

# MATERIAL SAFETY DATA SHEET



Date Issued: 04/16/2009

MSDS No: SKINFLEX III PART A castable &amp; brushable

## SKINFLEX III PART A castable & brushable

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** SKINFLEX III PART A castable & brushable**GENERAL USE:** Polyurethane resin**CHEMICAL FAMILY:** Aromatic diisocyanate terminated polyoxypropylene glycol mixture**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

### 2. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW****PHYSICAL APPEARANCE AND ODOR:** Pale yellow viscous liquid with a slight odor.**IMMEDIATE CONCERNS:** May cause eye and skin irritation. Use in well ventilated areas. Avoid breathing vapors. Avoid contact with strong oxidizers and strong acids, as sudden reaction may result in fire and toxic fumes. Reacts slowly with water to produce carbon dioxide which may rupture containers. This reaction accelerates at higher temperatures.**POTENTIAL HEALTH EFFECTS****EYES:** Liquid and vapors are irritating to eyes. May cause severe injury which may not be reversible.**SKIN:** May cause irritation and possible allergic sensitivity. Skin inflammation is characterized by itching, scaling, or reddening.**INGESTION:** May be harmful if swallowed.**INHALATION:** May be harmful if inhaled. Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to the respiratory system. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons.**MEDICAL CONDITIONS AGGRAVATED:** Asthma and other respiratory disorders.**ROUTES OF ENTRY:** Eye and skin contact, inhalation of vapors, or accidental ingestion.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
4,4'-Diphenylmethane diisocyanate	5 - 10	101-68-8
Modified MDI	5 - 10	Proprietary
Toluene-2,4-diisocyanate	< 0.1	584-84-9
Toluene-2,6-diisocyanate	< 0.1	91-08-7

### 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. Consult a physician.

**SKIN:** Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

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

**INHALATION:** Remove patient from exposure, keep warm and at rest. Obtain immediate medical attention. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered by qualified personnel. Apply artificial respiration if breathing has ceased or shows signs of failing.

**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

**FLASHPOINT AND METHOD:** > 204°C (400°F) Pensky-Martens CC

**GENERAL HAZARD:** Product is neither combustible nor flammable, however, under extreme heat product may undergo decomposition releasing toxic vapors.

**EXTINGUISHING MEDIA:** Carbon dioxide, dry chemical, water or water spray.

**HAZARDOUS COMBUSTION PRODUCTS:** Hydrogen cyanide, carbon monoxide, carbon dioxide, oxides of nitrogen and isocyanate vapors.

**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.

## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** 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). 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).

**RELEASE NOTES:** US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** 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 cool, dry place, away from excessive heat, in original or similar container. Avoid unnecessary contact. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials.

**SHELF LIFE:** 6 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 <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
4,4'-Diphenylmethane diisocyanate	TWA	NE	NE	0.005	0.051	0.005 <sup>[1]</sup>	0.05 <sup>[1]</sup>
	STEL	NE	NE	NE	NE	NE	NE
Modified MDI	TWA	NE	NE	NE	NE	NE	NE
	STEL	NE	NE	NE	NE	NE	NE
Toluene-2,4-diisocyanate	TWA	NE	NE	0.005	NE	NE	NE
	STEL	NE	NE	0.02	NE	NE	NE
Toluene-2,6-diisocyanate	TWA	NE	NE	0.005	NE	NE	NE
	STEL	NE	NE	0.02	NE	NE	NE

**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:** Viscous liquid

**ODOR:** Slight

**COLOR:** Pale yellow

**pH:** Not Established

**PERCENT VOLATILE:** 0.2

**VAPOR PRESSURE:** < 0.01 mmHg

**VAPOR DENSITY:** Not Established

**BOILING POINT:** > 200°C (392°F)

**FLASHPOINT AND METHOD:** > 204°C (400°F) Pensky-Martens CC

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

**SPECIFIC GRAVITY:** 1.060 (water=1) at 25°C (77°F)

**VISCOSITY:** 3150 Centipoise at 25°C (77°F)

**VOC (Volatile Organic Compound):** 2.100 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.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen cyanide, carbon monoxide, carbon dioxide, oxides of nitrogen and isocyanate vapors.

