

SAFETY DATA SHEET



Date Issued : 12/8/2008
 MSDS No : TC-1630 PART A
 Date-Revised : 10/23/2014
 Revision No : 2

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

Customer Service Number: (714) 734-8450

Fax: (714) 734-8929

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation): (800) 424-9300
 or (703) 527-3887 CCN# 2820

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS**Health:**

Acute Toxicity (Inhalation), Category 4
 Skin Irritation, Category 2
 Eye Irritation, Category 2A
 Respiratory Sensitization, Category 1
 Skin Sensitization, Category 1
 Carcinogenicity, Category 2
 Target Organ Toxicity (Single exposure), Category 3
 Target Organ Toxicity (Repeated exposure), Category 1

Physical:

Flammable Liquids, Category 4

GHS LABEL

Health hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H227: Combustible liquid.
 H332: Harmful if inhaled.
 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.
 H351: Suspected of causing cancer .
 H335: May cause respiratory irritation.
 H372: Causes damage to organs through prolonged or repeated exposure .

PRECAUTIONARY STATEMENT(S)**Prevention:**

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- P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
 P201: Obtain special instructions before use.
 P202: Do not handle until all safety precautions have been read and understood.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P271: Use only outdoors or in a well-ventilated area.
 P285: In case of inadequate ventilation wear respiratory protection.
 P264: Wash ... thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- P370+P378: In case of fire: Use water fog, dry chemical, alcohol-resistant foam, or carbon dioxide for extinction.
 P304+P341: IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
 P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
 P321: Specific treatment (see ... on this label).
 P362: Take off contaminated clothing and wash 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+P233: Store in a well-ventilated place. Keep container tightly closed.
 P235: Keep cool.
 P405: Store locked up.

Disposal:

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

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE AND ODOR: Black liquid with an aromatic hydrocarbon odor.

IMMEDIATE CONCERNS: Harmful by inhalation. Use in well ventilated areas. Irritating to eyes, skin, and respiratory system. May cause sensitization by inhalation and skin contact. This product is a respiratory irritant and potential respiratory sensitizer. Repeated inhalation of vapour or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons. The onset of the respiratory symptoms may be delayed for several hours after exposure.

Reacts slowly with water to produce carbon dioxide which may rupture closed containers. This reaction accelerates at higher temperatures. Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

POTENTIAL HEALTH EFFECTS

EYES: Causes serious eye irritation.

SKIN: Causes skin irritation. May cause an allergic skin reaction.

INGESTION: May be harmful if swallowed.

INHALATION: Harmful if inhaled. Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to the respiratory system.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing eye, skin, and respiratory conditions may be aggravated by exposure.

ROUTES OF ENTRY: Eye and skin contact, inhalation of vapors, or accidental ingestion.

TARGET ORGANS: Contains material that may cause damage to the following organs: upper respiratory tract and central nervous system (CNS).

SENSITIZATION: May cause allergic skin and respiratory reaction.

3. COMPOSITION / INFORMATION ON INGREDIENTS

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Chemical Name	Wt.%	CAS
Filler mixture	40 - 70	Proprietary
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
Naphthalene	< 0.004	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

GENERAL HAZARD: Combustible

EXTINGUISHING MEDIA: Water spray, carbon dioxide, dry chemical, or alcohol-resistant foam.

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

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necessary.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Combustible liquid. 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)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Filler mixture	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Polymeric diphenylmethane diisocyanate	TWA	NE	NE	NE	NE	0.005 ^[1]	0.05 ^[1]
	STEL	NE	NE	NE	NE	NE	NE
4,4'-Diphenylmethane diisocyanate	TWA	0.02	0.2	0.005	0.05	0.005 ^[1]	0.05 ^[1]
	STEL	NE	NE	NE	NE	NE	NE
2,4'-Diphenylmethane diisocyanate	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Solvent naphtha (petroleum), heavy aromatic	TWA	NE	NE	NE	NE	17	100
	STEL	NE	NE	NE	NE	NE	NE
Solvent naphtha (petroleum), medium aliphatic	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Naphthalene	TWA	10	50	10	52	10 ^[1]	50 ^[1]
	STEL	NE	NE	15	79	15	75

OSHA TABLE COMMENTS:
1. 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

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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: 3.71

FLASHPOINT AND METHOD: 73°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: 900 Centipoise at 25°C (77°F)

VOC (Volatile Organic Compound): < 64.200 g/l Calculated. Theoretical VOC minus water and exempt solvents.

