TWO-COMPONENT A-COMPONENT

(Includes Quick Cure, Slow Rise, E-84 Class 1, Mining and High Density)

A16178-A

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M A T E R I A L S A F E T Y D A T A S H E E T

1. IDENTIFICATION

Chemical Product

A-Component for Two-Component Polyurethane Foam System

Manufacturer

FOMO PRODUCTS, INC.
P. O. Box 1078
Norton, Ohio 44203

Emergency Overview

Product Information: 1-800-321-5585. In Ohio and outside the United States call (330) 753-4585
Transportation Emergency: CHEMTREC 1-800-424-9300. Two-Component A-Component is registered by the manufacturer, FOMO PRODUCTS, INC.
International Transportation Emergency: CHEMTREC (703) 527-3887

Product is a urethane foam component that contains a liquified compressed gas blowing agent (Non-Flammable Compressed Gas). Containers should not be heated above 120°F (49°C) to avoid excessive pressure build-up.

2. COMPOSITION

Chemical Name (common names)	CAS Number	Percentage	LD_{50}	LC_{50}
1,1,1,2- Tetrafluoroethane (Non-Flammable Compressed Gas, HFC, Fluorocarbon) 134a	811-97-2	5 to 10 percent	NA	NA
4,4' - Diphenylmethane Diisocyanate (MDI)	101-68-8	30 to 60 percent	NA	NA
Higher Oligomers of MDI (Polymeric MDI)	9016-87-9	30 to 60 percent	NA	NA

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

3. HAZARDS IDENTIFICATION

Physical Hazards

Storage temperature should not exceed 120°F (49°C) in order to avoid excessive pressure build-up and possible release of contents. Also, MDI will react with water to form CO_2 and water insoluble polyureas. This reaction may be vigorous at elevated temperatures, and could cause dangerous pressure build-up in tightly sealed containers. Liquid contents froth when released from containers. A-Component has strong adhesive characteristics. If accidental 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 product are related to the Polymeric Isocyanate (MDI) component, and, to a lesser degree, the Fluorocarbon (134a) component. Therefore, adequate ventilation and respiratory protection should be provided to avoid exceeding exposure limits listed in Section 8 of this MSDS. Spraying MDI as a mist during application may increase vapor levels of this material.

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 1,1,1,2 - Tetrafluoroethane may cause lightheadedness, headaches, or lethargy. Persons with cardiac arrhythmia may be at increased risk in severe exposure.

Eyes: May be irritating to eyes. MDI 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.

4. FIRST AID

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 liquid 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). May cause mild irritation or temporary darkening of skin. Persistent washing with soap and water will eventually remove all residue. If irritation persists, obtain medical attention.

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

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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, 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, CO_2, 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/DISPOSAL CONSIDERATIONS

Wear skin, eye and respiratory protection. Soak up material with absorbent and shovel into chemical waste container. Loosely cover container and remove from work area. Decontaminate waste and spill area with a solution of 0.2 – 0.5% liquid detergent and 3 – 8% concentrated ammonium hydroxide in water (5 – 10% sodium bicarbonate may be substituted for ammonium hydroxide). Use 10 parts of solution for each part of the spill and allow to react for at least 10 minutes. Allow loosely covered container to stand for several days before disposing in accordance with all applicable federal, state and local regulations.

Liquid residues may be mixed slowly with equal amounts of B-Component in a well ventilated area in order to form solid, low grade foam, which in most cases can be disposed of as a solid in normal waste streams. Never discard in a liquid state. Undamaged cylinders are returnable by following manufacturer's instructions and all regulatory requirements.

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

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)	.020 ppm ceiling .200 mg/m^3 ceiling	.005 ppm TWA .051 mg/m^3 TWA
Higher Oligomers of MDI	None Established	None Established
1,1,1,2 - Tetrafluoroethane (Non-Flammable Compressed Gas, HFC Fluorocarbon 134a)	None Established	None Established

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Appearance	:	Amber to dark brown liquid. Froths to an off white to yellowish color when released from container. (Note; Appearance may differ with the introduction of a dye or colorant).
Odor	:	Slight musty odor
Specific Gravity	:	Approximately 1.2 (H_2O = 1)
Boiling Point	:	1,1,1,2 - Tetrafluoroethane (Non-Flammable Compressed Gas, HFC Fluorocarbon 134a) boils at -15°F (-26°C). MDI boils at 406°F (208°C).
Flash Point	:	1,1,1,2 - Tetrafluoroethane (HFC 134a); none. MDI; 390°F (199°C).
Vapor Pressure	:	Contents under pressure have vapor pressure greater than 50 psig/345 kPa. For MDI liquid less than 10 mm Hg at 77°F (25°C).
Solubility in Water	:	Insoluble, reacts slowly with water to liberating traces of CO_2.
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 120°F (49°C). For longest shelf life, avoid storage above 90°F (32.2°C). Avoid alcohols, strong bases or amines and metal compounds (such as small particle metal catalysts). Avoid contamination with water.

11. TRANSPORTATION

Shipping Information

	Containers Less Than 1000 cu. cm. (1 liter)	Containers Greater Than 1000 cu. cm. (1 liter)
Ground	Consumer Commodity ORM-D (On Shipper Carton) Consumer Commodity Two-Component A-Component (On Shipping Document)	UN1956 Compressed Gas n.o.s. (Fluorocarbon) 2.2 (Non-Flammable Gas Label)
Air	UN 1950 Aerosols, Non-Flammable 2.2 (Non-flammable Gas Label)	UN1956 Compressed Gas n.o.s. (Fluorocarbon) 2.2 (Non-flammable Gas Label)
Water	UN1950 AEROSOLS , (Limited Quantity) Class 2	UN1956 COMPRESSED GAS N.O.S (Fluorocarbon) 2.2
Exceptions	N/A	
Note	Emergency Response Guide Numbers - Consumer Commodity # 171. For Aerosols and Compressed Gas # 126.	

12. REGULATORY

Toxic Substances Control Act (TSCA)/Domestic Substances List (DSL):
All ingredients are listed on the TSCA inventory, as well as the Canadian Domestic Substances List.

SARA Title III:
Contains Diphenylmethane Diisocyanate (CAS #101-68-8) which is subject to the reporting requirements of SARA Title III. Applicability must be determined by end user.

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.

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

13. OTHER

NFPA: Fire 1; Health 3; Reactivity 1
HMIS: Flammability 1; Health 3: Reactivity 1

The information and recommendations set forth herein are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving it will make their own determination as to its suitability for their purposes prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, of merchantability or fitness for a particular use are made hereunder with respect to this information or the product to which information refers.

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APPROVED BY : T. EBERLING
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