



# SAFETY DATA SHEET

## 1. IDENTIFICATION

**Product Name:**

Foam Kit  
A/ISO Component

**Other Means of Identification:**

MDI, PMDI, A-Side

**Recommended Use:**

Polyurethane Component

**Company Information:**

BMK Corporation  
4135 Galley Court  
Earth City, MO 63045  
888.290.7807  
www.bmkcorporation.com

### EMERGENCY RESPONSE

#### HEALTH & SAFETY

First Aid • Treatment  
Call ProPharma Group Co.  
Dedicated #: 800.391.2138

#### CHEMICAL SPILLS

CALL CHEMTREC  
United States: 800.424.9300  
International: +1.703.527.3887  
www.chemtrec.com  
Reference: CCN 8678

## 2. HAZARDS IDENTIFICATION

**Hazard Classification:**

Acute toxicity – Category 4 - Inhalation  
Eye irritation – Category 2B  
Respiratory sensitisation – Category 1  
Skin irritation – Category 2  
Skin sensitisation – Category 1  
Specific target organ toxicity – single exposure – Category 3

**Label Elements:**

Hazard pictograms:



Signal Word: DANGER

**Hazards:**

Causes skin and eye irritation.  
May cause an allergic skin reaction.  
Harmful if inhaled.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.

**Precautionary Statements:****Prevention:**

Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Do not breathe dust/fume/gas/mist/vapor/spray.  
 Use only outdoors or in a well-ventilated area.  
 In case of inadequate ventilation, use respiratory protection.  
 Wash hands thoroughly after handling.  
 Wear protective gloves, protective clothing and eye protection.  
 Contaminated work clothing must not be allowed out of the workplace.

**Response:**

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory problems, get medical advice/attention.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.  
 IF INGESTED: Do not induce vomiting unless directed to do so by a medical professional.  
 Get medical advice/attention.

**Storage:**

Store in a cool, covered, well-ventilated place away from direct sunlight. Keep container tightly closed and store locked up. Do not expose to moisture. Do not expose to excessive heat. Do not allow to freeze. Ideal storage temperatures are 50°-90°F (10°-32°C). Keep out of reach of children.

**Disposal:**

Dispose of contents/containers to an approved waste disposal plant in accordance with local, state, national and international regulations.

**Other Hazards:**

No data available.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CASRN	Concentration
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9	100%
4,4' -Methylenediphenyl diisocyanate	101-68-8	40.0 – 50.0%

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.



#### 4. FIRST-AID MEASURES

**General Advice:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Skin Contact:** Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Suitable emergency safety shower facility should be available in work area.

**Eye Contact:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Most Important Symptoms and Effects, Both Acute and Delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any Immediate Medical Attention and Special Treatment Needed.**

**Notes to Physician:** Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Treat bronchospasm with inhaled beta2 agonist and oral or parenteral corticosteroids. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).



## 5. FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Unsuitable Extinguishing Media:** Do not use direct water stream. May spread fire.

**Specific Hazards:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: nitrogen oxides, isocyanates, hydrogen cyanide, carbon monoxide and carbon dioxide.

**Unusual Fire and Explosion Hazards:** Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this SDS.

**Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Protective Equipment:** Use personal protective clothing.

**Emergency Procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Keep upwind of spill. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. If available, use foam to smother or suppress. Refer to section 7, for additional precautionary measures. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.



## 6. ACCIDENTAL RELEASE MEASURES (cont.)

**Containment and Cleanup:** Contain spilled material if possible. Absorb with materials such as: dirt, vermiculite, sand and clay. Do NOT use absorbent materials such as: Cement powder (Note: may generate heat). Collect in suitable and properly labeled open containers. Do not place in sealed containers. Suitable containers include: metal drums, plastic drums and polylined fiber pacs. Wash the spill site with large quantities of water. Attempt to neutralize by adding suitable decontaminant solution: Formulation 1: sodium carbonate 5 - 10%; liquid detergent 0.2 - 2%; water to make up to 100%, OR Formulation 2: concentrated ammonia solution 3 - 8%; liquid detergent 0.2 - 2%; water to make up to 100%. If ammonia is used, use good ventilation to prevent vapor exposure. Contact your supplier for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Avoid breathing vapor. Use with adequate ventilation. Keep container tightly closed. See Section 8, Exposure Controls/Personal Protection.

Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

**Conditions for Safe Storage:** Store in a dry place. Protect from atmospheric moisture. Do not store product contaminated with water to prevent potential hazardous reaction. See Section 10 for more specific information. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact.

