

**Section 1 - Identification**

- 1.1 Product Identifier:** Soft Expanding Polyurethane Foam Part A
- 1.2 General Use:** Catalyst for Polyurethane Foam
- 1.3 Manufacturer:** The Monster Makers, Inc.,  
13597 West Parkway Rd., Cleveland, OH 44135  
Phone: (216) 671-8700  
[sales@monstermakers.com](mailto:sales@monstermakers.com)
- 1.4 Emergency Contact:** Chem-Tel  
Domestic: 800-255-3924 International 813-248-0585

**Section 2 - Hazards**

- 2.1 Classification of the substance or mixture**
- Skin Irritation, Category 2
  - Acute toxicity, Inhalative, Category 4
  - Sensitization of respiratory airways, Category 1
  - Eye Irritation, Category 2
  - Carcinogenicity, Category 2
  - Sensitization of the skin, Category 1
  - Specific target organ toxicity (single exposure), Category 3
  - Specific target organ toxicity (repeated exposure), Category 2
- 2.2 GHS Label elements, including precautionary statements**

**Pictograms:****Signal Word:** Danger

General

May cause an allergic skin reaction

Harmful if inhaled

May cause respiratory irritation

May cause damage to organs through prolonged or repeated exposure

Causes skin irritation

Causes serious eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Suspected of causing cancer

Do not breathe fume/gas/mist/vapors/spray

Wear protective gloves/eye protection/face protection

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing



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IF ON SKIN: Wash with plenty of soap and water

### Hazards not otherwise classified (HNOC) or not covered by GHS

Persons with respiratory conditions should avoid handling this product

### Section 3 - Composition / Information on Ingredients

#### 3.1 Substances

CAS#	Weight %	Name
101-68-8	50%	Diphenylmethane-4,4' -diisocyanate (MIDI)
26447-40-5	30%	Diphenylmethane diisocyanate (MIDI 2,2; 2,4)
9016-87-9	20%	P-MIDI

### Section 4 - First Aid Measures

#### 4.1 Description of first aid measures

**Inhalation:** Remove affected individual to fresh air and keep person calm. Assist in breathing if necessary. Immediate medical attention required.

**Eye Contact:** Rinse for at least 15 minutes with water. Immediate attention for irritation.

**Skin Contact:** Wash affected areas with soap and water. Seek medical attention for irritation

**Ingestion:** Rinse for at least 15 minutes with water. Immediate medical attention required.

#### 4.2 Most important symptoms and effects, both acute and delayed: None

#### 4.3 After first aid, get appropriate in-plant, paramedic, or community medical support.

### Section 5 - Fire-Fighting Measures

#### 5.1 Extinguishing Media: Carbon dioxide, foam, dry powder, water spray

**Unsuitable Extinguishing Media:** High volume water jet

#### 5.2 Special hazards arising from the substance or mixture: Burning releases CO, CO<sub>2</sub>, oxides of nitrogen, isocyanate vapors and traces of hydrogen cyanide.

#### 5.3 Advice for firefighters: Firefighters should wear appropriate protective equipment and a self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet, and protective clothing should be worn.

### Section 6 - Accidental Release Measures

#### 6.1 Personal Precautions, protective equipment and emergency procedures:

Immediately contact emergency personnel. Evacuate the area. Keep upwind to avoid inhalation of vapors. Clean-up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection. Use suitable protective equipment

#### 6.2 Environmental precautions: Do not discharge into drains/surface waters/groundwater

#### 6.3 Methods and materials for containment and cleaning up: Remove mechanically; cover remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approx. one hour transfer to waste container and do not seal (evolution of CO<sub>2</sub>?). Keep damp in a safe ventilated area for several days.

Spill area can be decontaminated with the following recommended decontamination solution:



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Decontamination solution #1: 8-10% sodium carbonate and 2% liquid soap in water.

Decontamination solution #2: Liquid/yellow soap (potassium soap with ~15% anionic surfactant): 20 ml;  
Water: 700ml; Polyethylene glycol (PEG 400): 350 ml

#### Section 7 - Handling and Storage

**7.1 Precautions for safe handling:** Provide sufficient air exchange and/or exhaust in work rooms. Occupational exposure limits should not be exceeded. Contact with skin and eye and inhalation of vapors must be avoided. Keep away from foodstuffs, drinks, and tobacco. Wash hands before breaks and at end of work.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep container tightly closed and protect against moisture. Segregate from bases. Store 32F – 110F.

