

## Section 1 Product and Company Identification

**Product Form:** Mixture  
**Product Name:** CIRR D-BOND™ Crystallized Isocyanates and Resin Remover  
**Product #:** 02-W409589  
**Intended Use of the Product:** Commercial, Industrial and Professional use only. Use as directed

### Manufacturer

Global Specialty Products - USA, Inc.  
 10 Eagle Avenue - Suite 500  
 Mount Holly, New Jersey 08060  
**www.gsp-usa-inc.com**  
**Telephone:** 609-518-7577 **Fax:** 609-518-5277 *Mon - Fri, 8am - 5 pm PST*  
**Email:** support@gsp-usa-inc.com  
**Chemical Emergency Number: ChemTel: 1-800-255-3924**

## Section 2: Hazards Identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29CFR 1910.1200)

### Hazard Pictograms (GHS-US)

**Signal Word:** Warning

**GHS Classification**



	Code	Category	Statement
<b>Flammable Liquids</b>			Non Flammable / Non Combustible
<b>Acute Toxicity (ORAL)</b>	H302	4	Harmful if swallowed
<b>Skin Irritation</b>	H312	4	Harmful in contact with skin
	H315	2	Cause skin irritation
<b>Inhalation:</b>	H332	4	Harmful if Inhaled
<b>Eye irritation</b>	H319	2A	Causes Serious Eye Irritation
<b>Aquatic Acute Toxic</b>	H401	2	Hazardous to the aquatic environment

### Precautionary Statements (GHS-US)

#### General precautionary statements

**P101:** If medical advice is needed, have product container or label at hand;  
**P102:** Keep out of reach of children.  
**P103:** Read label before use.

#### Prevention:

**P260:** Do not breathe vapors, mist, or spray;  
**P262:** Do not get in eyes, on skin, or on clothing;  
**P264:** Wash thoroughly after handling;  
**P270:** Do not eat, drink or smoke when using this product;  
**P271:** Use only outdoors or in a well ventilated area;  
**P272:** Contaminated work clothing must not be allowed out of the workplace;  
**P273:** Avoid release to the environment;  
**P280:** Wear protective clothing, protective gloves, eye protection/face protection.

## Section 2: Hazards Identification (cont'd)

### Precautionary Statements (GHS-US) cont'd

**RESPONSE:IF SWALLOWED: P301+P330+P331** Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor/physician. **P321** - See Section 4 on SDS (First aid measures)

**IF ON SKIN (OR HAIR): P303+P313+P333+P353+P361+P363** Take off immediately all contaminated clothing. Wash skin with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. **IF INHALED: P304+P340** Remove person to fresh air and keep at rest in a position comfortable for breathing. **IF IN EYES: P305+P338 +P351** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately P337 + P313 If eye irritation persists: get medical advice/attention. **STORAGE: P402:** Store in a dry place. **P403 + P235 Store in a well-ventilated place. Keep cool. Disposal: P501** - Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations. **Other Hazards:** Exposure may irritate the respiratory tract (nose, throat, and lungs).

## Section 3: Composition/Information on Ingredients

Mixture:

Name	Product Identifier CAS #	% (w/w)
Dipropylene Glycol Monomethylether	34590-94-8	Proprietary
2-Butoxyethanol	111-76-2	*Proprietary
Ethylene Amines	111-41-1	*Proprietary
Benzyl Alcohol	100-51-6	*Proprietary
Triethanol Amine	102-71-6	*Proprietary

Contains no other hazardous components at 1% or more as listed or defined in 29 CFR 1910, Subpart Z. Contains no components that are reported to be carcinogenic by any reference source including IARC, OSHA, NTP and EPA. \* The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret (29 CFR 1910.1200) This product contains other important & proprietary ingredients (co-solvents, wetting agents, corrosion inhibitor, rinsing agent, etc.) **California Prop 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. **DOES NOT contain raw materials listed on SECTION 112(b) OF HAZARDOUS AIR POLLUTANTS.**

## Section 4: First Aid Measures

### Description of first aid measures

#### General Advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment. Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

**Eye Contact:** In case of contact, rinse immediately for at least 15 minutes with plenty of water. Seek medical attention. Suitable emergency eye wash facility should be immediately available.