**Storage Stability:**

**Storage Period:** 6 Months

**Storage Temperature:** 15 - 38°C (59 - 100°F)

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits:**

Component	Type	Value
4,4' -Methylenediphenyl diisocyanate	TWA	0.005 ppm
	C	0.02 ppm

**Exposure Controls:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure.



## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (cont.)

### Personal Protective Equipment:

**Eye/Face Protection:** Use chemical goggles.

**Skin Protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: butyl rubber, polyethylene, chlorinated polyethylene and ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: viton, neoprene, polyvinyl chloride ("PVC" or "vinyl") and nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory Protection:** Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: organic vapor cartridge with a particulate pre-filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>Physical State:</b>	Liquid
<b>Color:</b>	Brown
<b>Odor:</b>	Musty
<b>Odor Threshold:</b>	0.4 ppm. Odor is inadequate warning of excessive exposure.
<b>pH:</b>	N/A
<b>Boiling Point (1 atm):</b>	Decomposes prior to boiling
<b>Flash Point:*</b>	≥ 150°C (302°F)
<b>Freezing Point:</b>	Forms crystals below 10°C (50°F)
<b>Melting Point:</b>	N/A
<b>Auto-Ignition Temp.:</b>	N/A
<b>Decomposition Temp.:</b>	N/A
<b>Evaporation Rate:</b>	N/A
<b>Flammability:</b>	N/A
<b>LFL/UFL:</b>	N/A
<b>Vapor Pressure:</b>	< 0.00001 mmHg at 25°C (77 °F)
<b>Relative Vapor Density (air = 1):</b>	8.5
<b>Specific Gravity (water = 1):</b>	1.24 at 20°C (68°F)
<b>Solubility:</b>	Insoluble, Reacts with water, Evolution of CO <sub>2</sub>
<b>Partition Coefficient:</b>	N/A
<b>Dynamic Viscosity:</b>	150 – 220 cP at 25°C (77°F)
<b>Explosive Properties:</b>	Not explosive
<b>Oxidizing Properties:</b>	N/A
<b>Molecular Weight:</b>	N/A

NOTE: Physical data should not be construed as a specification.

\*Third Party Verified

## 10. STABILITY AND REACTIVITY

**Reactivity:** Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

**Chemical Stability:** Stable under recommended storage conditions. See Storage, Section 7.

**Possible Hazardous Reactions:** Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Polymerization can be catalyzed by: strong bases and water.

**Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

**Incompatible Materials:** Avoid contact with: acids, alcohols, amines, water, ammonia, bases, metal compounds, moist air and strong oxidizers. Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat. Avoid contact with metals such as: aluminum, zinc, brass, tin, copper and galvanized metals. Avoid contact with absorbent materials such as: moist organic absorbents. Avoid unintended contact with polyols. The reaction of polyols and isocyanates generate heat.

**Hazardous Decomposition Products:** Decomposition products depend upon temperature, air supply and the presence of other materials. Gases are released during decomposition.

## 11. TOXICOLOGICAL INFORMATION

**Routes of Exposure:** Inhalation, ingestion, skin or eye contact.

### Acute Toxicity:

**Acute Oral Toxicity:** Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Typical for this family of materials.

LD50, Rat, > 10,000 mg/kg

**Acute Dermal Toxicity:** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Typical for this family of materials.

LD50, Rabbit, > 9,400 mg/kg

**Acute Inhalation Toxicity:** At room temperature, vapors are minimal due to low volatility. However, certain operations may generate vapor or mist concentrations sufficient to cause respiratory irritation and other adverse effects. Such operations include those in which the material is heated, sprayed or otherwise mechanically dispersed such as drumming, venting or pumping. Excessive exposure may cause irritation to upper respiratory tract (nose and throat) and lungs. May cause pulmonary edema (fluid in the lungs.) Effects may be delayed. Decreased lung function has been associated with overexposure to isocyanates.

LC50, Rat, 4 Hour, dust/mist, 0.49 mg/l

For similar material(s): 2,4'-Diphenylmethane diisocyanate (CAS 5873-54-1).

LC50, Rat, 4 Hour, Aerosol, 0.31 mg/l

For similar material(s): 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8).

LC50, Rat, 1 Hour, Aerosol, 2.24 mg/l



## 11. TOXICOLOGICAL INFORMATION (cont.)

### **Skin Corrosion/Irritation:**

Prolonged contact may cause slight skin irritation with local redness.  
May stain skin.

