



**MATERIAL SAFETY DATA SHEET**

GENERAL PLASTICS MANUFACTURING COMPANY  
 4910 BURLINGTON WAY  
 TACOMA, WA 98409

Phone (253) 473-5000  
 Revised 03/18/08  
 Prepared by EH&S

1. PRODUCT IDENTIFICATION      **LAST-A-FOAM® BONDER and LAST-A-FOAM® QUICK-SET BONDER**  
 A moisture-cured, single component, polyurethane adhesive

2. HAZARDOUS INGREDIENTS      4,4'-diphenylmethane-diisocyanate (MDI), (CAS 101-68-8) 15-20%  
 OSHA limits airborne exposure using limits of 0.005 ppm TWA,  
 0.020 ppm STEL.

Similar structure oligomers (CAS 9016-87-9)      10-15%  
 Not listed by ACGIH or OSHA. Many states regulate airborne  
 isocyanates at the above levels for MDI, without regard to the  
 specific structure of origin.

All materials used to prepare these parts are listed on the TSCA inventory.

3. HEALTH HAZARDS

INGESTION      Irritation of the mouth, pharynx, esophagus and stomach can  
 develop following ingestion.

EYE CONTACT      This material can cause moderate to severe eye irritation.

SKIN CONTACT      Dermatitis and skin sensitization can develop after repeated or  
 prolonged contact.

INHALATION      Evidence suggests that MDI can induce asthma-like respiratory  
 sensitization, which is similar to TDI sensitization. Vapors and  
 aerosols can irritate eyes, nose and respiratory passages and  
 can result in permanent decreases in lung function.

Medical conditions that may be aggravated by exposure include asthma, bronchitis, emphysema, skin allergies, and eczema.

4. FIRST AID PROCEDURES

SKIN      Remove with soap and water. Seek medical attention if redness  
 persists.

EYES      Immediately flush with water for 15 minutes and seek medical  
 attention.

INGESTION      Do not induce vomiting and seek immediate medical attention.  
 If possible, rinse mouth with water.



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4. FIRST AID PROCEDURES (con't.)

INHALATION	Remove victim to fresh air. If cough or other respiratory symptoms develop, seek medical attention.
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5. FIRE AND EXPLOSION DATA

FLASH POINT	Not determined
EXTINGUISHING MEDIA	Dry chemical, carbon dioxide, foam, or extensive water spray.
SPECIAL PROCEDURES	During a fire, MDI and other irritating or highly toxic vapors may be present. Self-contained breathing apparatus and full protective gear must be used.  At temperatures greater than 400°F this material can react and/or decompose which can cause pressure build-up in closed containers. Explosive rupture is possible.

6. ACCIDENTAL RELEASE PROCEDURES

Wear skin, eye and if necessary, respiratory protection during cleanup. Mix with absorbent and treat with a decontamination solution. Prepare such a solution by dissolving a small amount of a basic material such as 3-8% concentrated ammonia in water. A 5-10% sodium carbonate solution may also be used. Mix the absorbed spill with the treating solution to obtain a wet to damp slurry, and allow it to react for about an hour. Then shovel the mix to an open container. Do not seal the container; allow the reaction to go to completion over 48 hrs or more. Carbon dioxide will be evolved, leaving insoluble polyureas.

7. HANDLING AND STORAGE

HANDLING	Prevent skin and eye contact. Avoid breathing vapors or aerosols. Only qualified personnel should handle containers.
STORAGE	Store in tightly sealed containers to protect from atmospheric moisture. Never return unused material to container.



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8. PERSONAL PROTECTION

RESPIRATORY	Because of the low vapor pressure, normal ventilation is usually sufficient to keep vapors below the TLV at room temperature. Exceptions are when the material is sprayed or heated. If necessary, use NIOSH approved respirators. For fires, use a self-contained breathing apparatus.
SKIN	Impervious gloves and protective aprons should be used.
EYE PROTECTION	Safety glasses, goggles or a full face shield should be worn. An eye wash station should be available in the work area.

9. PHYSICAL PROPERTIES

FORM	Viscous, dark brown liquid
BOILING POINT	406°F at 5 mm Hg for MDI-This product is less volatile.
WATER SOLUBILITY	Not soluble, reacts slowly with water to liberate CO <sub>2</sub> gas
SPECIFIC GRAVITY	1.09
VAPOR PRESSURE	Less than .00001 at 77 °F for MDI
VAPOR DENSITY.	Estimated at 8.5 (MDI) assuming air = 1

10. REACTIVITY DATA

STABILITY	Product is stable at room temperature.
INCOMPATIBLE MATERIALS	This product will react with materials such as water, alcohol, ammonia, bases and acids. The reaction with water is slow below 122°F, but is accelerated at higher temperatures and in the presence of alkaline materials and some metal compounds. Reactions can be violent. Contaminated containers may become pressurized when closed.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon dioxide, carbon monoxide, hydrogen cyanide and nitrous oxide
HAZARDOUS POLYMERIZATION	Highly exothermic polymerization may occur at elevated temperatures in the presence of alkalis, metal compounds and tertiary amines.



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11. TOXICOLOGICAL INFORMATION

ACUTE HAZARDS                      No data available

12. ECOLOGICAL INFORMATION

TOXICITY                                      No data available

13. DISPOSAL

Disposal should be in accordance with your local, state and federal regulations. **LAST-A-FOAM® BONDER** is not a hazardous waste under RCRA 40 CFR 261.

14. DOT INFORMATION

**LAST-A-FOAM® BONDER** is not regulated or classified in a manner that requires special handling or precautions for a shipment of 55 gallons or less.

15. REGULATORY INFORMATION

CERCLA                                      RQ (MDI): 5000 lbs

SARA, § 311/312                          *Acute and Chronic*

SARA, § 313                                  Polymeric diphenylmethane diisocyanate (pMDI)  
 4,4'-diphenylmethane diisocyanate (MDI)