



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** JFOAM BX-450-T  
**Other means of identification**  
**Product code** KA8600  
**Recommended use** Polyol  
**Recommended restrictions** For industrial use only.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** J6 Polymers LLC  
**Address** 601 Derby Line Rd.  
Genoa, IL 60135  
USA  
**Telephone** General 1-815-517-1179  
**E-mail** Not available.  
**Emergency phone number** Medical 1-800-228-5635  
Chemtrec Chemtrec 1-800-424-9300  
Int'l +1 703-527-3887

## 2. Hazard(s) identification

**Physical hazards** Not classified.  
**Health hazards** Acute toxicity, inhalation Category 4  
Skin corrosion/irritation Category 2  
Serious eye damage/eye irritation Category 2A  
Sensitization, respiratory Category 1B  
Sensitization, skin Category 1B  
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation  
Specific target organ toxicity, repeated exposure Category 1  
**Environmental hazards** Not classified.  
**OSHA defined hazards** Not classified.  
**Label elements**



**Signal word** Danger  
**Hazard statement** Causes skin irritation. May cause an allergic skin reaction. Harmful if inhaled. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure.  
**Prevention** Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. Wear eye/face protection. Wear respiratory protection.  
**Response** If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Specific treatment is urgent (see this label). If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.  
**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.  
**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.  
**Hazard(s) not otherwise classified (HNOC)** None known.  
**Supplemental information** Not applicable.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
_Isocyanic acid, polymethylenepolyphenylene ester		9016-87-9	45 - 55
_Methylenebisphenylene diisocyanate (MDI)		101-68-8	35 - 45
_Diphenylmethane diisocyanate		26447-40-5	1 - 5

### 4. First-aid measures

#### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

#### Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Take off contaminated clothing and wash before reuse.

#### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

#### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

#### Most important symptoms/effects, acute and delayed

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause allergic respiratory reaction. May cause redness and pain. Prolonged exposure may cause chronic effects.

#### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

#### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

#### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

#### Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

#### Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

#### Fire-fighting equipment/instructions

Move containers from fire area if you can do so without risk.

#### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

#### General fire hazards

No unusual fire or explosion hazards noted.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not breathe vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

#### Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

#### Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Do not breathe vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

### Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)	Ceiling	0.2 mg/m <sup>3</sup>
		0.02 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)	TWA	0.005 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)	Ceiling	0.2 mg/m <sup>3</sup>
		0.02 ppm
	TWA	0.05 mg/m <sup>3</sup> 0.005 ppm

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

#### Hand protection

Wear appropriate chemical resistant gloves.

#### Skin protection

#### Other

Wear appropriate chemical resistant clothing.

#### Respiratory protection

Avoid exposure - obtain special instructions before use. Protection against this substance requires special consideration. In case of insufficient ventilation, wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. or Wear positive pressure self-contained breathing apparatus (SCBA).

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

### Appearance

Not available.

#### Physical state

Liquid.

#### Form

Not available.

#### Color

Brown.

### Odor

Not available.

### Odor threshold

Not available.

### pH

Not available.

### Melting point/freezing point

< 32 °F (< 0 °C)

<b>Initial boiling point and boiling range</b>	406 °F (207.8 °C)
<b>Flash point</b>	> 390 °F (> 198.9 °C) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Estimated slower than ethyl ether.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 0.000100 mm Hg @ 25C
<b>Vapor density</b>	8.5 (air = 1)
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not soluble
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	200 cP @ 25C
<b>Other information</b>	
<b>Bulk density</b>	10.3 lb/gal
<b>Specific gravity</b>	1.2400 @ 25C

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Strong oxidizing agents. Alkaline metals. Alcohols. Phenols.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Expected to be a low ingestion hazard.
<b>Inhalation</b>	Harmful if inhaled. May cause damage to organs by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Skin contact</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.

