

GLENDO LLC

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

MATERIAL NAME: ALUMILITE SUPER PLASTIC (TAN)

TRADE NAME: Alumilite Super Plastic (Tan)
PART NUMBERS: 022-068
DISTRIBUTOR'S NAME: Glendo LLC
ADDRESS: 900 Overlander Road, Emporia, KS 66801
PHONE: (620) 343-1084

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS #</u>	<u>AMOUNT</u>
4,4' DIPHENYLMETHANE DIISOCYANATE MDI	PROPRIETARY	< 85%
PETROLEUM HYDROCARBON	PROPRIETARY	< 11%
AROMATIC HYDROCARBON	108-88-3	< 8%

ALL PRODUCTS ARE NOT LISTED AS CARCINOGEN IN NTP, IARC, OR OSHA 1910(Z)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause skin, eye, and respiratory tract irritation. Harmful if inhaled; May cause allergic respiratory reaction; May cause lung damage; toxic gases/fumes are given off during burning or thermal decomposition.

EYE CONTACT: May cause irritation.

SKIN CONTACT: Frequent or prolonged contact may irritate and cause dermatitis. Occasional brief contact with the liquid will not result in significant irritation. Skin contact may aggravate an existing dermatitis condition.

ACUTE INHALATION: MDI vapors or mist at concentrations above the TLV can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing running nose, sore throat, coughing, chest discomfort, shortness of breath, and reduced lung function.

CHRONIC INHALATION: As a result of previous repeated overexposures or a single large dose, certain individuals develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath, or asthma attack, could be immediate or delayed (up to several hours after exposure). Similar to many non-specific asthmatic responses, there are reports that once sensitized and individual can experience these symptoms upon exposure to dust, cold air, or other irritants. Sensitization can be temporary or permanent.

INGESTION: Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Neither MDI nor polymeric MDI are listed by the NTP, IARC or regulated by OSHA as carcinogens.

4. FIRST AID MEASURES

EYE CONTACT: Holding eyelids open, flush with large amounts of clean water for 15 minutes. If irritation persists, get medical attention.

SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists. Wash clothing before reuse.

INHALATION CONTACT: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

INGESTION CONTACT: Do not induce vomiting. Do not give liquids. Get medical attention immediately.

NOTES TO PHYSICIAN:

Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic steroid preparation frequently. Workplace vapors have produced reversible cornea epithelial edema impairing vision.

Skin: This compound is a known skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burns. If burned, treat as thermal burn.

Ingestion: Treat symptomatically. MDI has a very low oral toxicity. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of this compound.

Respiratory: This compound is a known pulmonary sensitizer. Treatment is essentially symptomatic. An individual having a skin or pulmonary sensitization reaction to this material should be removed from exposure to any isocyanate.

5. FIRE, EXPLOSION DATA AND MEASURES

EXTINGUISHING MEDIA: Water spray, foam, carbon dioxide, or dry chemical

FIRE FIGHTING INSTRUCTIONS: Firefighters should be equipped with self-contained breathing apparatus and turn out gear. Use water spray to cool fire exposed surfaces and to protect personnel. Wear structural fire fighting gear. During a fire, MDI vapors and other irritating, highly toxic gases may be generated by thermal decomposition or combustion. At temperatures greater than 400°F polymeric MDI can polymerize and decompose which can cause pressure build-up in closed containers.

FLASH POINT: 390°F

AUTOIGNITION TEMP: <1000°F

6. ACCIDENTAL RELEASE MEASURES

GENERAL: Spills should be contained, ventilated, solidified, and placed in suitable containers for disposal at a licensed facility.

WASTE DISPOSAL: Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

7. HANDLING AND STORAGE

HANDLING: Avoid breathing mist or vapors and repeated or prolonged exposure with skin. Avoid eye contact. Do not drink.

STORAGE: Store and use in well ventilated area between 70-80°F. Avoid excessive temperatures, low or high. Avoid moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

CLOTHING: Gloves, coveralls, apron, boots as necessary to prevent skin contact.

EYES: Chemical goggles; also wear face shield if splashing hazard exists.

RESPIRATION: Approved organic vapor mist respirator as necessary.

VENTILATION: Use local exhaust to control vapors/mists.