**Inhalation:** Remove the affected individual to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Give artificial respiration if necessary. If breathing is difficult give oxygen, immediately get medical assistance.

## Section 4: First Aid Measures (cont'd)

### Description of first aid measures:

#### Skin Contact:

Immediate continued and thorough washing of contaminated skin in flowing water for at least 30 minutes is imperative while removing contaminated clothing.

Prompt medical consultation is essential.

Remove contaminated clothing and shoes.

Properly dispose of leather items such as shoes, belts, and watchbands.

Suitable emergency safety shower facility should be immediately available.

#### Ingestion:

Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

#### Most important symptoms and effects, both acute and delayed:

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

#### Potential acute health effects:

**Eye contact:** Causes eye irritation.

**Inhalation:** Harmful if inhaled.

**Skin contact:** Causes skin irritation, Harmful in contact with skin.

**Ingestion:** Harmful if swallowed. May be irritating to mouth, throat and stomach

#### Over-exposure signs/symptoms

**Eye contact:** May cause irritation with symptoms of reddening, tearing and stinging.

**Inhalation:** May cause adverse respiratory effects including cough, tightness of chest and shortness of breath.

**Skin contact:** No specific data.

**Ingestion:** Symptoms of ingestion may include abdominal pain, nausea, vomiting and diarrhea.

**Potential chronic health effects:** No known significant effects or critical hazards. Notes to physician Protection of first-aiders

Treat symptomatically. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

See toxicological information (Section 11)

## Section 5: Fire Fighting Measures

### Extinguishing media:

**Suitable extinguishing media:** Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), Alcohol-resistant foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical

**Unsuitable extinguishing media:** High volume water jet / **Specific extinguishing methods:**

Use a water spray to cool fully closed containers.

**Specific hazards arising from the chemical / In a fire or if heated,** a pressure increase will occur and the container may burst.

#### Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Non Flammable - Non Combustible / **Explosion Hazard:** Product is not explosive / **Reactivity:** Hazardous reactions will not occur under normal conditions. May react vigorously with strong acids, Oxidizers or Reducing agents. Dangerous fire hazard when exposed to heat or flame.

**Hazardous thermal decomposition:** Decomposition products may include the following materials: carbon dioxide / carbon monoxide / Carbon oxides (CO, CO<sub>2</sub>). Irritating or toxic vapors

**Special protective actions for fire-fighters:** Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters:** Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. **Further information** For safety reasons in case of fire, cans should be stored separately in closed containers.

## Section 6: Accidental Release Measures

### Steps To Take If Material Is Released/Spilled/Leaks

**NOTE: Review Fire And Explosion Hazards and Safety Precautions before proceeding with clean up.**

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Remove source of heat, sparks, flame, impact, friction or electricity.

### Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray. Spilled material may present a slipping hazard.

#### For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE). Emergency Procedures: Evacuate unnecessary personnel.

#### For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection. Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

**Environmental Precautions** Prevent liquid from entering sewers, waterways or low areas. Recover free liquid for reuse or reclamation.

Recover undamaged and minimally contaminated material for reuse or reclamation. Contact competent authorities after a spill.

### Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Keep in suitable, closed containers for disposal.

### Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

## Section 7: Handling and Storage

### Precautions for Safe Handling

**Additional Hazards When Processed:** Provide general ventilation. Where adequate ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls. If this material is handled under mist forming conditions, approved respiratory protection equipment should be used.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Container remains hazardous when empty. Continue to observe all precautions.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container tightly closed. Keep in original container.

**Incompatible Materials:** Strong Oxidizers. Reducing agents. Strong Acid.

**Specific End Use (s):** Commercial use. For professional use only.

## Section 8: Exposure Controls/Personal Protection

### Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

### Exposure Controls

Appropriate Engineering Controls: Provide general ventilation. Where adequate ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

### Personal protection

#### **Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Respiratory protection**

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. When high levels of vapors or aerosols are not controlled by local ventilation, respiratory protection is recommended. Recommended: NIOSH approved air-purifying organic vapor and acid gas respirator. For emergency and other conditions where the exposure limits may be greatly exceeded, use an approved, positive pressure self-contained breathing apparatus or supplied air. Observe OSHA regulations for respirator use (29 CFR 1910.134).