### Information on toxicological effects

**Acute toxicity** Harmful if inhaled. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Note: The initial acute inhalation classification of Category 2 (0.49 mg/L) has been revised to more accurately reflect the conditions in which the product is to be applied. The test conditions found in the animal studies do not properly reflect the conditions of the workplace when proper respiratory protections are followed nor the manner in which the product can reasonably be expected to be used.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
JFOAM BX-450-T <b>Acute</b> <i>Dermal</i> LD50	Rabbit	> 10000 mg/kg

Product	Species	Test Results
<i>Inhalation</i> LD50	Rat	0.49 mg/l, 4 h
<i>Oral</i> LD50	Rat	> 2000 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin irritation.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.	
<b>Respiratory or skin sensitization</b>		
<b>Respiratory sensitization</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
<b>Skin sensitization</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
_Diphenylmethane diisocyanate (CAS 26447-40-5)	3 Not classifiable as to carcinogenicity to humans.	
_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)	3 Not classifiable as to carcinogenicity to humans.	
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Not listed.		
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Specific target organ toxicity - single exposure</b>	Respiratory tract irritation.	
<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure.	
<b>Aspiration hazard</b>	Not applicable.	
<b>Chronic effects</b>	Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure.	

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
	<b>Product</b>	<b>Species</b>	<b>Test Results</b>
	JFOAM BX-450-T		
	<i>Acute</i>		
	Algae	NOEC	Algae 1640 mg/l, 72 hours
	Crustacea	EC50	Daphnia 1000 mg/l, 24 hours
	Fish	LC0	Fish > 1000 mg/l, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.		
<b>Bioaccumulative potential</b>	No data available.		
<b>Mobility in soil</b>	No data available.		
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

## 13. Disposal considerations

<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

<b>General</b>	When in individual containers of less than the Product RQ, this material ships as non-regulated.
<b>DOT</b>	
<b>UN number</b>	UN3082

**UN proper shipping name** Environmentally Hazardous Substance, Liquid, N.O.S. (\_Methylenebisphenylene diisocyanate (MDI) RQ = 12500 lbs)

**Transport hazard class(es)**

**Class** 9

**Subsidiary risk** -

**Packing group** III

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IATA**

**UN number** UN3082

**UN proper shipping name** RQ, Environmentally Hazardous Substance, Liquid, N.O.S. (\_Methylenebisphenylene diisocyanate (MDI))

**Transport hazard class(es)**

**Class** 9

**Subsidiary risk** -

**Packing group** III

**Environmental hazards** No.

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number** UN3082

**UN proper shipping name** RQ, Environmentally Hazardous Substance, Liquid, N.O.S. (\_Methylenebisphenylene diisocyanate (MDI))

**Transport hazard class(es)**

**Class** 9

**Subsidiary risk** -

**Packing group** III

**Environmental hazards**

**Marine pollutant** No.

**EmS** Not available.

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

**DOT; IATA; IMDG**



**15. Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

\_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8) Listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - Yes  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
_Isocyanic acid, polymethylenepolyphenylene ester	9016-87-9	45 - 55

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
_Methylenebisphenylene diisocyanate (MDI)	101-68-8	35 - 45

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

\_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****US - New Jersey Community RTK (EHS Survey): Reportable threshold**

\_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8) 500 lbs

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

\_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)

**US. Massachusetts RTK - Substance List**

\_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)

**US. Rhode Island RTK**

\_Methylenebisphenylene diisocyanate (MDI) (CAS 101-68-8)

**US. California Proposition 65**

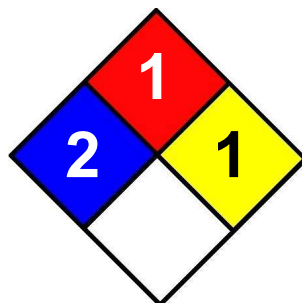
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision****Issue date** 06-26-2015**Revision date** 12-27-2017**Version #** 02**NFPA ratings**

**Disclaimer**

Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.

**Revision Information**

Product and Company Identification: Product and Company Identification  
Composition / Information on Ingredients: Disclosure Overrides  
Fire Fighting Measures:  
Physical & Chemical Properties:  
HazReg Data: North America  
Index: United States