**INCOMPATIBLE MATERIALS:** Water, alcohols, amines, strong bases, metal compounds and surfactants may react with evolution of heat and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### TOXICITY TO ANIMALS

Chemical Name	ORAL LD <sub>50</sub> (rat)	DERMAL LD <sub>50</sub> (rabbit)	INHALATION LC <sub>50</sub> (rat)
4,4'-Diphenylmethane diisocyanate	> 5000 mg/kg	> 5000 mg/kg	Not Established
Modified MDI	Not Established	Not Established	Not Established
Toluene-2,4-diisocyanate	> 5000 mg/kg	> 4000 mg/kg	> 480 mg/kg
Toluene-2,6-diisocyanate	> 5000 mg/kg	> 4000 mg/kg	> 480 mg/kg

### CARCINOGENICITY

Chemical Name	NTP Status	IARC Status
4,4'-Diphenylmethane diisocyanate		3
Toluene-2,4-diisocyanate	2	2B
Toluene-2,6-diisocyanate	2	2B

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

## 12. ECOLOGICAL INFORMATION

### AQUATIC TOXICITY

**96-HOUR LC<sub>50</sub>:** > 1000 mg/l Zebra Fish

48-HOUR EC<sub>50</sub>: > 1000 mg/l Daphnia magna (24 hour)

96-HOUR EC<sub>50</sub>: > 100 mg/l E.Coli

Notes: This information is based only on MDI and its derivatives.

### 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** The generation of waste should be avoided or minimized wherever possible. Disposal should be in accordance with local, state, provincial or national regulations.

**EMPTY CONTAINER:** Containers must be emptied (as defined by RCRA, 40 CFR Section 261.7 or state regulations that may be more stringent) and either passed to an approved recycler or destroyed.

### 14. TRANSPORT INFORMATION

#### DOT (DEPARTMENT OF TRANSPORTATION) LAND

NOTE: Not Regulated

#### AIR (ICAO/IATA)

NOTE: Not Regulated

#### VESSEL (IMO/IMDG)

NOTE: 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

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
4,4'-Diphenylmethane diisocyanate	5 - 10	101-68-8	Diisocyanate Compounds (Category Code N120)
Toluene-2,4-diisocyanate	< 0.1	584-84-9	
Toluene-2,6-diisocyanate	< 0.1	91-08-7	

#### 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
4,4'-Diphenylmethane diisocyanate	5 - 10	5,000 lbs.
Toluene-2,4-diisocyanate	< 0.1	100 lbs.
Toluene-2,6-diisocyanate	< 0.1	100 lbs.

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

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

**CLEAN AIR ACT**

Chemical Name	Wt.%	CAS
Toluene-2,4-diisocyanate	< 0.1	584-84-9
Toluene-2,6-diisocyanate	< 0.1	91-08-7

**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.

**REGULATIONS**

**STATE REGULATIONS:** 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):

**CALIFORNIA PROPOSITION 65**

Chemical Name	Wt.%	Listed
Toluene-2,4-diisocyanate	< 0.1	Cancer
Toluene-2,6-diisocyanate	< 0.1	Cancer

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

**16. OTHER INFORMATION**

**REASON FOR ISSUE:** Revised format

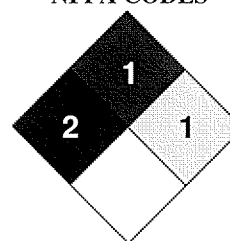
**APPROVED BY:** Michael Rose    **TITLE:** R & D Manager

**PREPARED BY:** Gus Alidad

**HMIS RATING**

<b>HEALTH:</b>	*	<b>2</b>
<b>FLAMMABILITY:</b>		<b>1</b>
<b>PHYSICAL HAZARD:</b>		<b>1</b>
<b>PERSONAL PROTECTION:</b>	<b>X</b>	

