Foam Sealant

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION
Product Name:
Foam Sealant
Manufactured for: Diversitech
6650 Sugarloaf Parkway, Duluth, GA 30097
Phone: 800-995-2222 (Product Information)
Phone: 800-255-3924 (CHEM-TEL, Chemical Emergencies Only)
Revised: 05/31/2012
Prepared By: A. Jernigan

2. HAZARDS IDENTIFICATION
PRIMARY ROUTES OF EXPOSURE:
WARNING!
Emergency Overview
Contents under pressure. Avoid temperatures above (120°F)
May be harmful if swallowed or inhaled.
May cause allergic skin reaction.
May cause allergic respiratory reaction.
Vapors may be irritating to eyes, nose, throat, and lungs.
May cause drowsiness and dizziness.
Keep upwind of spill. Stay out of low areas
Appearance Pale Amber
Physical State Liquid Aerosol
Odor Faint hydrocarbon
Potential Health Effects
Principle Routes of Exposure Inhalation, Skin contact, Eye contact.
Acute Toxicity
Eyes Irritating to eyes. May cause slight temporary corneal injury due to adhesive character.
Skin Prolonged or repeated exposure may cause slight skin irritation. Material will stick to skin
causing irritation upon removal. Animal studies have shown that skin contact with isocyanates
may play a role in causing respiratory sensitization. Repeated or prolonged skin contact may
cause allergic reactions with susceptible persons.
Skin Absorption A single prolonged exposure is unlikely to result in the material being absorbed in harmful
amounts.
Inhalation Maintain local exhaust ventilation system during use. If large concentrations of vapors build up
they could cause upper respiratory tract and lung irritation. May cause allergic respiratory reaction. Inhalation of vapors in high
concentration may cause shortness of breath (lungedema).
Ingestion May be harmful if swallowed. May cause additional affects as listed under "Inhalation". Ingestion may cause
gastrointestinal irritation, nausea, vomiting and diarrhea. Product may cure in the gastrointestinal tract and form an obstruction.
May cause adverse cardiac effects, blood disturbances, and metabolic acidosis.
Chronic Effects Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals
after repeated excessive exposures to MDI / Polymeric MDI aerosols. Intentional misuse by deliberately
concentrating and inhaling contents may be harmful or fatal. Repeated or prolonged contact causes sensitization,
asthma and eczemas.
Foam Sealant

Birth / Developmental Effects: In laboratory animals, MDI/Polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses that were toxic to the mother.


Interactions with Other Chemicals: Irritants. Sensitizers. Epoxies. Use of alcoholic beverages may enhance toxic effects.

3. COMPOSITION / INFORMATION INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1,1,2 – Tetrafluoroethane (HFC-134a, Fluorocarbon)</td>
<td>811-97-2</td>
<td>10-30</td>
</tr>
<tr>
<td>Flame Retardant</td>
<td>Proprietary</td>
<td>5-20</td>
</tr>
<tr>
<td>Flame Retardant</td>
<td>Proprietary</td>
<td>5-20</td>
</tr>
<tr>
<td>Polymethylene polyphenylene isocyanate</td>
<td>9016-87-9</td>
<td>10-30</td>
</tr>
<tr>
<td>Methylene bisphenyl isocyanate (MDI)</td>
<td>101-68-8</td>
<td>10-30</td>
</tr>
<tr>
<td>Polyol blend</td>
<td>Proprietary</td>
<td>10-30</td>
</tr>
<tr>
<td>Methylene diphenyl disocyanate</td>
<td>26447-40-5</td>
<td>1-5</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

General Advice: If emergency warrants call 911 or emergency medical service. Show this safety data sheet to the doctor in attendance. Remove and wash soiled clothing before reuse.

Eye Contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Obtain medical attention, preferably from an ophthalmologist.

Skin Contact: Remove contaminated clothing; wash before reuse. Foam will stick to skin; studies demonstrate that cleaning very soon after exposure with corn oil or nail polish remover is most effective. If foam dries on skin, apply generous amounts of petroleum jelly or lanolin, put on plastic gloves and wait 1 hour. With a clean cloth, firmly wipe off petroleum jelly and repeat process if necessary. Do not attempt to remove dried foam with solvents.

