MATERIAL SAFETY DATA SHEET

Quick Foam Fine Urethane (Side A)

1. Product And Company Identification

Supplier
Mar-flex Waterproofing Products
6866 Chrisman Lane
Middletown, OH 45042 USA

Telephone Number: 513-422-7285
FAX Number: 513-422-7282
E-Mail: info@mar-flex.com
Web Site: www.mar-flex.com

Manufacturer
Mar-flex Waterproofing Products
6866 Chrisman Lane
Middletown, OH 45042 USA

Telephone Number: 513-422-7285
FAX Number: 513-422-7282
E-Mail: info@mar-flex.com
Web Site: www.mar-flex.com

Supplier Emergency Contacts & Phone Number
Chem-Trec: 1-800-424-9300

Manufacturer Emergency Contacts & Phone Number
Chem-Trec: 1-800-424-9300

Issue Date: 09/24/2009

Product Name: Quick Foam Fine Urethane (Side A)
Chemical Name: Polyurethane Foam
CAS Number: Not Established
Chemical Family: Polymeric Diphenylmethane Diisocyanate
MSDS Number: 0
Product Code: IA-68100

Synonyms
Aromatic Isocyanate

Product/Material Uses - Used in conjuction with "Side B" to seal cracks that are hairline to 1/8" wide.
Product Identification Text - Side "A" of a 2 Part Cartridge

2. Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
4.4 Diphenylmethane Diisocyanate	101-68-8		

Percent of Total Weight is a Trade Secret

EMERGENCY OVERVIEW

This material is designed and intended to be pumped, not sprayed. MDI becomes more hazardous when atomized (sprayed). The following data is derived from tests performed when the material is sprayed and should be considered but may not apply to pumping operations as recommended by the manufacturer.

Potential Health Effects: At room temperature, MDI vapors are minimal due to low vapor pressure. However, heating, foaming, or otherwise dispersing (drumming, venting or pumping) operations may generate more vapor or aerosol concentrations of isocyanate.

KEEP AWAY FROM CHILDREN AND ANIMALS.

3. Hazards Identification

Primary Routes(s) Of Entry - Eye, Skin, Ingestion & Inhalation.
Eye Hazards - As a liquid or dust, may cause irritation, inflammation and/or damage to sensitive eye tissue. Symptoms include watering or discomfort of eyes. Corneal injury is unlikely.
Skin Hazards - No irritation is likely to develop following short contact periods with skin. Prolonged or repeated

3. Hazards Identification - Continued

exposure can cause skin irritation, reddening, dermatitis and in some individuals, sensitization. Skin contact may result in allergic skin reactions or respiratory sensitization but is not expected to result in absorption or amounts sufficient to cause other adverse effects. May stain skin.

Ingestion Hazards - Single dose oral toxicity is considered to be extremely low. Can result in irritation and corrosive action in mouth, stomach tissue and digestive tract.

Inhalation Hazards - Persons with known respiratory and allergy problems must not be exposed to this product.

Chronic/Carcinogenicity Effects - **Chronic:** As a result of previous repeated overexposure or a single large dose, certain individuals develop isocyanate sensitization (chemical asthma) or tissue injury in the upper respiratory tract. Animal test indicate skin contact alone may also lead to allergic respiratory reaction. These effects may be permanent. Any person developing asthmatic reaction or other sensitization should be removed from further exposure.

Carcinogenicity: MDI and Polymeric MDI are not listed by the NTP, IARC or regulated by OSHA as carcinogens. Lung tumors have been observed in laboratory animals exposed to aerosol droplets of MDI/Polymeric MDI (6mg/m3) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effect.

Signs And Symptoms - Symptons may include coughing, dryness of throat, headache, nausea, difficulty breathing and a feeling of tightness in the chest. Effects may be delayed.

Conditions Aggravated By Exposure - Respiratory sensitization with asthma-like symptoms may occur in a susceptible individual. MDI concentration below the exposure guideline may cause irritation of the eyes, upper respiratory tract and lungs.

Conditions Aggravated By Overexposure - Excessive exposure may cause irritation of the eyes, upper respiratory tract and lungs. Impaired lung function (decreased ventilators capacity) has been associated with over exposure to isocyanate.

First Aid (Pictograms)

4. First Aid Measures

Eye - Flush eyes with plenty of water for at least 15 minutes. Materials containing MDI may react with the moisture of the eye forming a thick material that may be difficult to wash from the eyes. Seek medical attention.