### **Serious Eye Damage/Eye Irritation:**

May cause moderate eye irritation.  
May cause slight temporary corneal injury.

### **Sensitization:**

Skin contact may cause an allergic skin reaction.  
Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.  
May cause allergic respiratory reaction.  
Reexposure to extremely low isocyanate concentrations 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.  
Effects may be delayed.

### **Specific Target Organ Systemic Toxicity (Single Exposure):**

May cause respiratory irritation.  
Route of Exposure: Inhalation  
Target Organs: Respiratory Tract

### **Specific Target Organ Systemic Toxicity (Repeated Exposure):**

Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/polymeric MDI aerosols.

### **Carcinogenicity:**

Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m<sup>3</sup>) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

### **Teratogenicity:**

In laboratory animals, MDI/polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother.

### **Reproductive toxicity:**

No relevant data found.

### **Mutagenicity:**

Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

### **Aspiration Hazard:**

Based on physical properties, not likely to be an aspiration hazard.



## 12. ECOLOGICAL INFORMATION

### **Ecotoxicity:**

#### **Acute Toxicity to Fish:**

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

LC50, Danio rerio (zebra fish), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 203 or Equivalent

#### **Acute Toxicity to Aquatic Invertebrates:**

EC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

#### **Acute Toxicity to Algae/Aquatic Plants:**

NOEC, Desmodesmus subspicatus (green algae), static test, 72 Hour, Growth rate inhibition, 1,640 mg/l, OECD Test Guideline 201 or Equivalent

#### **Toxicity to Bacteria:**

EC50, activated sludge, static test, 3 Hour, Respiration rates., > 100 mg/l

#### **Toxicity to Soil-Dwelling Organisms:**

EC50, Eisenia fetida (earthworms), 14 d, > 1,000 mg/kg

#### **Toxicity to Terrestrial Plants:**

EC50, Avena sativa (oats), Growth inhibition, 1,000 mg/l

EC50, Lactuca sativa (lettuce), Growth inhibition, 1,000 mg/l

#### **Persistence and Degradability:**

**Biodegradability:** In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

**10-day Window:** Not applicable

**Biodegradation:** 0%

**Exposure Time:** 28 days

**Method:** OECD Test Guideline 302C or Equivalent

#### **Bioaccumulative Potential:**

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Reacts with water. In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.

**Bioconcentration Factor (BCF):** 92 Cyprinus carpio (Carp) 28 days

#### **Mobility in Soil:**

In the aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas.



### 13. DISPOSAL CONSIDERATIONS

**Cylinder/Pressure Vessels:** Return to Foam Supplies Inc.

**Disposal Methods:** Do not dump into any sewers, on the ground, or into any body of water. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS Section 3: Composition information. For unused & uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaim, incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information-SDS Section 7, Stability & Reactivity Information-SDS Section 10, Regulatory Information-SDS Section 15.

### 14. TRANSPORT HAZARD CLASS

**DOT Non-Bulk:**  
NOT REGULATED

**DOT Bulk:**

**Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s.  
(Methylene Diphenyl Diisocyanate)

**UN number:** UN 3082

**Transport Hazard Class:** 9

**Packing Group:** III

**Reportable Quantity:** Methylene Diphenyl Diisocyanate (MDI)

**Classification for SEA Transport (IMO-IMDG):** Not regulated.

**Transport in Bulk According to Annex I or II of MARPOL 73/78 and the IBC or IGC Code:**  
Consult IMO Regulations.

**Classification for AIR Transport (IATA/ICAO):** Not regulated.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

### 15. REGULATORY INFORMATION:

**OSHA Hazard Communication Standard:**

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

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312:**

Acute Health Hazard  
Chronic Health Hazard  
Reactivity Hazard



## 15. REGULATORY INFORMATION: (cont.)

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313:

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

Components	CASRN
Diphenylmethane Diisocyanate, isomers and homologues	9016-87-9
4,4' -Methylenediphenyl diisocyanate	101-68-8

### Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103:

Components	CASRN	RQ
4,4' -Methylenediphenyl diisocyanate	101-68-8	5000 lbs RQ

### Pennsylvania Worker and Community Right-To-Know Act:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

### California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

### United States TSCA Inventory (TSCA):

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

## 16. OTHER INFORMATION

### Product Literature:

Additional information on this product may be obtained by calling your sales or customer service contact.

