

# SAFETY DATA SHEET



Date Prepared : 12/08/2008  
 SDS No : TC-1630 PART A  
 Date Revised : 01/05/2017  
 Revision No : 3

## TC-1630 PART A

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** TC-1630 PART A  
**GENERAL USE:** Polyurethane resin

#### MANUFACTURER

BJB Enterprises, Inc.  
 14791 Franklin Avenue  
 Tustin, CA 92780  
**Emergency Phone:** (714) 734-8450

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

**CHEMTREC (USA & Canada):** (800) 424-9300  
 or (703) 527-3887 CCN# 2820

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATIONS

##### Health:

Skin Irritation, Category 2  
 Eye Irritation, Category 2A  
 Respiratory Sensitization, Category 1  
 Skin Sensitization, Category 1  
 Germ Cell Mutagenicity, Category 1  
 Carcinogenicity, Category 1  
 Target Organ Toxicity (Repeated exposure), Category 2

##### Environmental:

Chronic Hazards to the Aquatic Environment, Category 3

##### Physical:

Flammable Liquids, Category 4

#### GHS LABEL



Health hazard



Exclamation  
 mark

**SIGNAL WORD:** DANGER

#### HAZARD STATEMENTS

H227: Combustible liquid.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H317: May cause an allergic skin reaction.  
 H340: May cause genetic defects.  
 H350: May cause cancer.  
 H373: May cause damage to organs through prolonged or repeated exposure.  
 H412: Harmful to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

##### Prevention:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P284: [In case of inadequate ventilation] wear respiratory protection.

P264: Wash thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P273: Avoid release to the environment.

#### Response:

P370+P378: In case of fire: Use water spray, carbon dioxide, dry chemical, or foam for extinction.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor/physician.

P308+P313: IF exposed or concerned: Get medical advice/ attention.

#### Storage:

P403: Store in a well-ventilated place.

P405: Store locked up.

#### Disposal:

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Soda Lime Borosilicate Glass	30 - 60	65997-17-3
Polymeric diphenylmethane diisocyanate	10 - 30	9016-87-9
4,4'-Diphenylmethane diisocyanate	7 - 13	101-68-8
2,4'-Diphenylmethane diisocyanate	1 - 5	5873-54-1
Solvent naphtha (petroleum), heavy aromatic	1 - 5	64742-94-5
Solvent naphtha (petroleum), medium aliphatic	1 - 5	64742-88-7
Barium sulfate	1 - 5	7727-43-7
Solvent naphtha (petroleum), light aromatic	0.1 - 1	64742-95-6
Silica, Amorphous	0.1 - 1	7631-86-9
Naphthalene	< 0.012	91-20-3

### 4. FIRST AID MEASURES

**EYES:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if irritation or rash develops. Wash clothing before reuse.

**INGESTION:** If swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Provided the patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get immediate medical attention.

**NOTES TO PHYSICIAN:** Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

## 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Water fog, dry chemical, foam, or carbon dioxide.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons, and HCN.

**EXPLOSION HAZARDS:** Combustible liquid: Keep away from heat, sparks, and open flame. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point.

**FIRE FIGHTING PROCEDURES:** Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.

**FIRE FIGHTING EQUIPMENT:** Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires.

**SENSITIVE TO STATIC DISCHARGE:** This material can accumulate static charges which can cause an incendiary electrical discharge.

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL: Eliminate sources of ignition.** Evacuate the area. Clean-up should only be performed by trained personnel. People dealing with a major spill should wear full protective clothing including appropriate respiratory protection. Prevent product spill from entering sewers or waterways. Neutralize small spills with a decontaminant.

**LARGE SPILL:** Contain and absorb large spills onto an inert, non-flammable adsorbent carrier (such as earth or sand). Do not use combustible materials such as saw dust. Use only spark resistant and explosion proof recovery devices. Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spill area clean with a liquid decontaminant. Remove and properly dispose of residues. Notify applicable government authorities if release is reportable. (See CERCLA in Section 15).

### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Do not discharge into drains or rivers.

**GENERAL PROCEDURES:** Refer to section 8 of SDS for personal protection details.

**RELEASE NOTES:** Composition and extent of any spill should be evaluated against local regulations and reported to the proper agencies, if necessary.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Keep away from sources of ignition. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors.