#### Section 8 – Exposure Controls / Personal Protection

**8.1 Control Parameters:**

Component	Type	Value
P-MDI	OSHA PEL	CLV 0.02 ppm 0.2 mg/m3
Diphenylmethan-4,4'-diisocyanate (MDI)	OSAH PEL	CLV 0.02 ppm 0.2 mg/m3

**Exposure controls:** Install local exhaust ventilation device if vapor, fume, mist, or power dust generates. Provide an emergency eyewash and a quick drench shower in the immediate work area

**Respiratory Protections:** Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.

**Hand Protection:** Impervious (chemical-/oil-proof) protective gloves

**Eye Protection:** Safety glasses with side shield. (Goggle type if necessary)

**Other Protective Clothing/Equipment:** None

**Comments:** None.

#### Section 9 - Physical and Chemical Properties

**9.1 Information on basic physical and chemical properties:**

<b>Appearance:</b> Dark Amber viscous liquid	<b>Vapor Pressure:</b> .00016 mmHg
<b>Odor/Threshold:</b> Earthy, musty	<b>Vapor Density (Air=1):</b> N/A
<b>pH:</b> N/A	<b>Specific Gravity (H2O=1, at 4C):</b> N/A
<b>Melting Point/Freezing Point:</b> 3C	<b>Water Solubility:</b> Reacts with water
<b>Low/High Boiling Point:</b> >300 C	<b>Partition Coefficient:</b> N/A
<b>Flash point:</b> >250 C	<b>Auto-Ignition Temperature:</b> N/A
<b>Evaporation Rate :</b> Not established	<b>Decomposition Temperature:</b> N/A
<b>Flammability:</b> N/A	<b>Viscosity:</b> N/A
<b>UEL/LEL:</b> N/A	<b>% Volatile:</b> N/A

#### Section 10 - Stability and Reactivity

**10.1 Reactivity:** Stable



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- 10.2 Chemical Stability:** Stable at room temperature. Reaction with water (moisture produces CO<sub>2</sub> gas. Exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. MIDI is insoluble with, and heavier than, water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by liberating CO<sub>2</sub> gas.
- 10.3 Possibility of hazardous reactions:** Exothermic reaction with amines and alcohols; reacts with water forming CO<sub>2</sub>; in closed containers, risk of bursting owing to increase of pressure.
- 10.4 Conditions to avoid:** Avoid high temperatures
- 10.5 Incompatible Materials:** water, alcohols, strong bases, amines, acids
- 10.6 Hazardous Decomposition Products:**  
Carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN

### Section 11 - Toxicological Information

**11.1 Information on Toxicological Effects:**

**Acute Toxicity:** LC50: 0.49mg/l, vapor 4hr rat

**Chronic Toxicity:** 2 years, inhalation; NOAEL: 0.2mg/m<sup>3</sup>, (rat, Male/Female, 6hrs/day 5 days/week)

**Likely routes of exposure:** Skin, inhalation

**Symptoms related to physical, chemical and toxicological characteristics:**

Minor skin irritation, asthma-like symptoms

**Delayed and immediate effects and chronic effects from short and long-term exposure:**

Possible sensitization

### Section 12 - Ecological Information

- 12.1 Ecotoxicity:** Not a marine pollutant
- 12.2 Persistence and Degradability:** No known significant effects
- 12.3 Bioaccumulative Potential:** Does not bioaccumulate
- 12.4 Mobility in Soil:** N/A

### 13 - Disposal Considerations

**13.1 Waste Treatment Methods:** Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system. Do not burn empty drums or cut open with gas or an electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

### Section 14 - Transport Information

- 14.1 UN Number:** NA3082  
**Class:** 9  
**Packing Group:** III  
**Additional Information:** Reportable quantity 5000lbs

**China:** Not Classified as a dangerous good.



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Sea transport:

IMDG: Not classified as a dangerous good.

Air transport:

IATA/ICAO: Not classified as a dangerous good.

**Section 15 - Regulatory Information**

15.1 Safety Health and environmental regulation/legislation specific for the substance or mixture:  
In the United States (EPA Regulations): N/A

TSCA Inventory Status (40 CFR710): All components listed.