Skin - Wash off in flowing water or shower. Remove and wash contaminated clothing and discard contaminated shoes. Seek medical attention if redness, itching or a burning sensation develops or persists after the area is washed.

Ingestion - If swallowed, drink 1 or 2 glasses of water or milk. Do not induce vomiting unless directed to do so by medical personnel. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person).

Inhalation - Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

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

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

Ingestion: Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated of the irritating nature of this product.

4. First Aid Measures - Continued

Fire Fighting (Pictograms)

5. Fire Fighting Measures

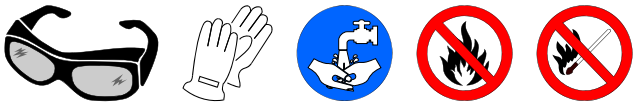
Flash Point: 398 °F
Flash Point Method: PMCC
Lower Explosive Limit: N.D.
Upper Explosive Limit: N.D.

Fire And Explosion Hazards - Toxic Fumes are released in fire situtations. Harmful if inhaled.
Extinguishing Media - Dry chemical, carbon dioxide foam, water spray for large fires.

6. Accidental Release Measures

Spill: Evacuate spill area. Use adequate ventilation and appropriate personal protect equipment, cover the area with an inert absorbent such as clay or vermiculite and transfer to metal waste containers. Saturate with water or decontamination solution below, but do not seal the container with the isocyanate mixture. Larger quantities of liquid may be transferred directly to drums for disposal.
Note: Isocyanate will react with water and generate carbon dioxide. This could result in the rupture of any closed container.
Clean Up: The area should then be flushed with a decontamination solution. The decontamination solution is a 5-10% mixture of sodium carbonate and .5% liquid detergent in water solution or a 3% concentrated ammonium hydroxide and .5% liquid detergent in water. Use 10 parts decontamination solution to 1 part spilled material. If the ammonium hydroxide solution is used, ammonia will be evolved as a vapor. Use caution to avoid exposure to high concentrations of ammonia. Allow to stand for 48 hours letting evolved carbon dioxide to escape.

Handling & Storage (Pictograms)



7. Handling And Storage

Handling And Storage Precautions - **Storage**: When stored between 60 degrees F and 85 degrees F (15 and 30 degree C) in sealed containers, typical shelf life is six months or more from the date of manufacture. Consult technical data sheet for shelf life requirements affecting performance quality. Should freezing occur, the material must be thawed thoroughly and mixed until uniform. Open containers must be handled properly to prevent moisture contamination.
Heating: Use personal protective equipment when transferring material to or from drums, totes or other containers. Safety glasses and gloves are the minimum protection. Additional precautions must be used when splash hazards are present. The reaction of polyols and isocyanates generate heat. Contact of the reacting materials with skin or eyes can cause sever burns and may be difficult to remove from the affected areas. Immediately wash affected areas with plenty of water and seek medical attention. In addition, such contact increases the risk of exposure to isocyanate vapors. Do not smoke or use naked lights, open flames, space heaters or other ignition source near pouring or frothing operations.
Storage Precautions - **DO NOT ALLOW TO FREEZE.**

Protective Clothing (Pictograms)

8. Exposure Controls/Personal Protection

Engineering Controls - **Exposure:** MDI contains reactive isocyanate groups. Use with adequate ventilation to keep airborne isocyanate level below TLV or 0.005 ppm TWA (ACGIH) and PEL 0.02 ppm ceiling (OSHA). These control limits do not apply to previously sensitized individuals, or to individuals with existing respiratory disease, such as bronchitis, emphysema or asthma. Respiratory protection may be needed where material is heated, sprayed or used in confined space, or if TLV is exceeded. Never try to detect MDI vapor by odor. Persons with known respiratory or allergic problems must not be exposed to this product.
Ventilation: MDI has a very low vapor pressure at room temperature. General/local ventilation typically controls exposure levels very adequately. More aggressive engineering controls or personal protective equipment may be required in some applications such as heating. Monitoring is required to determine engineering controls.
Eye/Face Protection - Chemical splash goggles, safety glasses or a full face shield must be used consistent with splash hazard present. If vapor exposure causes eye discomfort, use a full-face piece respirator or air supplied hood.
Skin Protection - Wear clothing and gloves impervious to MDI under conditions of use. Materials may include butyl rubber, nitrile rubber, neoprene and Saranex coated Tyvek.
Respiratory Protection - A supplied air, full face piece, positive pressure or continuous flow respirator or supplied air hood is required when airborne concentrations are unknown or exceed threshold values. A positive pressure self contained breathing apparatus can be used in emergencies or other unusual situations. All equipment must be NIOSH/MSHA approved and maintained. Air purifying (cartridge type) respirator are not approved for protection against isocyanates.