**HANDLING:** Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

**STORAGE:** Store in a dry and well-ventilated place, away from excessive heat in the original or similar container. Avoid sources of ignition and incompatible materials. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials. Avoid unnecessary contact.

**STORAGE TEMPERATURE:** 65-80°F (18-27°C)

**SHELF LIFE:** 3 months from date of shipment under manufacturers recommended storage conditions.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)			
Chemical Name	EXPOSURE LIMITS		
	Type	ppm	mg/m <sup>3</sup>
	OSHA PEL	TWA	NE
		STEL	NE

Soda Lime Borosilicate Glass	ACGIH TLV	TWA	NE	NE
		STEL	NE	NE
	Supplier OEL	TWA	NE	NE
		STEL	NE	NE
Polymeric diphenylmethane diisocyanate	OSHA PEL	TWA	NE	NE
		STEL	NE	NE
	ACGIH TLV	TWA	NE	NE
		STEL	NE	NE
	Supplier OEL	TWA	0.005 <sup>[1]</sup>	0.05 <sup>[1]</sup>
		STEL	NE	NE
4,4'-Diphenylmethane diisocyanate	OSHA PEL	TWA	0.02	0.2
		STEL	NE	NE
	ACGIH TLV	TWA	0.005	0.05
		STEL	NE	NE
	Supplier OEL	TWA	0.005 <sup>[1]</sup>	0.05 <sup>[1]</sup>
		STEL	NE	NE
2,4'-Diphenylmethane diisocyanate	OSHA PEL	TWA	NE	NE
		STEL	NE	NE
	ACGIH TLV	TWA	NE	NE
		STEL	NE	NE
	Supplier OEL	TWA	NE	NE
		STEL	NE	NE
Solvent naphtha (petroleum), heavy aromatic	OSHA PEL	TWA	NE	NE
		STEL	NE	NE
	ACGIH TLV	TWA	NE	NE
		STEL	NE	NE
	Supplier OEL	TWA	17	100
		STEL	NE	NE
Solvent naphtha (petroleum), medium aliphatic	OSHA PEL	TWA	NE	NE
		STEL	NE	NE
	ACGIH TLV	TWA	NE	NE
		STEL	NE	NE
	Supplier OEL	TWA	NE	NE
		STEL	NE	NE
	OSHA PEL	TWA	NE <sup>[2]</sup>	15T,5R <sup>[2]</sup>
		STEL	NE	NE

Barium sulfate	ACGIH TLV	TWA	NE	10
		STEL	NE	NE
	Supplier OEL	TWA	NE <sup>[3]</sup>	10T,5R <sup>[3]</sup>
		STEL	NE	NE
Solvent naphtha (petroleum), light aromatic	OSHA PEL	TWA	NE	NE
		STEL	NE	NE
	ACGIH TLV	TWA	NE	NE
		STEL	NE	NE
	Supplier OEL	TWA	NE	NE
		STEL	NE	NE
Silica, Amorphous	OSHA PEL	TWA	20 mppcf <sup>[4]</sup>	80 %SiO <sub>2</sub> <sup>[4]</sup>
		STEL	NE	NE
	ACGIH TLV	TWA	NE	10 Total Dust
		STEL	NE	NE
	Supplier OEL	TWA	NE <sup>[1]</sup>	6 <sup>[1]</sup>
		STEL	NE	NE
Naphthalene	OSHA PEL	TWA	10	50
		STEL	NE	NE
	ACGIH TLV	TWA	10	52
		STEL	15	79
	Supplier OEL	TWA	10 <sup>[1]</sup>	50 <sup>[1]</sup>
		STEL	15	75
<b>Footnotes:</b> 1. NIOSH REL 2. T = Total, R = Respirable 3. NIOSH REL, T = Total, R = Respirable 4. Mineral Dusts				

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

#### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Safety goggles or glasses are recommended. Plastic face shields should be used for complete face protection to protect against possible splashing or spraying of material. ANSI Z87.1 or approved equivalent.

**SKIN:** Chemical-resistant gloves and chemical goggles, face-shield, and synthetic apron or coveralls should be used to prevent contact with eyes, skin, or clothing. Wear nitrile or neoprene gloves. Chemical resistant gloves lined with polyethylene offer maximum protection.