**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.

# Material Safety Data Sheet

SKINFLEX III PART B brushable

Date of Preparation: 12/11/2003

Revision: 12/11/2003

## Section 1 - Chemical Product and Company Identification

**Product Name:** SKINFLEX III PART B brushable

**Product Class:** Polyurethane curing agent

**Chemical Type:** Aromatic diamine polyglycol mixture

**Manufacturer:** BJB Enterprises, Inc., 14791 Franklin Avenue, Tustin, CA 92780, Phone (714) 734-8450, Fax (714) 734-8929, (M-Th: 8-4:30, F: 7:30-4), Emergency Phone: Chemtrec (800) 424-9300 or (703) 527-3887

## Section 2 - Composition / Information on Ingredients

Ingredient Name	CASRN	% wt
1. Aromatic amine*	106264-79-3	<1.5
2. Benzyl dimethylamine	103-88-3	<1.5
3. Aryl mercuric carboxylate	27236-65-3	<0.5

\* BJB does not use the urethane curative MOCA in this nor in any other product it manufactures or supplies.

**Trace Impurities:** N/A

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
#1	NE	NE	NE	NE	NE	NE	NE
#2	NE	NE	NE	NE	NE	NE	NE
#3	0.1 mg/m <sup>3</sup>	NE	0.1 mg/m <sup>3</sup>	NE	NE	NE	NE

## Section 3 - Hazards Identification

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Appearance: Amber paste; Odor: Sweet; Avoid skin contact. Avoid breathing vapors. May cause eye and skin irritation. Harmful if inhaled. Use in well-ventilated areas.

**HMIS**

**H** 1

**F** 1

**R** 0

**PPE**†

†Sec. 8

### Potential Health Effects

**Primary Entry Routes:** Eye and skin contact; inhalation of vapors, accidental ingestion.

**Inhalation/Ingestion:** Excessive vapors caused by heat and spray mist can cause respiratory problems.

**Eye:** May cause irritation.

**Skin:** May cause irritation and possible allergic sensitivity with repeated contact.

**Medical Conditions Aggravated by Long-Term Exposure:** Acute asthma.

## Section 4 - First Aid Measures

**Inhalation:** Not likely. Remove to fresh air environment.

**Ingestion:** If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Eye Contact:** Flush eyes with clean, lukewarm water for 15 minutes. Obtain medical attention if irritation develops.

**Skin Contact:** Remove contaminated clothing and wash affected areas well with soap and water. Launder contaminated clothing before use.

**Note to Physicians:** Treat any ill effects symptomatically.

## Section 5 - Fire-Fighting Measures

**Flash Point/Method:** 300°F (149°C) S.E.T.A. – C.C.

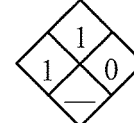
**Extinguishing Media:** Water spray, carbon dioxide, or dry chemical extinguisher.

**Unusual Fire or Explosion Hazards:** Low; can react with strong oxidizing materials such as con sulfuric acid or permanganates.

**Fire-Fighting Instructions:** Cool fire exposed containers with water spray. Remove containers from 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.

NEPA



### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Provide adequate ventilation and wear personal protective equipment. Evacuate personnel as a precaution. Prevent product spill from entering sewers, streams, or drinking water supplies. Collect liquid or soak up with inert filler or an absorbent, such as dry earth, sand, or oil absorbent (sweeping) compound. Collect material into suitable containers for disposal. Wash area with dilute ammonia solution.

**Containment:** For large spills, dike ahead of liquid spill for later neutralization, absorption, clean up, and disposal.

### Section 7 - Handling and Storage

**Handling Precautions:** Avoid contact with eyes, skin and clothing. Avoid breathing vapor over open container.

**Storage Requirements:** Store in a cool, dry place away from excessive heat in original or similar waterproof containers. Avoid unnecessary contact. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials.

**Shelf life:** 6 months from date of shipment under manufacturers recommended storage conditions.

### Section 8 - Exposure Controls / Personal Protection

**Eye Protection Requirements:** Safety goggles or glasses are recommended. Plastic face shield should be worn for complete face protection.

**Skin Protection Requirements:** Impermeable gloves should be worn. Employees should wash their hands and face before eating, drinking, or using tobacco products.

**Ventilation/Respiratory Requirements:** Exhaust ventilation recommended. Exhaust curing ovens to outside air. An organic vapor cartridge or fresh air supplied respirator 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).

**Additional Protective Measures:** Safety showers and eye wash stations should be easily accessible to the work area. Training is important. Follow all label precautions.