Ingredient(s) - Exposure Limits
4.4 Diphenylmethane Diisocyanate
ACGIH TLW - 0.005ppm ; OSHA PEL - 0.02

9. Physical And Chemical Properties

Appearance - Dark brown liquid
Odor - Mild odor

Chemical Type: Mixture
Physical State: Liquid
Boiling Point: 406 5 mm Hg °F
Packing Density: 10.31 lb/gal
Vapor Pressure: <10-5 (NW HG)
Vapor Density: S.5 (MDI) AIR=1
Solubility: Resin reacts slowly to liberate CO2 gas
Evaporation Rate: Slower than ethyl ether

10. Stability And Reactivity

Stability: Stable under normal conditions.
Hazardous Polymerization: May occur with incompatible reactants.

Conditions To Avoid (Stability) - Should be handled and stored in a way to avoid exposure to many common substances, including water and moisture. Avoid extended exposure 110 degree F (45 degree C).
Incompatible Materials - Reacts with water, acids, bases, alcohols & metal compounds.
Conditions To Avoid (Polymerization) - Incompatible reactants especially strong bases, water or temperatures over 320 degree F (160 degrees C). Possible evolution of carbon dioxide gas from overheating or exposure to contaminates

10. Stability And Reactivity - Continued

may rupture closed containers.

The reaction with water is very slow under 102 degrees F, but is accelerated at higher temperatures and in the presence of alkalis, tertiary amines and metal compounds. Some reactions can be vigorous and even violent.

11. Toxicological Information

Ingredient(s) - Carginogenicity
4.4 Diphenylmethane Diisocyanate
OSHA Regulated Carcinogen

Ingredient(s) - Toxicological Data
4.4 Diphenylmethane Diisocyanate
ca 100%

12. Ecological Information

No Data Available...

13. Disposal Considerations

Any disposal practice must be in compliance with all federal, state and local laws and regulations. Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance is the responsibility solely of the party generating the waste or deciding to discard or dispose of the material.

Container Disposal: Drums/containers must be thoroughly drained to process or storage vessels before removal to an appropriate area for subsequent decontamination. Drums/containers must be decontaminated in properly ventilated areas by personnel protected from the inhalation of isocyanate vapors. Spray or pour 1 to 5 gallons of decontamination solution into the drum making sure the walls are well rinsed. Let the drum container soak unsealed for 48 hours. Pour out the decontamination solution and triple rinse the empty container. Puncture or otherwise destroy the rinsed container before disposal. Do not heat or cut empty containers with electric or gas torch.
RCRA Information - MDI is not a hazardous waste. However, under RCRA, it is the responsibility of the user of products to determine, at any time of disposal, whether a product meets any of the criteria for hazardous water.

Refer to RCRA 40 - CFR 261 and/or any other appropriate Federal, State or Local requirements for proper classification information.

14. Transport Information

Proper Shipping Name - Caulking Compound

DOT Shipping Label
Caulking Compound.NOI.In Boxs (I-149610)

Freight Class
55
Additional Shipping Paper Description - **IMO** (Ocean): Not regulated
ICAO (Air): Not regulated

15. Regulatory Information

U.S. Regulatory Information - **TSCA Status:** On the TSCA inventory
CERCLA Reportable Quantity: 4,4, Diphenylmethane Diisocyanate = 5,000 lbs

15. Regulatory Information - Continued

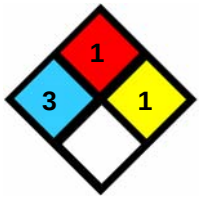
SARA Hazard Classes
Acute Health Hazard; Chronic Health Hazard; Reactivity Hazard

SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

SARA Section 313 Notification -

Ingredient(s) - U.S. Regulatory Information
4.4 Diphenylmethane Diisocyanate
SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

NFPA



HMIS

HEALTH	3
FLAMMABILITY	1
REACTIVITY	1
PERSONAL PROTECTION	J

16. Other Information

Revision/Preparer Information
This MSDS Supercedes A Previous MSDS Dated: 01/01/2002

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication Standard). This MSDS should be read and understood before using this product.