**RESPIRATORY:** Exhaust ventilation recommended. An organic vapor cartridge or fresh air supplied respirator (NIOSH approved) may be necessary for certain applications. Consider the type of application, environmental concentrations, and other materials being used concurrently when determining respirator use and selection. Observe OSHA regulations for respirator use (29 CFR 1910.134).

**PROTECTIVE CLOTHING:** Protective clothing should be selected and used in accordance with 'Guidelines for the Selection of Chemical Protective Clothing' published by ACGIH.

**WORK HYGIENIC PRACTICES:** Contaminated clothing should be changed and washed before reuse. Eating, drinking and smoking in immediate work area should be prohibited. Wash hands before eating.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Training is important. Follow all label precautions.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Aromatic hydrocarbon

**COLOR:** Black

**pH:** Not Applicable

**PERCENT VOLATILE:** 3.81

**FLASH POINT AND METHOD:** 73.3°C (164°F) Pensky-Martens CC

**VAPOR PRESSURE:** Not Established

**VAPOR DENSITY:** Not Established

**BOILING POINT:** Not Established

**SOLUBILITY IN WATER:** Reacts slowly with water

**SPECIFIC GRAVITY:** 1.73 (water=1) at 25°C (77°F)

**VISCOSITY #1:** 900 Centipoise at 25°C (77°F)

**(VOC):** < 66 g/l Calculated. Theoretical VOC minus water and exempt solvents.

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** Hazardous reactions will not occur under normal transport or storage conditions.

**STABILITY:** This product is stable under normal ambient conditions of temperature and pressure.

**CONDITIONS TO AVOID:** High temperatures, moisture, and freezing conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Reaction with water produces carbon dioxide. 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. MDI 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 carbon dioxide gas.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons, and HCN.

**INCOMPATIBLE MATERIALS:** Water, amines, bases, acids, and strong oxidizers.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

Chemical Name	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>	INHALATION LC <sub>50</sub>
Soda Lime Borosilicate Glass	Not Established	Not Established	Not Established
Polymeric diphenylmethane diisocyanate	> 10000 mg/kg	> 9400 mg/kg	310 mg/m <sup>3</sup> (4 h)
4,4'-Diphenylmethane diisocyanate	> 10000 mg/kg	> 9400 mg/kg	0.49 mg/l (4 h)
2,4'-Diphenylmethane diisocyanate	Not Established	> 9400 mg/kg	0.49 mg/l (4 h)
Solvent naphtha (petroleum), heavy aromatic	Not Established	> 2000 mg/kg	Not Established
Solvent naphtha (petroleum), medium aliphatic	Not Established	Not Established	Not Established
Barium sulfate	Not Established	Not Established	Not Established
Solvent naphtha (petroleum), light aromatic	Not Established	Not Established	Not Established
Silica, Amorphous	Not Established	Not Established	Not Established
Naphthalene	490 mg/kg	> 20 g/kg	Not Established

**SKIN CORROSION/IRRITATION:** Causes skin irritation.

**SERIOUS EYE DAMAGE/IRRITATION:** Causes serious eye irritation.

**RESPIRATORY OR SKIN SENSITISATION:** May cause sensitization by inhalation and skin contact.

**GERM CELL MUTAGENICITY:** May cause genetic defects.

#### CARCINOGENICITY

Chemical Name	NTP Status	IARC Status
Polymeric diphenylmethane diisocyanate		3
4,4'-Diphenylmethane diisocyanate		3
Silica, Amorphous		3
Naphthalene	2	2B

**REPRODUCTIVE TOXICITY:** No data available.

**STOT-SINGLE EXPOSURE:** No data available.

**STOT-REPEATED EXPOSURE:** Inhalation - May cause damage to organs through prolonged or repeated exposure. - Respiratory system

**ASPIRATION HAZARD:** No data available.

#### 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** This product may cause risk of hazardous effects to the environment.