### Section 9 - Physical and Chemical Properties

**Physical State:** Paste

**Appearance and Odor:** Amber: sweet

**Vapor Pressure:** <1 mm Hg

**Specific Gravity (H<sub>2</sub>O=1):** 0.92

**pH:** N/A

**Water Solubility:** Very slight

**Boiling Point:** N/A

**% Volatile:** <1%

**V.O.C. (ref EPA meth 24):** 17.5 gm/liter

### Section 10 - Stability and Reactivity

**Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization will not occur.

**Chemical Incompatibilities/Conditions to Avoid:** Isocyanates, oxidizers, and mineral acids.

**Hazardous Decomposition:** N/A

### Section 11- Toxicological Information

No Toxicological Information Available

### Section 12 - Ecological Information

No Ecological Information Available

### Section 13 - Disposal Considerations

**Waste Disposal Method:** Landfill burial or controlled incineration unless prohibited. Dispose of in compliance with federal, state, or local environmental control regulations.

**Section 14 - Transport Information**

**DOT**  
Not regulated

**IATA/ICAO**  
Not regulated

**IMO/IMDG**  
Not regulated

**Section 15 - Regulatory Information****U.S. Federal Regulations:****OSHA:**

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard.

**SARA TITLE III:**

Sections 311/312 Hazard Classification: None

Section 313: 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

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

This product contains the following substances subject to export notification under Section 12 (b) of TSCA:

None

**Section 16 - Other Information**

**Reason for Issue:** Revised section 5

**Prepared By:** M. Rose

**Approval Date:** 12/11/2003

**Supersedes Date:** 01/21/2003

**Disclaimer:** This information is furnished without warranty, expressed or implied, except that it 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 these data.

# Material Safety Data Sheet

SKINFLEX III PART C brushable

Date of Preparation: 12/11/2003

Revision: 12/11/2003

## Section 1 - Chemical Product and Company Identification

**Product Name:** SKINFLEX III PART C brushable

**Product Class:** Plasticizer

**Chemical Type:** Phthalate ester

**Manufacturer:** BJB Enterprises, Inc., 14791 Franklin Avenue, Tustin, CA 92780, Phone (714) 734-8450, Fax (714) 734-8929, (M-Th: 8-4:30, F: 7:30-4), Emergency Phone: Chemtrec (800) 424-9300 or (703) 527-3887

## Section 2 - Composition / Information on Ingredients

Ingredient Name	CASRN	% wt
1. Alky esters, Dicarboxylic acid mixture	Proprietary	<95
2. Amorphous silica	68611-44-9	<10
3. Benzyl dimethylamine	103-88-3	<0.5
4. Organo mercury compounds	Mixture	0.2

Trace Impurities: N/A

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH IDLH
	TWA	STEL	TWA	STEL	TWA	STEL	
#1	NE	NE	NE	NE	NE	NE	NE
#2	15 mg/m <sup>3</sup> (dust)	NE	10 mg/m <sup>3</sup> (chest)	NE	NE	NE	NE
#3	NE	NE	N/E	NE	NE	NE	NE
#4	NE	0.1 mg/m <sup>3</sup> ceiling	0.1 mg/m <sup>3</sup>	NE	NE	NE	NE

## Section 3 - Hazards Identification

### ☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

Appearance: Viscous, light amber liquid; Odor: Slight amine; Avoid skin contact. Avoid breathing vapors. May cause eye and skin irritation. Harmful if inhaled. Use in well-ventilated areas.

HMIS

H 1

F 1

R 0

PPE<sup>†</sup>

<sup>†</sup>Sec. 8

### Potential Health Effects

**Primary Entry Routes:** Eye and skin contact; inhalation of vapors, accidental ingestion.

**Inhalation/Ingestion:** Excessive vapors caused by heat or spray mist can cause respiratory problems.

**Eye:** May cause irritation.

**Skin:** May cause irritation and possible allergic sensitivity with repeated contact.

**Medical Conditions Aggravated by Long-Term Exposure:** Pre-existing respiratory disorders

## Section 4 - First Aid Measures

**Inhalation:** Not likely. Remove to fresh air environment.

**Ingestion:** If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

**Eye Contact:** Flush eyes with clean, lukewarm water for 15 minutes. Obtain medical attention if irritation develops.

**Skin Contact:** Remove contaminated clothing and wash affected areas well with soap and water. Launder contaminated clothing before use.