#### **Skin protection**

Chemical-resistant gloves. Recommended: Butyl rubber gloves. Fluorinated rubber Gloves Polyvinyl chloride - PVC Gloves After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations Permeation resistant clothing and foot protection.

#### **Eye/face protection**

chemical splash goggles.

**Medical Surveillance** Not available.

### Components with workplace control parameters

CAS#	Components	Percentage	Value type (form of exposure)	Control parameters/Permissible concentration	Basis
111-76-2	2-Butoxy ethanol	15 - 30%	TWA	20 ppm	ACGIH
			TWA	5 ppm / 24 mg/m <sup>3</sup>	NIOSH REL
			TWA	50 ppm / 240 mg/m <sup>3</sup>	OSHA Z-1
			TWA	25 ppm / 120 mg/m <sup>3</sup>	OSHA P0

## Section 9: Physical and Chemical Properties

Appearance	Clear Amber Liquid
Odor	Mild
Odor Threshold	N/A
pH	9.80 – 10.80 (50% solution in water @ 68°F)
Relative density (Specific Gravity)	0.980 – 0.985 @ 68 °F (20 °C)
Boiling point @ 760 mmHg	385 – 485 °F (180 – 202 °C)
Flash Point (Pensky-Martins Closed Cup, ASTM D93)	202 °F (94.45 °C)
Evaporation rate (nBuAc = 1.00)	N/A
Flammability (solid, gas)	N/A
Upper/lower flammability or explosive limits	N/A
Vapor Pressure (components)	0..02—0.04 @ 25 °C [mm Hg]
Relative density (Specific Gravity)	0.980 – 0.985 @ 68 °F (20 °C)
Solubility(ies) water	Completely Miscible
Partion coefficient: n-octanol/water;	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Viscosity (Brookfield, Spindle #3, 10 rpm, 68°F)	1,000–1,500 cP
Weight/Gallon	8.20 lb / gal
Ideal Working Concentration	Full Strength - Do Not Dilute
Ideal Operating Temp (°F)	Room Temp. - maximum 140 °F
VOC (Based on EPA Method 24)	3.22 %
VOC Content	31.8 g/L (0.264 lb/gal)

## Section 10: Stability and Reactivity

**Reactivity:**

Hazardous reactions will not occur under normal conditions. May react vigorously with strong acids.

**Chemical Stability:**

The product is stable at normal handling and storage conditions.

**Possibility of Hazardous Reactions:**

Hazardous polymerization will not occur.

**Conditions to Avoid:**

Moisture. Exposure to heat, flames, sparks or other ignition. Avoid acidic conditions. Extremely high or low temperatures.

**Incompatible Materials:**

Strong oxidizing agents, acids. Iron, zinc, aluminum, reducing agents.

**Hazardous Decomposition Products:**

Thermal decomposition generates: Carbon oxides (CO, CO<sub>2</sub>). Irritating or toxic vapors.

## Section 11: Toxicological Information

### Information on Toxicological Effects - Components

#### Dipropylene Glycol Monomethylether

CAS # 34590-94-8

#### Acute Toxicity

##### Ingestion

LD50, rat > 5,000 mg/kg

##### Dermal

LD50, rabbit 9,510 mg/kg

##### Inhalation

No deaths occurred at this concentration. LC50, 7 h, Vapor, rat 3.35 mg/l.

##### Eye damage/eye irritation

May cause slight temporary eye irritation. Corneal injury is unlikely.

##### Skin corrosion/irritation

Prolonged exposure not likely to cause significant skin irritation.

##### Sensitization

Skin Did not cause allergic skin reactions when tested in humans.

##### Respiratory

No relevant data found. Repeated Dose Toxicity Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

##### Chronic Toxicity and Carcinogenicity For similar material(s)

Did not cause cancer in laboratory animals.