Disclaimer

The above information pertains to this product as currently formulated and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the product.

Marflex Building Solutions makes no warranties, express or implied and assumes no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purposes(s).

Mar-flex Building Solutions

MATERIAL SAFETY DATA SHEET

Quick Foam Fine Urethane (Side B)

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Middletown, OH 45042 USA

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FAX Number: 513-422-7282
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Web Site: www.mar-flex.com

Supplier Emergency Contacts & Phone Number
Chem-Trec: 1-800-424-9300

Manufacturer Emergency Contacts & Phone Number
Chem-Trec: 1-800-424-9300

Issue Date: 09/24/2009

Product Name: Quick Foam Fine Urethane (Side B)
CAS Number: Not Established
Chemical Family: Polyol Blend
MSDS Number: 69
Product Code: IA-68100
Product/Material Uses - Used in conjunction with "Side A" to seal cracks that are hairline to 1/8".
Product Identification Text - Side "B" of a 2 Part Cartridge

2. Composition/Information On Ingredients

Ingredient Name	CAS Number		Percent Of Total Weight
TRADE SECRET	Not Establis		

EMERGENCY OVERVIEW

Harmful if inhaled. Toxic fumes are released in fire situations.

3. Hazards Identification

Primary Routes(s) Of Entry - Eye, Skin, Ingestion & Inhalation.
Eye Hazards - This blend will cause irritation on contact. Symptoms include watering or discomfort of the eyes with marked excess redness and swelling of the conjunctiva and chemical burns of the cornea. Tertiary amines can produce a blurring of vision against a general bluish haze and the appearance of halos around bright objects (referred to as "blue haze"). Tertiary amines can also cause severe conjunctivitis.
Skin Hazards - Prolonged contact may lead to burning associated with severe reddening, swelling and tissue destruction.
Ingestion Hazards - The tertiary amines from this blend could cause severe irritation and possible chemical burns of the mouth, throat, esophagus and stomach with pain or discomfort in the mouth, throat, chest and abdomen.
Inhalation Hazards - Heating, foaming or otherwise mechanically dispersing (drumming, venting or pumping) operations of this blend may generate more vapor or aerosol concentrations of its components. This blend contains tertiary amine in amounts less than what is required to report as hazardous, however the tertiary amine component is severely irritating to the upper respiratory tract and mucous membranes of the nose and throat and can result in coughing, chest discomfort and headache.
Signs And Symptoms - Symptoms include nausea, vomiting, diarrhea, thirst, circulatory collapse and coma.

MATERIAL SAFETY DATA SHEET

Quick Foam Fine Urethane (Side B)

First Aid (Pictograms)

4. First Aid Measures

Eye - Immediately wash affected areas with plenty of water and seek medical attention.
Skin - Immediately wash affected areas with plenty of water and seek medical attention.
Ingestion - Induce vomiting by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person.
Inhalation - Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility immediately.

Fire Fighting (Pictograms)

5. Fire Fighting Measures

Flash Point: NDA °F
Autoignition Point: NDA °F

Fire And Explosion Hazards - **Fire Degradation Products**: Toxic fumes are released in fire situations. Combustion may produce carbon dioxide, carbon monoxide and nitrogen oxides.
Extinguishing Media - Use dry chemical foam, carbon dioxide, halogenated agents or water. Use cold water spray to cool containers exposed to fire to minimize risk of rupture. A solid stream of water directed into the hot burning liquid could cause frothing. If possible, contain fire run-off water.
Fire Fighting Instructions - **Protective Equipment**: Wear positive pressure self contained breathing apparatus with full face piece and full protective clothing.

6. Accidental Release Measures

Spills: Evacuate spill area. Remove all sources of flames, heating elements, gas engines, etc. Emergency clean up personnel should wear chemical goggles, rubber or plastic gloves and clothing as required to protect against contact. If mist and or hot vapors are present, use air purifying respirator or self contained breathing apparatus as required. The type of respirator selected should prevent exposure from traces of propylene oxide which may be present. Prevent spreading and contamination of surface waters and drinking supplies. Notify local health officials and other appropriate agencies if such contamination should occur.
Clean Up: With adequate ventilation and appropriate personal protective equipment, cover the area with an inert absorbent material such as clay or vermiculite and transfer to steel waste containers. The spill area should then be washed down with soap and water to dilute and remove traces of material. Ventilate area to remove the remaining vapors.