**ECOTOXICOLOGICAL INFORMATION:** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Avoid release to the environment.

**BIOACCUMULATION/ACCUMULATION:** No data available.

**DISTRIBUTION:** No data available.

**CHEMICAL FATE INFORMATION:** No data available.

#### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protections and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

#### 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION):** Not Regulated

**AIR (ICAO/IATA):** Not Regulated

**VESSEL (IMO/IMDG):** Not Regulated

#### 15. REGULATORY INFORMATION

##### UNITED STATES

##### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

**311/312 HAZARD CATEGORIES:** Acute Health Hazard, Chronic Health Hazard, Fire Hazard

**313 REPORTABLE INGREDIENTS:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

##### EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt. %	CAS	Comments
Polymeric diphenylmethane diisocyanate	10 - 30	9016-87-9	Diisocyanate Compounds (Category Code N120)
4,4'-Diphenylmethane diisocyanate	7 - 13	101-68-8	Diisocyanate Compounds (Category Code N120)
Barium sulfate	1 - 5	7727-43-7	Barium Compounds (N040)

##### CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** For this/these chemicals, release of more than the Reportable Quantity to the environment in a 24-hour

period requires notification to the National Response Center (800-424-8802 or 202-426-2675):

Chemical Name	Wt. %	CERCLA RQ
4,4'-Diphenylmethane diisocyanate	7 - 13	5,000 lbs.
Naphthalene	< 0.012	100 lbs.

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA REGULATORY:** This product does not contain any chemicals subject to TSCA Section 12(b) export notification.

**TSCA STATUS:** This product or its components are listed in or exempt from the TSCA inventory requirements.

#### OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

**29 CFR 1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS:** None of the chemicals in this product are considered highly hazardous by OSHA.

**CALIFORNIA PROPOSITION 65:** This product contains chemical(s) which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Chemical Name	Wt. %	Listed
Naphthalene	< 0.012	Cancer

**OSHA HAZARD COMM. RULE:** The contents of the SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### CANADA

**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):** This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components in this product are listed in or exempted from the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

**GENERAL COMMENTS:** No data available.

### 16. OTHER INFORMATION

**REASON FOR ISSUE:** Revision

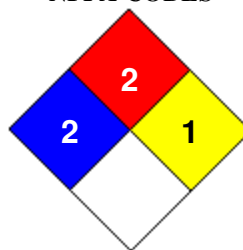
**Date Revised:** 01/05/2017

**REVISION SUMMARY:** This SDS replaces the 10/23/2014 SDS.

#### HMIS RATING

HEALTH	*	2
FLAMMABILITY		2
PHYSICAL HAZARD		1
PERSONAL PROTECTION		X

#### NFPA CODES



**HMIS RATINGS NOTES:** Personal Protection: See Section 8

**MANUFACTURER DISCLAIMER:** This information is furnished without warranty, expressed or implied, except that is accurate to the best knowledge of BJB Enterprises, Inc. The data on this sheet relates only to the specific material designated herein. BJB Enterprises, Inc. assumes no legal responsibility for use or reliance upon this data.



# SAFETY DATA SHEET



Date Prepared : 12/08/2008  
 SDS No : TC-1630 PART B  
 Date Revised : 01/05/2017  
 Revision No : 3

## TC-1630 PART B

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** TC-1630 PART B  
**GENERAL USE:** Polyurethane curative

#### MANUFACTURER

BJB Enterprises, Inc.  
 14791 Franklin Avenue  
 Tustin, CA 92780  
**Emergency Phone:** (714) 734-8450

#### 24 HR. EMERGENCY TELEPHONE NUMBERS

**CHEMTREC (USA & Canada):** (800) 424-9300  
 or (703) 527-3887 CCN# 2820

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATIONS

##### Health:

Skin Irritation, Category 2  
 Eye Irritation, Category 2A  
 Germ Cell Mutagenicity, Category 1  
 Carcinogenicity, Category 1

##### Environmental:

Chronic Hazards to the Aquatic Environment, Category 3

##### Physical:

Flammable Liquids, Category 4

#### GHS LABEL



Health hazard



Exclamation  
 mark

#### SIGNAL WORD: DANGER

#### HAZARD STATEMENTS

H227: Combustible liquid.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H340: May cause genetic defects.  
 H350: May cause cancer.  
 H412: Harmful to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

##### Prevention:

P201: Obtain special instructions before use.  
 P202: Do not handle until all safety precautions have been read and understood.  
 P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P264: Wash thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P273: Avoid release to the environment.

**Response:**

P370+P378: In case of fire: Use water spray, carbon dioxide, dry chemical, or foam for extinction.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

P308+P313: IF exposed or concerned: Get medical advice/ attention.