10. STABILITY AND REACTIVITY

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

POLYMERIZATION: Product may foam when exposed to heat and moisture.

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

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous reactions will not occur under normal transport or storage conditions.

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

INCOMPATIBLE MATERIALS: Water, alcohols, amines, bases, and acids.

11. TOXICOLOGICAL INFORMATION**TOXICITY TO ANIMALS**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Filler mixture	Not Established	Not Established	Not Established
Polymeric diphenylmethane diisocyanate	> 10000 mg/kg	> 9400 mg/kg	310 mg/m ³ (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
Naphthalene	490 mg/kg	> 20 g/kg	Not Established

CHRONIC EFFECTS: Contains material that can cause target organ damage. Once sensitized, a severe allergic reaction may occur when

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subsequently exposed to very low levels.

CARCINOGENICITY

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

IARC: This product contains substances that are classified as possible carcinogens to humans.

IRRITATION: Causes eye and skin irritation.

SENSITIZATION: May cause sensitization by inhalation and skin contact.

TARGET ORGANS: Contains material which causes damage to the following organs: upper respiratory tract and central nervous system (CNS).

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data available.

ECOTOXICOLOGICAL INFORMATION: No specific ecological data are available for this product. Refer to Section 6 for information regarding accidental release and Section 15 for regulatory reporting information.

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) LAND: 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 N1 20)
4,4'-Diphenylmethane diisocyanate	7 - 13	101-68-8	Diisocyanate Compounds (Category Code N1 20)

CERCLA (COMPREHENSIVE 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

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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	< 0.004	100 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This product contains chemical(s) subject to TSCA Section 12(b) export notification:
None

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

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR1910.119---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	< 0.004	Cancer

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

CANADA**WHMIS HAZARD SYMBOL AND CLASSIFICATION**

Combustible
Liquid



D1A - Very
Toxic



D2A - Very
Toxic



D2B - Toxic

WHMIS CLASSIFICATION

Class B3: Combustible liquid

Class D1A: Poisonous and infectious material (Very toxic).

Class D2A: Poisonous and infectious material (Very toxic).

Class D2B: Poisonous and infectious material (Toxic).

WHMIS HEALTH EFFECTS CRITERIA

D1A - Acute lethality

D2A - Respiratory tract sensitization

D2B - Skin irritation

D2B - Skin Sensitization

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

WHMIS CLASS: The D1A classification applies for this material in aerosol or mist form.

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).

16. OTHER INFORMATION

REASON FOR ISSUE: Revision

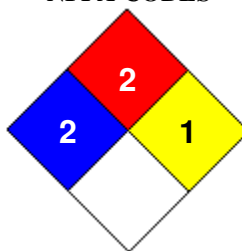
REVISION SUMMARY: This MSDS replaces the 4/17/2012 MSDS.

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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.

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Date Issued : 12/8/2008
MSDS No : TC-1630 PART B
Date-Revised : 10/23/2014
Revision No : 2

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
Customer Service Number: (714) 734-8450
Fax: (714) 734-8929

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (US Transportation): (800) 424-9300
 or (703) 527-3887 CCN# 2820

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Target Organ Toxicity (Repeated exposure), Category 1

Physical:

Flammable Liquids, Category 4

GHS LABEL



Health hazard

SIGNAL WORD: DANGER

HAZARD STATEMENTS

H227: Combustible liquid.
 H372: Causes damage to organs through prolonged or repeated exposure .

PRECAUTIONARY STATEMENT(S)

Prevention:

P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
 P260: Do not breathe dust/fume/gas/mist/vapours/spray.
 P264: Wash ... thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P370+P378: In case of fire: Use water fog, dry chemical, alcohol-resistant foam, or carbon dioxide for extinction.
 P314: Get medical advice/attention if you feel unwell.

Storage:

P403+P235: Store in a well-ventilated place. Keep cool.

Disposal:

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

TC-1630 PART B**EMERGENCY OVERVIEW**

PHYSICAL APPEARANCE AND ODOR: White liquid with an aromatic hydrocarbon odor.

IMMEDIATE CONCERNS: Combustible. Keep away from heat and sources of ignition. Avoid eye and skin contact. Avoid breathing vapors. May cause eye and skin irritation. Use in well ventilated areas.

POTENTIAL HEALTH EFFECTS

EYES: May cause eye irritation.

SKIN: May cause skin irritation.

INGESTION: May be harmful if swallowed.

INHALATION: May be harmful if inhaled. May cause respiratory tract irritation.

MEDICAL CONDITIONS AGGRAVATED: None Known

ROUTES OF ENTRY: Eye and skin contact, inhalation of vapors, or accidental ingestion.