Inhalation: Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Ingestion: Call a physician or Poison Control Center immediately. May produce an allergic reaction. Do not induce vomiting unless directed to do so by medical personnel. Drink plenty of water. Never give anything by mouth to an unconscious person.

Notes to Physician: Maintain adequate ventilation and oxygenation of the patient. May cause asthma-like (reactive airways) symptoms. May cause respiratory sensitization or asthma-like symptoms. Respiratory symptoms, including pulmonary edema, may be delayed. Exposure may increase “myocardial irritability”. If you are sensitized to disocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Protection of First-aiders: Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. FIREFIGHTING MEASURES

Flammable Properties: Aerosol cans exposed to fire can rupture.

Flash Point: None

Suitable Extinguishing Media: Isolate fire and deny unnecessary entry. Use an extinguishing agent suitable for type of surrounding fire. Dry chemical, CO2, water spray, fog or regular foam. Stay upwind. Keep out of low areas where gases fumes can accumulate. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

Explosion Data: None

Sensitivity to mechanical impact: None
Foam Sealant

Sensitivity to static discharge None
Specific Hazards Arising from the Chemical Ruptured cylinders may rocket.
Protective Equipment and Precautions for Firefighters Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES
Personal Precautions Do not touch or walk through spilled material. Use appropriate safety equipment. Evacuate area. Keep personnel out of low areas, confined or poorly ventilated areas. Keep upwind of spill. Ensure adequate ventilation. No smoking in area. Only trained and properly protected personnel must be involved in clean-up operations.
Methods for Containment If possible, turn leaking containers so that gas escapes rather than liquid. Allow substance to evaporate. Contain spilled materials if possible without risk. Absorb with materials such as Sawdust. Dirt Vermiculite. Collect in suitable and properly labeled open containers. Do not place in sealed containers. Wash what is left of the spill site with large quantities water.
Methods for Cleaning Up Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Do not direct water at spill or source of leak.
Other Information Ventilate the area. Curing foam gives off HFC-134a. Do not put curing foam in a sealed drum.

7. HANDLING AND STORAGE
Handling Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product. Use only in area provided with appropriate exhaust ventilation. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Container, even those that have been emptied, can contain vapors. Do not stick pin or any other sharp object into opening on top of can.
Storage Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. Keep in an area equipped with sprinklers. Keep out of the reach of children. Ideal storage temperature is 16-32 °C / 60 – 90 °F. Storage above 32 °C / 90 °F will reduce its shelf-life. Never keep at temperatures above 48.8 °C / 120 °F

8. EXPOSURE CONTROLS /PERSONAL PROTECTION
Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene bisphenyl isocyanate (MDI)</td>
<td>TWA: 0.005 ppm</td>
<td>Ceiling: 0.2 mg/m3</td>
<td>75 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling: 0.02 ppm</td>
<td></td>
</tr>
</tbody>
</table>

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures Showers, Eyewash stations, Ventilation systems
Personal Protective Equipment
Eye/Face Protection Tightly fitting safety glasses with side-shields.
Skin and Body protection Lightweight protective clothing. Impervious gloves.
Respiratory Protection Atmospheric levels of PMDI should be maintained below the exposure guidelines. If exposure limits are exceeded or irritation is experienced, use a NIOSH/MSHA approved air-purifying respirator equipped with an organic vapor absorbent and a particle filter. For situations where the atmospheric levels exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplied respirator. Respiratory protection must be provided in accordance with current local regulations.
Hygiene Measures When using, do not eat, drink or smoke. Maintain regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS
Appearance Pale Amber
Odor Faint hydrocarbon
Odor Threshold No information available
Physical State Liquid Aerosol
pH No information available
Foam Sealant