**Storage:**

P403: Store in a well-ventilated place.

P405: Store locked up.

**Disposal:**

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Soda Lime Borosilicate Glass	30 - 60	65997-17-3
Polyether polyol mixture	10 - 30	Proprietary
Hydroxy terminated poly(oxyalkylated) polyol	5 - 10	102-60-3
Barium sulfate	5 - 10	7727-43-7
Solvent naphtha (petroleum), heavy aromatic	3 - 7	64742-94-5
Solvent naphtha (petroleum), medium aliphatic	1 - 5	64742-88-7
Solvent naphtha (petroleum), light aromatic	0.1 - 1	64742-95-6
Titanium oxide (TiO <sub>2</sub> )	0.1 - 1	13463-67-7
Silica, Amorphous	0.1 - 1	7631-86-9
Naphthalene	< 0.04	91-20-3

### 4. FIRST AID MEASURES

**EYES:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if irritation or rash develops. Wash clothing before reuse.

**INGESTION:** If swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Provided the patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person.

**INHALATION:** Remove to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get immediate medical attention.

**NOTES TO PHYSICIAN:** Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours.

### 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Water spray, carbon dioxide, dry chemical, or foam.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide, carbon dioxide, and nitrogen oxides.

**EXPLOSION HAZARDS:** Combustible liquid: Keep away from heat, sparks, and open flame. Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point.

**FIRE FIGHTING PROCEDURES:** Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.

**FIRE FIGHTING EQUIPMENT:** Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires.

**SENSITIVE TO STATIC DISCHARGE:** This material can accumulate static charges which can cause an incendiary electrical discharge.

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL: Eliminate sources of ignition.** Evacuate the area. Clean-up should only be performed by trained personnel. People dealing with a major spill should wear full protective clothing including appropriate respiratory protection. Prevent product spill from entering sewers or waterways. Neutralize small spills with a decontaminant.

**LARGE SPILL:** Contain and absorb large spills onto an inert, non-flammable adsorbent carrier (such as earth or sand). Do not use combustible materials such as saw dust. Use only spark resistant and explosion proof recovery devices. Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spill area clean with a liquid decontaminant. Remove and properly dispose of residues. Notify applicable government authorities if release is reportable. (See CERCLA in Section 15).

### ENVIRONMENTAL PRECAUTIONS

**WATER SPILL:** Do not discharge into drains or rivers.

**GENERAL PROCEDURES:** Refer to section 8 of SDS for personal protection details.

**RELEASE NOTES:** Composition and extent of any spill should be evaluated against local regulations and reported to the proper agencies, if necessary.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Keep away from sources of ignition. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors.

**HANDLING:** Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

**STORAGE:** Store in a dry and well-ventilated place, away from excessive heat in the original or similar container. Avoid sources of ignition and incompatible materials. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials. Avoid unnecessary contact.

**STORAGE TEMPERATURE:** 65-80°F (18-27°C)

**SHELF LIFE:** 3 months from date of shipment under manufacturers recommended storage conditions.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
Chemical Name	Type	EXPOSURE LIMITS		
		ppm	mg/m <sup>3</sup>	
Soda Lime Borosilicate Glass	OSHA PEL	TWA	NE	NE
		STEL	NE	NE
	ACGIH TLV	TWA	NE	NE
		STEL	NE	NE
	Supplier OEL	TWA	NE	NE
		STEL	NE	NE

Polyether polyol mixture	<b>OSHA PEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>ACGIH TLV</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>Supplier OEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
Hydroxy terminated poly(oxyalkylated) polyol	<b>OSHA PEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>ACGIH TLV</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>Supplier OEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
Barium sulfate	<b>OSHA PEL</b>	<b>TWA</b>	NE <sup>[1]</sup>	15T,5R <sup>[1]</sup>
		<b>STEL</b>	NE	NE
	<b>ACGIH TLV</b>	<b>TWA</b>	NE	10
		<b>STEL</b>	NE	NE
	<b>Supplier OEL</b>	<b>TWA</b>	NE <sup>[2]</sup>	10T,5R <sup>[2]</sup>
		<b>STEL</b>	NE	NE
Solvent naphtha (petroleum), heavy aromatic	<b>OSHA PEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>ACGIH TLV</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>Supplier OEL</b>	<b>TWA</b>	17	100
		<b>STEL</b>	NE	NE
Solvent naphtha (petroleum), medium aliphatic	<b>OSHA PEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>ACGIH TLV</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>Supplier OEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
Solvent naphtha (petroleum), light aromatic	<b>OSHA PEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>ACGIH TLV</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>Supplier OEL</b>	<b>TWA</b>	NE	NE
		<b>STEL</b>	NE	NE
	<b>OSHA PEL</b>	<b>TWA</b>	NE	15 Total Dust