### Product Stewardship:

BMK Corporation and its subsidiaries are committed to stewardship and have a concern for, the health and safety for all individuals who come in contact with its products, as well as the environment. This philosophy is a foundation on which we assess information to appropriately protect individuals and preserve our environment. Success of stewardship rests with each and every individual involved in the cradle to grave life cycle of our products.

BMK Corporation supports and follows Responsible Care Guiding Principles.

This document contains information, data and products that are considered PROPRIETARY. Reproduction, storage, transmission, or redistribution in any form, by any means, electronic or otherwise, is strictly prohibited, without the prior, express, written permission of BMK Corporation.

**Date of Issue/Revision:** September 1, 2017

**The information and recommendations set forth herein are believed to be accurate as of the date hereof. BMK Corporation makes no warranty with respect thereto and disclaims any liability from reliance thereon.**



# SAFETY DATA SHEET

## 1. IDENTIFICATION

**Product Name:**

Foam Kit  
B/POLYOL Component

**Other Means of Identification:**

Resin, B-Side

**Recommended Use:**

Polyurethane Component

**Company Information:**

BMK Corporation  
4135 Galley Court  
Earth City, MO 63045  
888.290.7807  
www.bmkcorporation.com

### EMERGENCY RESPONSE

#### HEALTH & SAFETY

First Aid • Treatment  
Call ProPharma Group Co.  
Dedicated #: 800.391.2138

#### CHEMICAL SPILLS

CALL CHEMTREC  
United States: 800.424.9300  
International: +1.703.527.3887  
www.chemtrec.com  
Reference: CCN 8678

## 2. HAZARDS IDENTIFICATION

**Hazard Classification:**

Eye Irritant – Category 2A  
Skin Irritant – Category 2

**Label Elements:**

Hazard pictograms:



Signal Word: WARNING

**Hazards:**

May cause skin irritation.  
May cause eye irritation.  
May cause respiratory irritation

**Precautionary Statements:**

**Prevention:**

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust/fume/gas/mist/vapor/spray.  
Use only outdoors or in a well-ventilated area.  
In case of inadequate ventilation, use respiratory protection.  
Wash hands thoroughly after handling.  
Wear protective gloves, protective clothing and eye protection.  
Contaminated work clothing must not be allowed out of the workplace.



## 2. HAZARDS IDENTIFICATION (cont.)

### Response:

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory problems, get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

IF INGESTED: Do not induce vomiting unless directed to do so by a medical professional. Get medical advice/attention.

### Storage:

Store in a cool, covered, well-ventilated place away from direct sunlight. Keep container tightly closed and store locked up. Do not expose to moisture. Do not expose to excessive heat. Do not allow to freeze. Ideal storage temperatures are 50°-90°F (10°-32°C). Keep out of reach of children.

### Disposal:

Dispose of contents/containers to an approved waste disposal plant in accordance with local, state, national and international regulations.

### Other Hazards:

No data available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CASRN	Concentration
Polyol Blend	Proprietary	50 – 80%
Catalyst(s)	Proprietary	<2%

## 4. FIRST-AID MEASURES

**General Advice:** Remove contaminated clothing.

**Inhalation:** Keep patient calm, remove to fresh air.

**Skin Contact:** Wash skin thoroughly with soap and water.

**Eyes Contact:** Flush eyes with large amounts of water for at least 15 minutes.

**Ingestion:** Rinse mouth and then drink plenty of water. Do not induce vomiting.

**Notes to Physician:** No specific treatment. Treat supportively and symptomatically.

## 5. FIREFIGHTING MEASURES

**Suitable Extinguishing Media:** Foam, alcohol foam, carbon dioxide, dry chemical, or water fog.

**Specific Hazards:** May emit toxic or irritating fumes if burned. Sealed containers may build pressure if heated. If possible spray containers exposed to fire with water to keep cool.

**Protective Equipment for Firefighters:** Firefighters should wear full protective clothing to guard against exposure to toxic and irritating fumes as well as a self-contained breathing apparatus with full face piece operated in a positive pressure mode.

**Further Information:** Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.



## 6. ACCIDENTAL RELEASE MEASURES

**Personal Protective Equipment:** Use personal protective clothing.

**Environmental Precautions:** Do not empty into drains. Do not discharge into subsoil/soil.

**Containment and Cleanup:** Spills should be contained, solidified, and placed in suitable containers for disposal.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling:** Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Avoid breathing vapor. Use with adequate ventilation. Keep container tightly closed. See Section 8, Exposure Controls/Personal Protection.

Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

**Conditions for Safe Storage:** Store in a dry place. Protect from atmospheric moisture. Do not store product contaminated with water to prevent potential hazardous reaction. See Section 10 for more specific information. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact.

**Storage Stability:**

**Storage Period:** 6 Months

**Storage Temperature:** 15 - 38°C (59 - 100°F)

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	Type	Value
Polyol Blend	TWA	None established
Catalyst(s)	TWA	None established

**Exposure Controls:** Ventilation required due to A/ISO component. See Section 8, pages 5-6.

**Personal Protective Equipment:**

**Eye/Face Protection:** Use chemical goggles.

**Skin Protection:** Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: butyl rubber, polyethylene, chlorinated polyethylene and ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: viton, neoprene, polyvinyl chloride ("PVC" or "vinyl") and nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory Protection:** Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure air-supplying respirator (air line or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: organic vapor cartridge with a particulate pre-filter.



## 9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Liquid
Color:	Amber
Odor:	N/A
Odor Threshold:	N/A
pH:	N/A
Boiling Point (1 atm):	Decomposes prior to boiling
Flash Point:*	>60°C (140°F)
Freezing Point:	N/A
Melting Point:	N/A
Auto-Ignition Temp.:	>316°C (600°F)
Decomposition Temp.:	>250°C (482°F)
Evaporation Rate:	Slower than ether
Flammability:	N/A
LFL/UFL:	N/A
Relative Vapor Density (air = 1):	N/A
Specific Gravity (water = 1):	1.08
Solubility:	N/A
Partition Coefficient:	N/A
Dynamic Viscosity:	350 - 2500 cP at 25°C (77 °F)
Explosive Properties:	Not explosive
Oxidizing Properties:	N/A
Molecular Weight:	N/A

NOTE: Physical data should not be construed as a specification.

\*Third Party Verified

## 10. STABILITY AND REACTIVITY

**Reactivity:** Polyols and polyol blends react with isocyanates.

**Chemical Stability:** Stable under recommended storage conditions. See Storage, Section 7.

**Possible Hazardous Reactions:** N/A

**Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

**Incompatible Materials:** Polyols and polyol blends react with isocyanates.

**Hazardous Decomposition Products:** CO, CO<sub>2</sub>, NO<sub>x</sub>

## 11. TOXICOLOGICAL INFORMATION

**Routes of Exposure:** Inhalation, ingestion, skin or eye contact.

**Acute Toxicity:** May cause skin/eye irritation.

**Chronic Toxicity:** May cause skin/eye irritation.

**Toxicological Characteristics:** May cause skin irritation.

**Chronic Effects:** May cause skin irritation; avoid contact with eyes.



## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Not a marine pollutant.

**Global Warming Potential:** Zero

**Ozone Depletion Potential:** Zero

**Volatile Organic Compounds:** Exempt

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

**Bioaccumulative Potential:** Does not bioaccumulate.

**Mobility in Soil:** Adsorption to solid soil phase is not expected.

## 13. DISPOSAL CONSIDERATIONS

**Cylinder/Pressure Vessels:** Return to Foam Supplies Inc.

**Disposal Methods:** Do not dump into any sewers, on the ground, or into any body of water. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS Section 3: Composition information. For unused & uncontaminated product, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device. For additional information, refer to: Handling & Storage Information-SDS Section 7, Stability & Reactivity Information-SDS Section 10, Regulatory Information-SDS Section 15.

## 14. TRANSPORT INFORMATION

**DOT:** Not Regulated for transport

**UN #:** Not Regulated

**UN Shipping Name:** Not Regulated

**Transport Hazard Class:** Not Regulated

**Packing Group:** Not Applicable or Regulated

**Marine Pollutant:** No

**Special Precautions:** None

## 15. REGULATORY INFORMATION

**Inventory Status:** All components TSCA listed.

**US Regulations:** No ingredients listed. Not Applicable.

**US SARA Act Title 3 Section 313:** No ingredients listed. Not Applicable.





## 16. OTHER INFORMATION

### **Product Literature:**

Additional information on this product may be obtained by calling your sales or customer service contact.

### **Product Stewardship:**

BMK Corporation and its subsidiaries are committed to stewardship and have a concern for, the health and safety for all individuals who come in contact with its products, as well as the environment. This philosophy is a foundation on which we assess information to appropriately protect individuals and preserve our environment. Success of stewardship rests with each and every individual involved in the cradle to grave life cycle of our products.

BMK Corporation supports and follows Responsible Care Guiding Principles.

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