**Note to Physicians:** Treat any ill effects symptomatically.

## Section 5 - Fire-Fighting Measures

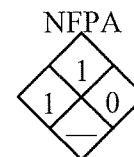
**Flash Point/Method:** 377°F (192°C) C.O.C.

**Extinguishing Media:** Water fog, foam, carbon dioxide, or dry chemical extinguisher.

**Unusual Fire or Explosion Hazards:** Low, when exposed to heat and flames. Can react with oxidizing material.

**Fire-Fighting Instructions:** Cool fire exposed containers with water spray. Remove containers from 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.



### Section 6 - Accidental Release Measures

**Spill /Leak Procedures:** Provide adequate ventilation and wear personal protective equipment. Evacuate personnel as a precaution. Prevent product spill from entering sewers, streams, or drinking water supplies. Collect liquid or soak up with inert filler or an absorbent, such as dry earth, sand, or oil absorbent (sweeping) compound. Collect material into suitable containers for disposal. Wash area with dilute ammonia solution.

**Containment:** For large spills, dike ahead of liquid spill for later neutralization, absorption, clean up, and disposal.

### Section 7 - Handling and Storage

**Handling Precautions:** Avoid contact with eyes, skin and clothing. Avoid breathing vapor over open container.

**Storage Requirements:** Store in a cool, dry place away from excessive heat in original or similar waterproof containers. Avoid unnecessary contact. Protect from freezing. Containers should be tightly sealed to prevent contamination with foreign materials.

**Shelf life:** 6 months from date of shipment under manufacturers recommended storage conditions.

### Section 8 - Exposure Controls / Personal Protection

**Eye Protection Requirements:** Safety goggles or glasses are recommended. Plastic face shield should be worn for complete face protection.

**Skin Protection Requirements:** Impermeable gloves should be worn. Employees should wash their hands and face before eating, drinking, or using tobacco products.

**Ventilation/Respiratory Requirements:** Use in well-ventilated area. An organic vapor cartridge or fresh air supplied respirator 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).

**Additional Protective Measures:** Safety showers and eye wash stations should be easily accessible to the work area. Training is important. Follow all label precautions.

### Section 9 - Physical and Chemical Properties

**Physical State:** Viscous liquid

**Appearance and Odor:** Light amber; Slight amine odor

**Vapor Pressure:** 0.015 mm Hg at 302°F (150°C)

**Specific Gravity (H<sub>2</sub>O=1):** 0.97

**pH:** N/A

**Water Solubility:** Insoluble

**Boiling Point:** 482°F (250°C) @ 10 mm Hg

**Freezing/Melting Point:** N/A

**% Volatile:** Nil

**V.O.C. (ref EPA meth 24):** 7-9 gm/liter

### Section 10 - Stability and Reactivity

**Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Polymerization:** Hazardous polymerization will not occur.

**Chemical Incompatibilities/Conditions to Avoid:** Strong acids and strong oxidizers.

**Hazardous Decomposition:** N/A

### Section 11- Toxicological Information

No Toxicological Information Available

### Section 12 - Ecological Information

No Ecological Information Available

### Section 13 - Disposal Considerations

**Waste Disposal Method:** Dispose of in compliance with federal, state, or local environmental control regulations.

**Section 14 - Transport Information**

**DOT**  
Not regulated

**IATA/ICAO**  
Not regulated

**IMO/IMDG**  
Not regulated

**Section 15 - Regulatory Information****U.S. Federal Regulations:****OSHA:**

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard.

**SARA TITLE III:**

Sections 311/312 Hazard Classification: None

Section 313: 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

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

This product contains the following substances subject to export notification under Section 12 (b) of TSCA:

None

**Section 16 - Other Information**

**Reason for Issue:** Revised Sections 1 & 2

**Prepared By:** M. Rose

**Approval Date:** 12/11/2003

**Supersedes Date:** 04/07/2000

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