Titanium oxide (TiO <sub>2</sub> )	OSHA PEL	STEL	NE	NE
	ACGIH TLV	TWA	NE	10
		STEL	NE	NE
	Supplier OEL	TWA	NE	NE
STEL		NE	NE	
Silica, Amorphous	OSHA PEL	TWA	20 mppcf <sup>[3]</sup>	80 %SiO <sub>2</sub> <sup>[3]</sup>
		STEL	NE	NE
	ACGIH TLV	TWA	NE	10 Total Dust
		STEL	NE	NE
	Supplier OEL	TWA	NE <sup>[4]</sup>	6 <sup>[4]</sup>
		STEL	NE	NE
Naphthalene	OSHA PEL	TWA	10	50
		STEL	NE	NE
	ACGIH TLV	TWA	10	52
		STEL	15	79
	Supplier OEL	TWA	10 <sup>[4]</sup>	50 <sup>[4]</sup>
		STEL	15	75
<b>Footnotes:</b> 1. T = Total, R = Respirable 2. NIOSH REL, T = Total, R = Respirable 3. Mineral Dusts 4. NIOSH REL				

**ENGINEERING CONTROLS:** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

#### PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Safety goggles or glasses are recommended. Plastic face shields should be used for complete face protection to protect against possible splashing or spraying of material. ANSI Z87.1 or approved equivalent.

**SKIN:** Chemical-resistant gloves and chemical goggles, face-shield, and synthetic apron or coveralls should be used to prevent contact with eyes, skin, or clothing. Wear nitrile or neoprene gloves. Chemical resistant gloves lined with polyethylene offer maximum protection.

**RESPIRATORY:** Exhaust ventilation recommended. An organic vapor cartridge or fresh air supplied respirator (NIOSH approved) may be necessary for certain applications. Consider the type of application, environmental concentrations, and other materials being used concurrently when determining respirator use and selection. Observe OSHA regulations for respirator use (29 CFR 1910.134).

**PROTECTIVE CLOTHING:** Protective clothing should be selected and used in accordance with 'Guidelines for the Selection of Chemical Protective Clothing' published by ACGIH.

**WORK HYGIENIC PRACTICES:** Contaminated clothing should be changed and washed before reuse. Eating, drinking and smoking in immediate work area should be prohibited. Wash hands before eating.

**OTHER USE PRECAUTIONS:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Training is important. Follow all label precautions.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**ODOR:** Aromatic hydrocarbon

**COLOR:** White

**pH:** Not Established

**PERCENT VOLATILE:** 8.51

**FLASH POINT AND METHOD:** 63.3°C (146°F) Pinsky-Martens CC

**VAPOR PRESSURE:** Not Established

**VAPOR DENSITY:** Not Established

**BOILING POINT:** Not Established

**SOLUBILITY IN WATER:** Slightly soluble

**SPECIFIC GRAVITY:** 1.6 (water=1) at 25°C (77°F)

**VISCOSITY #1:** 1300 Centipoise at 25°C (77°F)

**(VOC):** < 136.2 g/l Calculated. Theoretical VOC minus water and exempt solvents.

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** Hazardous reactions will not occur under normal transport or storage conditions.

**STABILITY:** This product is stable under normal ambient conditions of temperature and pressure.

**CONDITIONS TO AVOID:** High temperatures, moisture, and ignition sources.

**POSSIBILITY OF HAZARDOUS REACTIONS:** No data available.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, carbon dioxide, and nitrogen oxides.

