



DOLPHIN PU FOAM

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Details

Product Name : Dolphin PU Foam
Recommended Use : Gap-filling PU Foam

Company Details

Company Name : Al Muqarram Insulation Materials Industry L.L.C.
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2. HAZARDS IDENTIFICATION

Physical Hazards Since the containers are pressurized, storage temperature should not exceed 50°C (122°F) in order to avoid excessive pressure build-up and possible container rupture. Also, the product has strong adhesive-like characteristics and will adhere aggressively to skin and other surfaces. If accidental contact occurs, follow the appropriate first-aid procedure described in Section IV of this MSDS.

Potential Health Effects The primary adverse health effects of this product are related to the Polymeric Isocyanate (MDI) component, and, to a lesser degree, the Fluorocarbon (Nonflammable Gas) component. Therefore, adequate ventilation should be provided to avoid exceeding the exposure limits of these components. 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 product 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.

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

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

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No.	%W	CHEMICAL NAME	LD ₅₀	LC ₅₀
75-45-6	10 – 30	Fluorocarbon (Non-Flammable) Compressed Gas, HCFC	N/A	N/A
101-68-8	5 – 10	4,4' – Diphenylmethane Diisocyanate (MDI)	N/A	N/A
9016-87-9	5 – 10	Higher Oligomers of MDI (Polymeric MDI)	N/A	N/A



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Not available in this section	60 – 100	Urethane Pre-polymer Blend (Non-Hazardous Proprietary Blend)	N/A	N/A
<ul style="list-style-type: none"> Product is a liquid urethane prepolymer mixture that is packaged under pressure (NonFlammable Compressed Gas). Containers should not be heated above 50°C (122°F) to avoid excessive pressure buildup. 				

4. 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.
Skin Contact	: Use a rag to remove excess foam from skin and remove contaminated clothing. Use of a 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 irritation persists, obtain medical attention.
Eye Contact	: Flush eyes with water for 15 minutes. Get medical attention
Ingestion	: Drink 1 to 3 glasses of water and seek immediate medical attention. Never give anything orally to an unconscious person.
Note to Physician	: Treatment is symptomatic.

5. FIRE FIGHTING MEASURES

High temperatures will raise the pressure in the containers, which may lead to rupturing. Extinguishing media include: dry chemical, carbon dioxide, 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. Cured foam is organic and, therefore, will burn in the presence of sufficient heat, oxygen and an ignition source. Main hazards associated with burning foam are similar to burning of other organic materials (wood, paper, cotton, etc.) and precautions against exposure should be taken accordingly. Avoid welding or other "hot work" in the vicinity of exposed cured foam.

6. ACCIDENTAL RELEASE MEASURES

Read all product instructions before using. Personal protective equipment should include impervious gloves, protective eyewear, and suitable work clothes. Uncured product 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 polyurethane cleaner, mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the product has cured, it can only be removed physically by scraping, buffing, etc.

7. HANDLING AND STORAGE

Store in a cool, dry place. Ideal storage temperature is +18°C to 25°C (64.4°F to 77°F). Storage above 40°C (104°F) will shorten the shelf life. Storage below 10°C (50°F) may affect foam quality if chemicals are not warmed before using.
Protect containers from physical abuse. Protect unused product from freezing.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Read all product instructions before using. Personal protective equipment should include (impervious gloves, protective eye wear and suitable 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 approved, positive pressure, supplied air respirator or a negative pressure half mask with organic vapor cartridges and dust/mist pre-filters. Exercise good personal hygiene, wash thoroughly after each use.

Exposure Guidelines	OSHA	ACGIH
4,4' – Diphenylmethane Diisocyanate (MDI)	0.020 ppm ceiling 0.200 mg/m ³ ceiling	0.005 ppm TWA 0.051 mg/m ³ TWA
Higher Oligomers of MDI	None Established	None Established
Fluorocarbon (Non-Flammable Compressed Gas, HCFC)	None Established	None Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : Physical Appearance: Viscous liquid which foams upon release from container as an off-white to yellowish froth. (Note; Appearance may differ with the introduction of a dye or colorant).

Properties

Odor : Slight fluorocarbon odor during curing stage

Specific Gravity @ 25°C : Approximately 1.2 (H₂O = 1)

Boiling Point (°C) : Fluorocarbon (Non-Flammable Compressed Gas, HCFC) boils at -18°C (-0.4°F). Other components boil at temperatures greater than 100°C (33.8°F).

Flash Point (°C) : Product flash point has been tested at approximately 426°C (798.8°F).

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 CO₂.

Explosion Data : Contents are not known to be sensitive to mechanical impact or static discharge.

10. STABILITY AND REACTIVITY

This product is considered stable under normal and anticipated storage and handling conditions. Do not store above 49°C (120°F). For longest shelf life, avoid storage above 30°C (86°F). Avoid alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts).

11. TOXICOLOGICAL INFORMATION

Contains diphenylmethane-4,4'-diisocyanate (MAK-value 0,005 ppm). May cause sensitization by inhalation and skin contact. Avoid repeatedly contact or contact for a longer time. People with isocyanate allergy should not be in contact with the content. In case of very sensitive persons low concentrations can cause asthmatic reactions.



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12. ECOLOGICAL INFORMATION

Biodegradation	: Not Established
Chemical degradation	: Not Established
Bioaccumulation	: Not Established
Agility	: Not Established
Toxicity influence on Organisms	: Not Established
Toxicity in water	: Not Established
Other toxicity	: Not Established

13. DISPOSAL CONSIDERATIONS

Dispose as per local government regulations.

14. TRANSPORT INFORMATION

Shipping Information:

Ground	: PU Foam
Air	: UN 1950, Flammable 2.1 (Flammable Gas Label)
Water	: UN 1950, Class 2.1

15. REGULATORY INFORMATION

Risk Phrases

R12	: Extremely flammable.
R18	: In use, may form flammable/explosive vapor-air mixture.
R20	: Harmful by inhalation.
R36/37/38	: Irritating to eyes, respiratory system and skin.
R42/43	: May cause sensitization by inhalation and skin contact

National

Legislation/Regulations:

: COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

16. OTHER INFORMATION

General Information

This product should be used as directed. For further information, please consult product data sheets and application information bulletin for this product.

Further Information

The above information is accurate to the best of our knowledge. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, Al Muqarram Insulation Materials Industry, LLC makes no warranty, either express or implied, with respect to the completeness or



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continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. User should satisfy himself that he has all current data relevant to his particular use.

Revision Comments

This safety data sheet supersedes all previous issues and users are cautioned to ensure that it is correct.