##### Developmental Toxicity

Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive Toxicity For similar material(s): In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

**Genetic Toxicology** In vitro genetic toxicity studies were negative.

#### 2-Butoxy ethanol

CAS# 111-76-2

##### **Local Effects:**

Hazardous in case of skin contact (irritant).

##### **Skin Irritation:**

Hazardous in case of eye contact (irritant).

##### **Eye Irritation:**

745 mg/kg [Rat]. Assessment: The component/mixture is moderately toxic after single ingestion

##### **Acute Toxicity(LD50):**

2.4 mg/l 4 hours [Rat].

##### **Acute oral toxicity**

490 mg/kg [Rabbit].

##### **Acute dermal toxicity (LD50):**

Harmful by inhalation

##### **Acute inhalation toxicity (LC50):**

##### **Serious eye damage/eye irritation**

**Irritating to eyes.**

##### **Species: Rabbit Result:**

##### **Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

##### **IARC**

##### **OSHA**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

##### **NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

##### **ACGIH**

Confirmed animal carcinogen with unknown relevance to humans

## Section 11: Toxicological Information

### Information on Toxicological Effects - Components

#### Benzyl Alcohol

CAS# 100-51-6

#### Information on the likely routes of exposure

Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

##### Eye contact

Causes eye irritation.

##### Inhalation

Harmful if inhaled.

##### Skin contact

No known significant effects or critical hazards.

##### Ingestion

Harmful if swallowed. May be irritating to mouth, throat and stomach.

#### Symptoms related to the physical, chemical and toxicological characteristics

##### Eye contact

May cause irritation with symptoms of reddening, tearing and stinging.

##### Inhalation

May cause adverse respiratory effects including cough, tightness of chest and shortness of breath.

##### Skin contact

No specific data.

##### Ingestion

Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

#### Potential chronic health effects

##### Short term exposure

##### Potential immediate effects

Not available

##### Long term exposure

##### Potential delayed effects

Not available.

##### General

No known significant effects or critical hazards.

##### Carcinogenicity

No known significant effects or critical hazards.

##### Mutagenicity

No known significant effects or critical hazards.

##### Teratogenicity

No known significant effects or critical hazards.

##### Developmental effects

No known significant effects or critical hazards.

##### Fertility effects

No known significant effects or critical hazards

#### **Product Summary:**

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label.

No data available for the teratogenicity, mutagenicity, or reproductive toxicity of this product.

No data available to designate the product as causing specific target organ toxicity through single or repeated exposure. No data available to designate product as an aspiration hazard.

#### **Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:**

**Ingestion:** Swallowing can result in nausea, vomiting, diarrhea, and abdominal pain.

**Eye contact:** May be an eye irritant. May cause watering of eyes and blurred vision.

**Skin contact:** Contact with skin may result in irritation. Will have a degreasing action on the skin. May cause skin sensitisation in sensitive individuals. Repeated or prolonged skin contact may lead to allergic contact dermatitis.

**Inhalation:** Breathing in vapour can result in headaches, dizziness, drowsiness, and possible nausea. May cause respiratory sensitization in sensitive individuals, producing asthma like symptoms.

**Acute Toxicity: Long Term Effects:** No information available for the product.

**Toxicological Data:** Oral LD50 (rat): 1230 mg/kg / Oral LD50 (mice): 1360 mg/kg / Dermal LD50 (rabbit): 2000 mg/kg / Inhalation LC50 (rat): >4.178 mg/L/4 hour / LD50 (Oral) Rat 1,230 mg/kg / Irritation: Eyes No data available

**Carcinogenicity IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Other Hazards Organ Description** Eyes Irritating to the eyes.

