravity:	Approximately 1.2 (H ₂ O = 1)
Boiling Point:	Fluorocarbon component (Non-Flammable Gas) boils at less than 0°F (-17.7°C). Other components boil at temperatures greater than 200°F (93.3°C).
Flash Point:	Product flash point has been tested at approximately 800°F (426.6°C).
Vapor Pressure:	Contents under pressure have vapor pressure greater than 50 psig (345 Kpa). After release from container, vapor pressure is very low (not determined).
Solubility in Water:	Insoluble, reacts slowly with water during cure; liberating traces of CO ₂ .
Explosion Data:	Contents are not known to be sensitive to mechanical impact or static discharge.

Section X - Stability and Reactivity Data

This product is considered stable under normal and anticipated storage and handling conditions. Do not store above 120°F (49°C). For longest shelf life, avoid storage above 80°F (26.6°C). Avoid alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts).

17

Section XI - Transportation Information

Shipping Information
Containers Greater Than 1000 cu. cm. (1 liter), i.e. 10Lb., 16Lb.

<i>Ground</i>	Compressed Gas n.o.s. (Fluorocarbon) 2.2 UN 1956 (Non-flammable Gas Label)
<i>Air</i>	Compressed Gas (Fluorocarbon) 2.2 UN 1956 (Non-flammable Gas Label)
<i>Water</i>	Compressed or Liquefied Gases n.o.s. (Fluorocarbon) 2.2 UN 1956 (Non-flammable Gas Label) IMDG page # 2124
<i>Exceptions</i>	N/A

ICB Products

*Work Zone / Gap Stop Bulk Foam (Cylinder) Systems
10 Lb. & 16 Lb. sizes*

Note Emergency Response Guide Numbers – Compressed Gas # 126.

Section XII - Regulatory Information

Toxic Substances Control Act (TSCA)/Designated Substances List (DSL):

All ingredients are listed on the TSCA inventory, as well as the Canadian Designated Substances List.

SARA Title III:

Contains Diphenylmethane Diisocyanate (CAS #101-68-8) and Chlorodifluoromethane (CAS #75-45-6) which are subject to the reporting requirements of SARA Title III.

Proposition 65

Based on information currently available, this product is not known to contain detectable amounts of any chemicals currently listed under California Proposition 65.

Section XVI - Other Information

NFPA: **Fire 1; Health 2; Reactivity 1**

HMIS: **Flammability 1; Health 1; Reactivity 1**

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