TARGET ORGANS: Contains material that may cause damage to the following organs: upper respiratory tract and central nervous system (CNS).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS
Filler mixture	40 - 70	Proprietary
Polyether polyol mixture	7 - 13	Proprietary
Hydroxy terminated poly(oxalkylated) polyol	5 - 10	102-60-3
Solvent naphtha (petroleum), heavy aromatic	5 - 10	64742-94-5
Solvent naphtha (petroleum), medium aliphatic	1 - 5	64742-88-7
Titanium oxide (TiO ₂)	0.1 - 1	13463-67-7
Naphthalene	< 0.008	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

GENERAL HAZARD: Combustible

EXTINGUISHING MEDIA: Water spray, carbon dioxide, dry chemical, or alcohol-resistant foam.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and carbon dioxide.

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.

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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: Combustible liquid. 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

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EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SupplierOEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Filler mixture	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Polyether polyol mixture	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Hydroxy terminated poly(oxyalkylated) polyol	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Solvent naphtha (petroleum), heavy aromatic	TWA	NE	NE	NE	NE	17	100
	STEL	NE	NE	NE	NE	NE	NE
Solvent naphtha (petroleum), medium aliphatic	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Titanium oxide (TiO ₂)	TWA	NE	15 Total Dust	NE	10	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Naphthalene	TWA	10	50	10	52	10 ^[1]	50 ^[1]
	STEL	NE	NE	15	79	15	75
OSHA TABLE COMMENTS:							
1. 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

TC-1630 PART B**pH:** Not Established**PERCENT VOLATILE:** 8.62**FLASHPOINT AND METHOD:** 63°C (146°F) Pensky-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:** 1300 Centipoise at 25°C (77°F)**VOC (Volatile Organic Compound):** < 138.000 g/l Calculated. Theoretical VOC minus water and exempt solvents.**10. STABILITY AND REACTIVITY****STABILITY:** This product is stable under normal ambient conditions of temperature and pressure.**POLYMERIZATION:** Product will not undergo polymerization.**CONDITIONS TO AVOID:** High temperatures, moisture, and ignition sources.**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous reactions will not occur under normal transport or storage conditions.**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and carbon dioxide.**INCOMPATIBLE MATERIALS:** Isocyanates, strong acids, and strong oxidizers.**11. TOXICOLOGICAL INFORMATION****TOXICITY TO ANIMALS**

Chemical Name	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Filler mixture	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
Solvent naphtha (petroleum), heavy aromatic	Not Established	> 2000 mg/kg	Not Established
Solvent naphtha (petroleum), medium aliphatic	Not Established	Not Established	Not Established
Titanium oxide (TiO ₂)	> 10000 mg/kg	> 10000 mg/kg	> 6.82 mg/l
Naphthalene	490 mg/kg	> 20 g/kg	Not Established

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status
Titanium oxide (TiO ₂)		2B
Naphthalene	2	2B

IARC: This product contains substances that are classified as possible carcinogens to humans.**TARGET ORGANS:** Contains material which causes damage to the following organs: upper respiratory tract and central nervous system (CNS).**12. ECOLOGICAL INFORMATION****ENVIRONMENTAL DATA:** No data available.**ECOTOXICOLOGICAL INFORMATION:** No specific ecological data are available for this product. Refer to Section 6 for information regarding accidental release and Section 15 for regulatory reporting information.

TC-1630 PART B**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) LAND:** 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:
None

CERCLA (COMPREHENSIVE 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	< 0.008	100 lbs.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This product contains chemical(s) subject to TSCA Section 12(b) export notification:
None

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	< 0.008	Cancer

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

CANADA**WHMIS HAZARD SYMBOL AND CLASSIFICATION**

TC-1630 PART B



Combustible
Liquid



D2A - Very
Toxic

WHMIS CLASSIFICATION

Class B3: Combustible liquid

Class D2A: Poisonous and infectious material (Very toxic).

WHMIS HEALTH EFFECTS CRITERIA

D2A - Carcinogenicity

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This product has been classified according to the hazard criteria of the CPR and the MSDS 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).

16. OTHER INFORMATION

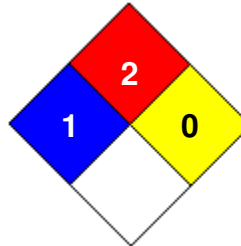
REASON FOR ISSUE: Revision

REVISION SUMMARY: This MSDS replaces the 4/17/2012 MSDS.

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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