Flash Point None
Autoignition Temperature Not applicable
Decomposition temperature No data available
Boiling Point/Range -41°C / -42°F
Melting Point/Range No data available
Flammability Limits in Air No data available
Explosion Limits No data available
Specific Gravity 1.2
Water Solubility Not Compatible
Solubility Compatible
Evaporation Rate No data available
Vapor Pressure No data available
Vapor Density No data available
VOC Content Not applicable
EPA VOC (g/l) 0
Partition Coefficient (octanol/ water) No data available

10. STABILITY AND REACTIVITY
Stability Stable under recommended storage conditions
Conditions to Avoid Keep away from open flames, hot surfaces and sources of ignition. Temperatures above 48.8 °C / 120 °F.
Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO2), Nitrogen oxides (NOx), Hydrogen cyanide.
Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION
Sensitization - Skin Skin contact may cause an allergic skin reaction. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.
Sensitization – Respiratory May cause allergic respiratory response. MDI concentrations below the exposure guidelines may cause allergic respiratory reactions in individuals already sensitized. Asthma-like symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Occasionally, breathing difficulties may be life threatening.

Product Information .

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral (Rat)</th>
<th>LD50 Dermal (Rabbit)</th>
<th>LC50 Inhalation (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame Retardant</td>
<td>1,250 mg/kg</td>
<td>&gt;5,000 mg/kg</td>
<td>&gt;4.6 mg/l/4 hr</td>
</tr>
<tr>
<td>Flame Retardant</td>
<td>&gt;2,000 mg/kg</td>
<td>&gt;23,700 mg/kg</td>
<td>&gt;5.22 mg/l/4-4 h</td>
</tr>
<tr>
<td>Polymethylene polyphenylene isocyanate</td>
<td>49 gr/kg</td>
<td>9400 mg/kg</td>
<td>490 mg/m3/4 h</td>
</tr>
<tr>
<td>Methylene bisphenyl isocyanate (MDI)</td>
<td>9200 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyl blend</td>
<td>64 mL/kg</td>
<td>20 mL/kg</td>
<td></td>
</tr>
<tr>
<td>Methylene diphenyl diisocyanate</td>
<td>6200 mg/kg</td>
<td>0.369 mg/L</td>
<td>&gt;2000 mg/kg/4h</td>
</tr>
</tbody>
</table>

Chronic Toxicity
Chronic Toxicity Repeated or prolonged exposure may cause central nervous system damage. Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols. Repeated or prolonged contact causes sensitization, asthma and eczemas. Repeated or prolonged contact may causes sensitization, asthma and eczemas.
Carcinogenicity There are no known carcinogenic chemicals in this product.
Mutagenicity Contains no known mutagenetic chemicals
Reproductive Toxicity This product does not contain any known or suspected reproductive hazards
Target Organ Effects Contains component(s) that have been reported to cause effects on the following organs in
Foam Sealant

animals: Kidney, Liver, Bone marrow.

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**12. ECOLOGICAL INFORMATION**

Ecotoxicity
Ecotoxicity effects.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Microtox</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame Retardant</td>
<td>EC50 &gt; 10 mg/L 72 h</td>
<td></td>
<td></td>
<td>EC50 3.9 - 5.5 mg/L 48 h</td>
</tr>
<tr>
<td>Methylene diphenyl diisocyanate</td>
<td>EC50 = 3230 mg/L 96 h</td>
<td></td>
<td></td>
<td>EC50 &gt; 1000 mg/L 24 h</td>
</tr>
</tbody>
</table>

**13. DISPOSAL CONSIDERATIONS**

Waste Disposal Method This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). Should not be released into the environment. Dispose of in accordance with local regulations. Allow foam to cure before disposal.

Contaminated Packaging Dispose of in accordance with local regulations.