**INCOMPATIBLE MATERIALS:** Isocyanates, strong bases, strong acids, and strong oxidizing agents.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

Chemical Name	ORAL LD <sub>50</sub>	DERMAL LD <sub>50</sub>	INHALATION LC <sub>50</sub>
Soda Lime Borosilicate Glass	Not Established	Not Established	Not Established
Polyether polyol mixture	Not Established	Not Established	Not Established
Hydroxy terminated poly(oxyalkylated) polyol	3280 mg/kg	> 2000 mg/kg	Not Established
Barium sulfate	Not Established	Not Established	Not Established
Solvent naphtha (petroleum), heavy aromatic	Not Established	> 2000 mg/kg	Not Established
Solvent naphtha (petroleum), medium aliphatic	Not Established	Not Established	Not Established
Solvent naphtha (petroleum), light aromatic	Not Established	Not Established	Not Established
Titanium oxide (TiO <sub>2</sub> )	> 10000 mg/kg	> 10000 mg/kg	> 6.82 mg/l
Silica, Amorphous	Not Established	Not Established	Not Established
Naphthalene	490 mg/kg	> 20 g/kg	Not Established

**SKIN CORROSION/IRRITATION:** Causes skin irritation.

**SERIOUS EYE DAMAGE/IRRITATION:** Causes serious eye irritation.

**RESPIRATORY OR SKIN SENSITISATION:** No data available.

**GERM CELL MUTAGENICITY:** May cause genetic defects.

### CARCINOGENICITY

Chemical Name	NTP Status	IARC Status
Titanium oxide (TiO <sub>2</sub> )		2B
Silica, Amorphous		3
Naphthalene	2	2B

**REPRODUCTIVE TOXICITY:** No data available.

**STOT-SINGLE EXPOSURE:** No data available.

**STOT-REPEATED EXPOSURE:** No data available.

**ASPIRATION HAZARD:** No data available.

## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** This product may cause risk of hazardous effects to the environment.

**ECOTOXICOLOGICAL INFORMATION:** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Avoid release to the environment.

**BIOACCUMULATION/ACCUMULATION:** No data available.

**DISTRIBUTION:** No data available.

**CHEMICAL FATE INFORMATION:** No data available.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protections and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION):** Not Regulated

**AIR (ICAO/IATA):** Not Regulated

**VESSEL (IMO/IMDG):** Not Regulated

## 15. REGULATORY INFORMATION

### UNITED STATES

#### SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

**311/312 HAZARD CATEGORIES:** Acute Health Hazard, Chronic Health Hazard, Fire Hazard

**313 REPORTABLE INGREDIENTS:** This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

#### EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt. %	CAS	Comments
Barium sulfate	5 - 10	7727-43-7	Barium Compounds (N040)

#### CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT)

**CERCLA REGULATORY:** For this/these chemicals, release of more than the Reportable Quantity to the environment in a 24-hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675):

Chemical Name	Wt. %	CERCLA RQ
Naphthalene	< 0.04	100 lbs.

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

**TSCA REGULATORY:** This product does not contain any chemicals subject to TSCA Section 12(b) export notification.

**TSCA STATUS:** This product or its components are listed in or exempt from the TSCA inventory requirements.

#### OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

**29 CFR 1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS:** None of the chemicals in this product are considered highly hazardous by OSHA.

**CALIFORNIA PROPOSITION 65:** This product contains chemical(s) which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

Chemical Name	Wt. %	Listed
Naphthalene	< 0.04	Cancer

**OSHA HAZARD COMM. RULE:** The contents of the SDS comply with the OSHA Hazard Communication Standard 29 CFR 1910.1200.

#### CANADA

**WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):** This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

**DOMESTIC SUBSTANCE LIST (INVENTORY):** All components in this product are listed in or exempted from the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL).

**GENERAL COMMENTS:** No data available.

#### 16. OTHER INFORMATION

**REASON FOR ISSUE:** Revision

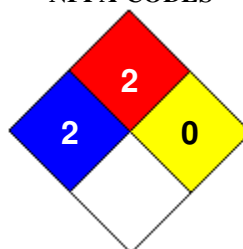
**Date Revised:** 01/05/2017

**REVISION SUMMARY:** This SDS replaces the 10/23/2014 SDS.

#### HMIS RATING

HEALTH	*	2
FLAMMABILITY		2
PHYSICAL HAZARD		0
PERSONAL PROTECTION	X	

#### NFPA CODES



**HMIS RATINGS NOTES:** Personal Protection: See Section 8

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