**Ingestion** Harmful if ingested / **Inhalation** May be harmful if inhaled. Irritating to the respiratory tract.

**Skin** Harmful if absorbed through skin. Irritating to skin

## Section 11: Toxicological Information (cont'd)

### Information on Toxicological Effects - Components

#### Triethanol Amine

CAS# 102-71-6

**Acute Toxicity:** Component

**Oral LD50 (rat)**

**Dermal LD50 (rabbit)**

**Inhalation LC50 (rat)** Triethanolamine 6400 mg/kg 22500 mg/kg

**Carcinogenicity:** IARC: Not regulated.

**NTP:** Not regulated.

**OSHA:** Not regulated.

#### Ethylene Amines

CAS# 111-41-1

**Acute Toxicity**

**Component Information:** Aminoethylethanolamine

**LD50 Oral LD50:** 2000 mg/kg ( Rat )

**Dermal LC50:** 3560 µL/kg ( Rabbit )

**Inhalation:** Not listed / **Toxicologically Synergistic:** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure Irritation:**

No information available / **Sensitization** May cause sensitization by skin contact

**Carcinogenicity :** IARC Not listed / NTP Not listed / ACGIH Not listed / OSHA Not listed / Mexico Not listed

**Mutagenic Effects** Not mutagenic in AMES Test

**Reproductive Effects** Possible risk of impaired fertility. May cause harm to the unborn child.

**Developmental Effects** No information available.

**Teratogenicity** Teratogenic effects have occurred in experimental animals.

**STOT** - single exposure None known / **STOT** - repeated exposure None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Endocrine Disruptor** Information No information available / **Other Adverse Effects** The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

## Section 12: Ecological Information

### Information on Ecological Effects - Components

#### **Dipropylene Glycol Monomethylether**

CAS# 34590-94-8

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).

**Fish Acute & Prolonged Toxicity LC50, *Poecilia reticulata* (guppy), static test, 96 h: > 1,000 mg/l**

**Aquatic Invertebrate Acute Toxicity LC50, *Daphnia magna* (Water flea), static test, 48 h, lethality: 1,919 mg/l LC50, Crangon (shrimp), semi-static test, 96 h: > 1,000 mg/l**

**Aquatic Plant Toxicity ErC50, *Pseudokirchneriella subcapitata* (green algae), static test, biomass growth inhibition, 96 h: > 969 mg/l**

**Aquatic Invertebrates Chronic Toxicity Value *Daphnia magna* (Water flea), flow-through test, 22 d, NOEC: > 0.5 mg/l, LOEC: > 0.5 mg/l**

#### **Persistence and Degradability**

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% biodegradation in OECD test(s) for inherent biodegradability).

**OECD Biodegradation Tests:** Biodegradation Exposure Time Method 10 Day Window 75 % 28 d OECD 301F Test pass

**Indirect Photodegradation with OH Radicals Rate Constant Atmospheric Half-life Method** 5.00E-05 cm<sup>3</sup>/s 3.4 - 10.4 h Estimated.

**Biological oxygen demand (BOD):** BOD 5 BOD 10 BOD 20 BOD 28 0 % 0 % 31.6 %

**Chemical Oxygen Demand:** 2.02 mg/mg

**Theoretical Oxygen Demand:** 2.06 mg/mg Bioaccumulative potential Bioaccumulation:

**Bioconcentration potential** is low (BCF < 100 or Log Pow < 3).

**Partition coefficient, n-octanol/water (log Pow):** 1.01 Measured

#### **Mobility in soil**

**Mobility in soil:** Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process., Potential for mobility in soil is very high (Koc between 0 and 50).

**Partition coefficient, soil organic carbon/water (Koc):** 0.28 Estimated.

**Henry's Law Constant (H):** 1.6E-07 atm\*m<sup>3</sup>/mole; 25 °C Estimated.

#### **2-Butoxy ethanol**

CAS# 111-76-2

**Eco toxicity:** (No data available); Persistence and degradability (No data available); Bioaccumulative potential (No data available); Mobility in soil (No data available); Other adverse effects (No data available).