SARA 302 Components: N/A

SARA 311/312 Hazard(s): N/A

SARA 313 Components: Methylene Bis Phenylisocyanate 101-68-8 5000lbs See SDS- A Component  
(Same as Diphenylmethane diisocyanate (MIDI))  
Polymeric Diphenylmethan diisocyanate 9016-87-9 See SDS- A Component

**Section 16 - Other Information**

HMIS	
H	3
F	0
R	0



SDS Version: 2

Date Prepared: 7/16/18

**Glossary:** ACGIH-American Conference of Governmental Industrial Hygienists; ANSI-American National Standards Institute; Canadian TDG-Canadian Transportation of Dangerous Goods; CASChemical Abstract Service; Chemtrec-Chemical Transportation Emergency Center (US); CHIPChemical Hazard Information and Packaging; DSL-Domestic Substances List; EC-Equivalent Concentration; EH40 (UK)-HSE Guidance Note EH40 Occupational Exposure Limits; EPCRAEmergency Planning and Community Right-To-Know Act; ESL-Effects screening levels; GHS-Globally Harmonized System of Classification and Labelling of Chemicals; HMIS-Hazardous Material Information Service; IATA-International Air Transport Association; IMDG-International Maritime Dangerous Goods Code; LC-Lethal Concentration; LD-Lethal Dose; LEL-Lower Explosion Level; NFPA-National Fire Protection Association; OEL-Occupational Exposure Limit; OSHA-Occupational Safety and Health Administration, US Dept. of Labor; PEL-Permissible Exposure Limit; SARA (Title III)-Superfund Amendments and Reauthorization Act; SARA 313-Superfund Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQTexas Commission on Environmental Quality; TLV-Threshold Limit



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Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; UEL-Upper Explosion Level; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

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**Section 1 - Identification**

- 1.1 **Product Identifier:** Soft Expanding Polyurethane Foam Part B
- 1.2 **General Use:** Polyurethane Resin
- 1.3 **Manufacturer:** The Monster Makers, Inc.,  
13597 West Parkway Rd., Cleveland, OH 44135  
Phone: (216) 671-8700  
[sales@monstermakers.com](mailto:sales@monstermakers.com)
- 1.4 **Emergency Contact:** Chem-Tel  
Domestic: 800-255-3924 International 813-248-0585

**Section 2 - Hazards**

- 2.1 **Classification of the substance or mixture**  
Skin Irritation, Category 3  
Eye Irritation, Category 2
- 2.2 **GHS Label elements, including precautionary statements**



**Pictograms:**

**Signal Word:** Warning  
General

- May cause skin irritation
- May cause respiratory irritation
- May cause eye irritation

Do not breathe fume/gas/mist/vapors/spray  
 Wear protective gloves/eye protection/face protection  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 IF ON SKIN: Wash with plenty of soap and water

**Hazards not otherwise classified (HNOC) or not covered by GHS**

**Section 3 - Composition / Information on Ingredients**

**3.1 Substances**

Name	CAS#	% by Weight
Tertiary amine catalysts	Proprietary blend	<1

**Section 4 - First Aid Measures**

**4.1 Description of first aid measures**



**Inhalation:** Move to fresh air if symptoms develop. If breathing is difficult, give oxygen and call physician.

**Eye Contact:** Flush with water for at least 15 minutes. See a physician if irritation develops

**Skin Contact:** Wash with soap and water first opportunity

**Ingestion:** Induce vomiting; get medical attention

**4.2 Most important symptoms and effects, both acute and delayed:** May cause skin or eye irritation upon contact. Avoid breathing vapors. The dense vapors can displace and reduce breathing air in confined or unventilated spaces causing asphyxiation. Overexposure may cause tremors, confusion, irritation, and may result in cardiac sensitization

**4.3 After first aid, get appropriate in-plant, paramedic, or community medical support.**

**Section 5 - Fire-Fighting Measures**

**5.1 Extinguishing Media:** Water, dry chemicals, CO2

**5.2 Special hazards arising from the substance or mixture:** None

**5.3 Advice for firefighters:** A self-contained breathing apparatus should be worn to protect against toxic and irritating vapors.

**Section 6 - Accidental Release Measures**

**6.1 Personal Precautions, protective equipment and emergency procedures:**  
Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

**6.2 Environmental precautions:** Do not discharge into drains/surface waters/groundwater

**6.3 Methods and materials for containment and cleaning up:** Absorb with sawdust, etc., and shovel into container. Waste material should be disposed of under conditions which meet federal, state, and local environmental regulations.

**Section 7 - Handling and Storage**

**7.1 Precautions for safe handling:** Store between 65F and 85F out of sunlight. Relieve pressure slowly when opening container. Under no circumstances should empty drums be burned or cut open with an electric or gas torch.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep tightly sealed.

