

MATERIAL SAFETY DATA SHEET

Date Issued: 08/28/2007
 MSDS No: 43100
 Date Revised: 01/29/2010
 Revision No: 2

Expanding Foam**1. PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: Expanding Foam

MANUFACTURER

Geocel, LLC
 P.O. Box 398
 Elkhart, IN 46515-0398
Product Stewardship: 574-264-0645

24 HR. EMERGENCY TELEPHONE NUMBERS

ChemTel - 800-255-3924

2. HAZARDS IDENTIFICATION**POTENTIAL HEALTH EFFECTS**

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.

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.

COMMENTS HEALTH: The primary adverse health effects of this product 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 product is cured.

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 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 4 of this MSDS.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS	EINECS
Fluorocarbon (Non-Flammable Compressed Gas, HCFC)	10 - 30	75-45-6	
Methylene Disphenyl Isocyanate	5 - 10	101-68-8	202-966-0
Polymeric Isocyanates	5 - 10	9016-87-9	- -
Urethane Pre-polymer Blend (proprietary non-hazardous)	60 - 100	N/A	

4. FIRST AID MEASURES

EYES: Immediately flush with plenty of water for at least 15 minutes, holding eyelids open at all times. Get medical attention immediately.

SKIN: 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 and 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.

INGESTION: Drink 1 to 3 glasses of water and seek medical attention. Never give anything orally to an unconscious person.

INHALATION: Move individual to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: (800°F)

FLAME PROPAGATION OR BURNING RATE OF SOLIDS: Cured foam is organic and 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.

EXTINGUISHING MEDIA: Dry chemical, carbon dioxide, Halon 1211, chemical foam, or water spray if used in large quantities (water contamination will produce carbon dioxide).

OTHER CONSIDERATIONS: Avoid welding or other hot work in vicinity of exposed cured foam.

FIRE FIGHTING EQUIPMENT: Standard protective fire fighting clothing and breathing apparatus.

SENSITIVE TO STATIC DISCHARGE: Not expected to be sensitive to static discharge.

SENSITIVITY TO IMPACT: Not expected to be sensitive to impact.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Wearing personal protective equipment designated in Section 8, scrape up uncured foam and remove residue with a rag and solvent such as polyurethane cleaner, mineral spirits, acetone, paint thinner, etc. Once the product has cured, it can only be removed physically by scraping, buffing, etc.

LARGE SPILL: Wearing personal protective equipment designated in Section 8, scrape up uncured foam and remove residue with a rag and solvent such as polyurethane cleaner, mineral spirits, acetone, paint thinner, etc. Ventilate well while clean up is in process and until fumes dissipate. Once the product has cured, it can only be removed physically by scraping, buffing, etc.

RELEASE NOTES: Before disposing of container, relieve container of any remaining foam and pressure. Allow product to fully cure before disposing. Never discard in a liquid state.

7. HANDLING AND STORAGE

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. Storage below 55°F (12.7°C) may affect foam quality if chemicals are not warmed before using. Protect containers from physical abuse. Protect unused product from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)			
		EXPOSURE LIMITS	
		ACGIH TLV	
Chemical Name		ppm	mg/m ³
Methylene Disphenyl Isocyanate	TWA	0.005	0.051

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields or goggles when handling this material.

SKIN: Chemical resistant protective gloves are recommended.

RESPIRATORY: If vapor levels are expected to exceed recommended guidelines, use NIOSH approved, positive pressure, supplied air respirator or a negative pressure half mask with organic vapor cartridges and dust/mist pre-filters.

WORK HYGIENIC PRACTICES: Wash hands thoroughly after each use, especially before eating or smoking. Good personal hygiene practices should always be followed.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Slight fluorocarbon odor during curing stage.

APPEARANCE: Viscous liquid which foams upon release from container.

VAPOR PRESSURE: > 50 psig

BOILING POINT: Fluorocarbon boils at 0°F (-17.7°C). Other components boil at temperatures greater than 200°F (93.3°C).

FLASHPOINT AND METHOD: (800°F)

SOLUBILITY IN WATER: Insoluble, reacts slowly with water during cure; liberating traces of CO₂.

SPECIFIC GRAVITY: ~ 1.200 (water=1)

(VOC): Based on the current EPA definition of volatile organic compound, this product does not have any V.O.C. content.

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID: Avoid alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts).

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Irritating to the eyes.

SKIN EFFECTS: Irritating to the skin.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No environmental studies have been carried out on this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

OTHER SHIPPING INFORMATION: Generators must consult DOT laws and regulations to ensure the product is being transported appropriately.

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: This product poses the following physical and health hazard(s) as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986:

FIRE: Yes **PRESSURE GENERATING:** Yes **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: This product contains the following chemical(s) subject to reporting under SARA Title III Section 313: CAS #101-68-8 Methylene Bisphenyl Isocyanate and CAS #75-45-6 Fluorocarbon (HCFC).

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt. %	CAS
Fluorocarbon (Non-Flammable Compressed Gas, HCFC)	10 - 30	75-45-6
Methylene Disphenyl Isocyanate	5 - 10	101-68-8
Polymeric Isocyanates	5 - 10	9016-87-9

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt. %	CERCLA RQ
Methylene Disphenyl Isocyanate	5 - 10	5,000

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Fluorocarbon (Non-Flammable Compressed Gas, HCFC)	75-45-6
Methylene Disphenyl Isocyanate	101-68-8
Polymeric Isocyanates	9016-87-9

CALIFORNIA PROPOSITION 65: This product does not contain any chemicals on California's Proposition 65 List.

16. OTHER INFORMATION

PREPARED BY: Technical Staff

REVISION SUMMARY: Revision #: 2. This MSDS replaces the September 30, 2008 MSDS.

NFPA STORAGE CLASSIFICATION: Health 2, Flammability 1, Physical Hazard 1

HMIS RATINGS NOTES: Health 2, Flammability 1, Physical Hazard 1, PPE B or E