**14. TRANSPORT INFORMATION**

DOT
Proper Shipping Name Consumer commodity
Hazard Class ORM-D
Description Consumer commodity, ORM-D
TDG
UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2.2
Description UN1950, Aerosols, 2.2
MEX
UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2.2
Description UN1950, Aerosols, 2.2
ICAO
UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2.2
Description UN1950, Aerosols
IATA
UN-No UN1950
Proper Shipping Name Aerosols, non-flammable
Hazard Class 2.2
ERG Code 2L
Description UN1950, Aerosols, non-flammable, 2.2
IMDG/IMO
UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2.2
Description UN1950, Aerosols, 2.2
RID
Foam Sealant

UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2
Classification Code 5A
Description UN1950, Aerosols, 2, RID
ADR/RID-Labels 2
ADR
UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2
Classification Code 5A
ADR/RID-Labels 2
ADN
UN-No UN1950
Proper Shipping Name Aerosols
Hazard Class 2
Classification Code 5A
Special Provisions 63, 190, 191, 277, 913
Description UN1950, Aerosols, 2
Hazard Labels 2
  Limited Quantity See SP277

15. REGULATORY INFORMATION
International Inventories
TSCA Complies
DSL Complies
EINECS/ELINCS Complies
ENCS Complies
CHINA Complies
KECL Complies
PICCS Complies
AICS Complies
U.S. Federal Regulations
SARA 313 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>SARA 313 – Threshold Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymethylene polyphenylene isocyanate</td>
<td>9016-87-9</td>
<td>10-30</td>
<td>1.0</td>
</tr>
<tr>
<td>Methylene bisphenyl isocyanate (MDI)</td>
<td>101-68-8</td>
<td>10-30</td>
<td>1.0</td>
</tr>
<tr>
<td>Methylenediphenyl disiocyanate</td>
<td>26447-40-5</td>
<td>1-5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories
Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard Yes
Reactive Hazard No
Clean Water Act This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).
Foam Sealant

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

**Chemical Name** Hazardous Substances RQs Extremely Hazardous Substances RQs
Methylene bisphenyl isocyanate (MDI) 5000 lb

**U.S. State Regulations**

**California Proposition 65**
Warning! This product contains chemical known to the State of California to cause cancer. (concentration <0.1%)

**U.S. State Right-to-Know Regulations**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts</th>
<th>New Jersey</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene bisphenyl isocyanate (MDI)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1,1,1,2 – Tetrafluoroethane (HFC- 134a, Fluorocarbon)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**International Regulations**

Mexico - Grade The exposure limits values for 101-68-8 are listed under two synonyms:
Diphenylmethane diisocyanate - 0.02 ppm TWA; 0.2 mg/m3 TWA
Methylene bisphenyl isocyanate - 0.005 ppm TWA; 0.051 mg/m3 TWA

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Carcinogen Status</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene bisphenyl isocyanate (MDI)</td>
<td></td>
<td>Mexico: TWA= 0.2 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: TWA= 0.02 ppm</td>
</tr>
<tr>
<td>Diphenylmethane diisocyanate</td>
<td></td>
<td>Mexico: TWA= 0.005 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mexico: TWA= 0.051 mg/m3</td>
</tr>
</tbody>
</table>

Canada
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**
A
D2B

Compressed gases Toxic materials

**Chemical Name** NPRI
Methylene bisphenyl isocyanate (MDI) X

**Legend**
NPRI - National Pollutant Release Inventory
WHMIS – Workplace Hazardous Materials Information System
TSCA – Toxic Substance Control Act
DSL – Domestic Substance List
EINECS – European Inventory of Existing Commercial Chemical Substances
ENCS – Japan, Existing and New Chemical Substances
KECL- Korean Existing Chemical List
PICS – Philippine Inventory of Chemicals and Chemical Substances
AICS – Australian Inventory of Chemical Substances
TDG – Transportation of Dangerous Goods Act
ICAO – International Civil Aviation Organization
Foam Sealant

IATA – International Maritime Dangerous Goods Code
IMDG – International Maritime Dangerous Goods Code

16. OTHER INFORMATION

NFPA RATING:          HMIS® RATING:
Health – 2            Health – 2*
Flammability – 1      Flammability – 3
Reactivity – 1        Reactivity – 0

HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint and Coatings Association (NPCA).

This information is, to the best of our knowledge and belief, accurate and reliable as of the date completed. However no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the completeness and suitability of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information, nor do we offer any warranty against patent infringement.