**Section 8 – Exposure Controls / Personal Protection**

**8.1 Control Parameters:**

Component	Type	Value
Tertiary Amine Catalysts*	TWA	None Established

\*Not listed as a carcinogen (NTA, IARC, OSHA)

**Exposure controls:** Install local exhaust ventilation device if vapor, fume, mist, or power dust generates. Provide an emergency eyewash and a quick drench shower in the immediate work area

**Respiratory Protections:** The specific respirator selected must be based on contamination levels of this material found in the workplace and the working limits of the respirator. A supplied air, full-face mask, positive pressure or continuous flow respirator or a supplied air hood is required when airborne





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concentrations are unknown or exceed threshold limit values. A positive pressure, self-contained breathing apparatus can be used in emergencies or other unusual situations. Full-face air purifying respirators equipped with organic vapor cartridges can be used in certain situations, *see OSHA standard 29CFR 1910.134*. All equipment must be NIOSH approved and maintained.

**Hand Protection:** Impervious (chemical-/oil-proof) protective gloves

**Eye Protection:** Safety glasses with side shield. (Goggle type if necessary)

**Other Protective Clothing/Equipment:** None

**Comments:** None.

### Section 9 - Physical and Chemical Properties

#### 9.1 Information on basic physical and chemical properties:

<b>Appearance:</b> Amber viscous liquid <b>Odor/Threshold:</b> Faint ammoniacal <b>pH:</b> N/A <b>Melting Point/Freezing Point:</b> <32F <b>Low/High Boiling Point:</b> >200F <b>Flash point:</b> >200F <b>Evaporation Rate :</b> Slower than ether <b>Flammability:</b> N/A <b>UEL/LEL:</b> N/A	<b>Vapor Pressure:</b> N/A <b>Vapor Density (Air=1):</b> N/A <b>Specific Gravity (H2O=1, at 4C):</b> N/A <b>Water Solubility:</b> Highly soluble in water <b>Partition Coefficient:</b> N/A <b>Auto-Ignition Temperature:</b> >500F <b>Decomposition Temperature:</b> >500F <b>Viscosity:</b> N/A <b>% Volatile:</b> N/A
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### Section 10 - Stability and Reactivity

**10.1 Reactivity:** Stable

**10.2 Chemical Stability:** No self-reactivity

**10.3 Possibility of hazardous reactions:** N/A

**10.4 Conditions to avoid:** N/A

**10.5 Incompatible Materials:** Isocyanates and other chemicals that react with hydroxyl groups

**10.6 Hazardous Decomposition Products:** When burned, CO, CO<sub>2</sub>, NO<sub>x</sub> aliphatic fragments

### Section 11 - Toxicological Information

#### 11.1 Information on Toxicological Effects:

**Acute Toxicity:** May cause skin irritation

**Chronic Toxicity:** N/A

**Likely routes of exposure:** Skin

**Symptoms related to physical, chemical and toxicological characteristics:**

May cause skin irritation

**Delayed and immediate effects and chronic effects from short and long-term exposure:**

May cause skin irritation; avoid contact with eyes.

### Section 12 - Ecological Information

**12.1 Ecotoxicity:** Not a marine pollutant

**12.2 Persistence and Degradability:** No known significant effects

**12.3 Bioaccumulative Potential:** Does not bioaccumulate

**12.4 Mobility in Soil:** N/A



**13 - Disposal Considerations**

**13.1 Waste Treatment Methods:** R Component drums can be sent to drum reconditioners or disposed of as ordinary industrial waste in compliance with pertinent regulations.

**Section 14 - Transport Information**

- 14.1 UN Number: N/A
- 14.2 UN Proper Shipping Name: N/A
- 14.3 Transport Hazard Class(es): N/A
- 14.4 Packing Group: N/A
- 14.5 Environmental Hazards: N/A

**Section 15 - Regulatory Information**

**15.1 Safety Health and environmental regulation/legislation specific for the substance or mixture: In the United States (EPA Regulations):** N/A

**TSCA Inventory Status (40 CFR710):** All components listed.

**SARA 302 Components:** N/A

**SARA 311/312 Hazard(s):** N/A

**SARA 313 Components:** N/A

**Section 16 - Other Information**

HMIS	
H	1
F	0
R	0



**SDS Version:** 2

**Date Prepared:** 7/16/18

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Amendments and Reauthorization Act, Section 313; SCBA-Self-Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ-Texas Commission on Environmental Quality; TLV-Threshold Limit Value; TSCA-Toxic Substances Control Act Public Law 94-469; TWA-Time Weighted Value; UEL-Upper Explosion Level; US DOT-US Department of Transportation; WHMIS-Workplace Hazardous Materials Information System.

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