Handling & Storage (Pictograms)

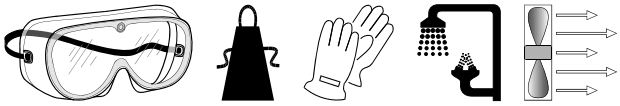
7. Handling And Storage

Handling And Storage Precautions - When stored between 60 degrees F and 85 degrees F (15 to 30 degrees C) in sealed containers, typical shelf life is six months or more from the date of manufacture. Consult technical data sheet for

7. Handling And Storage - Continued

shelf life requirements affecting performance quality. Should freezing occur, the material must be thawed thoroughly and mixed until uniform. Opened containers must be handled properly to prevent moisture contamination.
Storage Precautions - **DO NOT ALLOW TO FREEZE.**
Heating: Use personal protective equipment when transferring material to or from drums, totes, or other containers. Safety glasses and gloves are the minimum protection. Additional precautions must be used when splash hazards are present. The reaction of polyols and isocynates generate heat. Contact of the reacting materials with skin and eyes can cause severe burns and may be difficult to remove from the affected areas. In addition, such contact increases the risk of exposure to isocyanate vapors. Do not smoke or use naked lights, open flames, space heaters or other ignition sources near pouring or frothing operations.

Protective Clothing (Pictograms)



8. Exposure Controls/Personal Protection

Engineering Controls - **Ventilation -** General/local ventilation typically controls exposure levels very adequately. More aggressive engineering controls or personal protective equipment may be required in some applications such as heating. Monitoring is required to determine engineering controls.
Eye/Face Protection - Chemical splash goggles, safety glasses or a full face shield must be used consistent with splash hazard present. If vapor exposure causes eye discomfort, use a full-face piece respirator or air supplied hood. Contact lenses should not be worn by persons who work with this product.
Skin Protection - Wear clothing and gloves impervious to MDI under conditions of use. Materials may include butyl rubber, nitrile rubber, neoprene and Saranex coated Tyvek.
Respiratory Protection - The specific respirator selected must be based on contamination levels of this blend found in the workplace and must not exceed the working limits of the respirator and be jointly approved by NIOSH/MSHA. Air purifying respirators equipped with full face organic vapor cartridges can be used only if isocyanate vapors are not present from the "A" component. In areas of high concentration, fresh air supplied respirators or self contained breathing apparatus should be used. A positive pressure self contained breathing apparatus can be used in emergencies or other unusual situations.
Other/General Protection -
An eye wash station and safety shower or other drenching facilities are recommended in the work area.

9. Physical And Chemical Properties

Appearance - Clear yellow liquid.

Chemical Type: Mixture
Physical State: Liquid
Boiling Point: NA °F
Specific Gravity: 1.08
Percent Volatiles: <3%
Vapor Pressure: ND
Vapor Density: Heavier than air
Solubility: In Water - Partial
Evaporation Rate: Slower than Ethyl Ether

10. Stability And Reactivity

Stability: This is a stable material.
Hazardous Polymerization: Will occur.

10. Stability And Reactivity - Continued

Conditions To Avoid (Stability) - Avoid high temperatures, sparks, flame and extended exposure over 110 degrees F.
Incomplete with oxidizing materials, isocyanates and acids.

11. Toxicological Information

Chronic/Carcinogenicity - The components of this blend are not listed by the NTP, IARC or regulated by OSHA as carcinogens.

12. Ecological Information

No Data Available...

13. Disposal Considerations

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Container Disposal - Empty containers retain product residue (liquid and/or vapor) can be dangerous. Do not pressurize, or expose such containers to heat, flame, sparks, static electricity or other sources of ignition. All containers should be disposed in an environmentally safe manner and in accordance with government regulations.

RCRA Information - Refer to RCRA 40- CFR 261 and/or any other appropriate federal, state or local requirements for proper classification information.

14. Transport Information

Proper Shipping Name - Caulking Compound

Hazard Class
Combustable Class III B

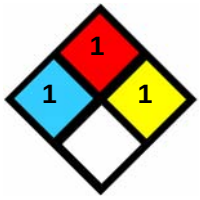
DOT Shipping Label
Caulking Compound.NOI.In Boxes (I-149610)

Freight Class
55
Additional Shipping Paper Description - **IMO** (Ocean): Not regulated
ICAO (Air): Not regulated

15. Regulatory Information

No Data Available...

NFPA



HMIS

HEALTH	2
FLAMMABILITY	1
REACTIVITY	1
PERSONAL PROTECTION	J

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