9. PHYSICAL AND CHEMICAL PROPERTIES

COLOR: translucent brown

FORM: liquid

ODOR: aromatic slightly musty odor

ODOR INTENSITY: mild

SPECIFIC GRAVITY: 1.05

BOILING PT: not available

FREEZING PT: not available

SOLUBILITY: partial

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Exposure to temperatures above 400°F

INCOMPATIBILITY: moisture, amines, strong bases, alcohols

HAZARDOUS POLYMERIZATION: Temperatures above 400°F and fire.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

ORAL: Greater than 10,000 mg/kg (rat)

DERMAL: Greater than 6,200 mg/kg (rabbit)

INHALATION: 4 hour LC50 for polymeric MDI in rats ranges from 370 to 190 mg/m³. The 4 hour LC50 for monomeric MDI in rats was estimated to be between 172 and 187 mg/m³.

EYE: Slight to moderate irritation (rabbit)

SKIN: Slight to moderate irritation (rabbit)

SENSITIZATION: MDI has been shown to produce dermal sensitization in laboratory animals. Evidence of respiratory sensitization has also been observed in guinea pigs. In addition, there is some evidence suggestive of cross-sensitization between different types of diisocyanates.

CHRONIC TOXICITY: In a combined chronic inhalation toxicity/oncogenicity study, rats were exposed to an aerosol of polymeric MDI for 6 hours per day, 5 days per week for one or two years. The exposure concentrations were 0, .2, 1, and 6 mg/m³. Microscopic examination of tissues revealed the effects of irritation to the nasal cavity and lungs in animals exposed to 1 and 6 mg/m³. The No Observable Effect Level (NOEL) was .2 mg/m³.

12. ECOLOGICAL INFORMATION

AQUATIC TOXICITY: Greater than 500 mg/liter for Daphnia magna, Limnea Stagnalis, and Zebra fish for both polymeric and monomeric MDI.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

CONTAINER DISPOSAL: Steel drums must be emptied (as defined by RCRA, Section 261.7 or state regulations that may be more stringent) and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer, or an approved landfill. Drums destined for a scrap dealer or landfill must be punctured or crushed to prevent reuse. Do not heat or cut empty containers with electric or gas torch. Gases may be highly toxic.

14. TRANSPORT INFORMATION

TECHNICAL SHIPPING NAME: Methylene diphenyl diisocyanate solution

FREIGHT CLASS BULK: Methylene diphenyl diisocyanate solution

FREIGHT CLASS PACKAGE: Chemicals, NOI (Isocyanate), NMFC 60000

PRODUCT LABEL: Product Label Establishment

HAZARDOUS CLASS OR DIVISION: 9

UN/NA NUMBER: NA 3080

PACKING GROUP: III

HAZARDOUS SUBSTANCE: MDI (Methylene diphenyl diisocyanate)

DOT PRODUCT RQ LBS: 11,111 lbs

HAZARD LABEL: Class 9

HAZARD PLACARD: Class 9

****When in individual containers of less than the product RQ, this material ships as NON-REGULATED****

IMO / IMDG CODE (OCEAN): Hazardous Class Division Number: Non Regulated

ICAO / IATA (AIR): Hazardous Class Division Number: Non Regulated

15. REGULATORY INFORMATION

This product is hazardous under the criteria of the Federal OSHA Hazardous Communication Standard 29 CFR 1910.1200

CERCLA: Reportable Quantity: Over 5,000 lbs

SARA TITLE III, SECTION 302: Not Listed

SECTION 311/312: Immediate Health Hazard, Delayed Health Hazard

SECTION 313: Polymeric MDI

HAZARDOUS RATING:

HEALTH HAZARD: 2

FIRE HAZARD: 1

REACTIVITY: 1

16. OTHER INFORMATION

The information contained herein is based on data considered to be accurate; however, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

Vendor assumes no responsibility for injury to vendee or third party persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the material safety data sheet.

Additionally, vendor assumes no responsibility for injury to vendee or third party persons proximately caused by abnormal use of this material even if reasonable safety procedures are followed.

Vendee assumes the risk in use of this material.

CREATION DATE	CREATED BY	
03/11/2013	R. Fessler	
REVISION DATE	REVISED BY	REASON FOR REVISION
08/13/2014	R. Fessler	Content Review