

Foam Sealant

MSDS# 01714**Date May 2012****8 Total Pages****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.

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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.

Aggravated Medical Conditions Allergies. Skin disorders. Respiratory disorders. Central nervous system. Preexisting eye disorders. Kidney disorders. Liver disorders.

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

3. COMPOSITION / INFORMATION INGREDIENTS

Chemical Name	CAS-No	Weight %
1,1,1,2 – Tetrafluoroethane (HFC-134a, Fluorocarbon)	811-97-2	10-30
Flame Retardant	Proprietary	5-20
Flame Retardant	Proprietary	5-20
Polymethylene polyphenylene isocyanate	9016-87-9	10-30
Methylene bisphenyl isocyanate (MDI)	101-68-8	10-30
Polyol blend	Proprietary	10-30
Methylenediphenyl diisocyanate	26447-40-5	1-5

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 diisocyanates, 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 fume s can accumulate. Move containers from fire area if you can do it without risk. Damaged cylinders should be handled only by specialists.

Explosion Data

Sensitivity to mechanical impact None

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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

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Methylene bisphenyl isocyanate (MDI)	TWA: 0.005 ppm	Ceiling: 0.2 mg/m ³ Ceiling: 0.02 ppm	75 mg/m ³

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

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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 (noctanol/ 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.
Incompatible Products Water. Alcohols. Strong bases. Strong oxidizing agents. Finely powdered metals.
Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), 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 .

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Flame Retardant	1,250 mg/kg (Rat)	>5,000 mg/kg (Rabbit)*	>4.6 mg/l (Rat) 4-hr
Flame Retardant	>2,000 mg/kg (Rat)	>23,700 mg/kg (Rabbit)	>5.22 mg/l (Rat) 4-h
Polymethylene polyphenylene isocyanate	49 g/kg (Rat)	9400 mg/kg (Rabbit)	490 mg/m3 (Rat) 4 h
Methylene bisphenyl isocyanate (MDI)	9200 mg/kg (Rat)		
Polyol blend	64 mL/kg (Rat)	20 mL/kg (Rabbit)	
Methylenediphenyl diisocyanate	6200 mg/kg (Rabbit)	0.369 mg/L (Rat) 4 h	>2000 mg/kg (Rat) 4h

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

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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.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Flame Retardant	EC50 > 10 mg/L 72 h			EC50 3.9 - 5.5 mg/L 48 h
Methylenediphenyl diisocyanate	EC50 = 3230 mg/L 96 h			EC50 > 1000 mg/L 24 h

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

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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.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Polymethylene polyphenylene isocyanate	9016-87-9	10-30	1.0
Methylene bisphenyl isocyanate (MDI)	101-68-8	10-30	1.0
Methylenediphenyl diisocyanate	26447-40-5	1-5	1.0

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).

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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

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methylene bisphenyl isocyanate (MDI)	X	X	X	X	X
1,1,1,2 – Tetrafluoroethane (HFC- 134a, Fluorocarbon)			X		X

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

Chemical Name	Carcinogen Status	Exposure Limits
Methylene bisphenyl isocyanate (MDI)		Mexico: TWA= 0.2 mg/m3 Mexico: TWA= 0.02 ppm
Diphenylmethane diisocyanate		Mexico: TWA= 0.005 ppm Mexico: TWA= 0.051 mg/m3

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

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

16. OTHER INFORMATION

NFPA RATING:

Health – 2

Flammability – 1

Reactivity – 1

HMIS® RATING:

Health – 2*

Flammability – 3

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).

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