#### **Triethanol Amine**

CAS# 102-71-6

**Toxicity:** LC50 (rainbow trout) >11,800 mg/L/96h; EC50 (water flea) >609.9 mg/L/48h

#### **Ethylene Amines**

CAS# 111-41-1

**Eco toxicity / Freshwater Algae** 210 mg/L EC50 = 72 h

**Freshwater Fish** 728 mg/L LC50 96 h / **Microtox** EC50 = 135 mg/L 17 h

**Water Flea** 22 mg/L EC50 = 48 h / **Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

**Mobility / log Pow** -1.46

#### **Benzyl Alcohol**

CAS# 100-51-6

**Eco toxicity** (aquatic and terrestrial, where available):

**Acute Fish Toxicity (BENZYL ALCOHOL)** LC50 / 96 hours Bluegill - 10 mg/L

**Persistence and degradability:** 92 - 96 % - Readily biodegradable.

**Bio accumulative potential:** No data available

**Other adverse effects:** Potential to become an environmental hazard is mishandled or through improper disposal.

## Section 13: Disposal Considerations

**Sewage Disposal Recommendations:** Do not empty into drains; dispose of this material and its container in a safe way.

**Waste Disposal Recommendations:** The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

**Waste characterizations and compliance with applicable laws are solely the responsibility of the waste generator**

**Additional Information:** Container remains hazardous when empty. Continue to observe all precautions. If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24).

## Section 14: Transport Information

Proper Shipping Name:	CIRR D BOND™ Crystallized Isocyanates & Resin Remover
DOT Identification Number:	Class 70
NMFC Number:	4858003
Land DOT Hazard Class:	Non Regulated  (No ODCs, NON-FLAMMABLE, NON COMBUSTIBLE, NON-CORROSIVE, WATER-MISCIBLE)
Hazardous Ingredients:	See Section 3,
In Accordance with IMDG	Not regulated as a dangerous for transport
In Accordance with IATA	Not regulated as a dangerous for transport
In Accordance with TDG	Not regulated as a dangerous for transport

## Section 15: Regulatory Information

Dipropylene Glycol Monomethylether

34590-94-8

**WHMIS Classification: D1B: Toxic Material Causing Immediate and Serious Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards : Acute Health Hazard**

**SARA 302 : This material does not contain any components with a section 302 EHS TPQ.**

**SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. Clean Air Act This product does not contain any hazardous air pollutants (HAP), as defined by the U.S.**

**Clean Air Act Section 112 (40 CFR 61). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F). The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489): 122-99-6 Ethanol, 2-phenoxy- Clean Water Act This product does not contain any Hazardous Substances listed under the U.S.**

## Section 15: Regulatory Information

### Dipropylene Glycol Monomethylether (Cont'd)

34590-94-8

CleanWater Act, Section 311, Table 116.4A. This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3. This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know 122-99-6 Ethanol, 2-phenoxy-

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

### 2-Butoxy ethanol

CAS# 111-76-2

WHMIS Classification: B3: Combustible Liquid

1A: Very Toxic Material Causing Immediate and Serious Toxic Effects

D2B: Toxic Material Causing Other Toxic Effects

### EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Fire Hazard

Immediate (Acute) Health Hazard

SARA 302:

No chemicals in this material are subject to the reporting requirements of

SARA Title III, Section 302.

SARA 313:

The following components are subject to reporting levels established by SARA Title III,

Section 313: >= 90 - <= 100 %

111-76-2 2-Butoxy ethanol

### US State Regulations

Fire Hazard Acute Health Hazard Chronic Health Hazard : The following components are subject to reporting levels established by SARA Title III, Section 313: 2butoxyethanol Massachusetts Right To Know 2-butoxyethanol Pennsylvania Right To Know 2-butoxyethanol Maine Chemicals of High Concern 111-76-2 Product does not contain any listed chemicals Vermont Chemicals of High Concern Product does not contain any listed chemicals Washington Chemicals of High Concern Product does not contain any listed chemicals >= 90 - <= 100 % 111-76-2 111-76-2 The ingredients of this product are reported in the following inventories: TSCA TSCA list : All substances listed as active on the TSCA inventory No substances are subject to a Significant New Use Rule. No substances are subject to TSCA 12(b) export notification requirements.

## Section 15: Regulatory Information

### Triethanol Amine

CAS# 102-71-6

**United States Federal Regulations:**

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312 HAZARD CATEGORIES: None.

313 REPORTABLE COMPONENTS: None.

**CERCLA (Comprehensive Environmental Response and Liability Act)** No components are regulated by CERCLA.

**TSCA (Toxic Substances Control Act):** All components are on TSCA inventory.

### Ethylene Amines

CAS# 111-41-1

**International Inventories**

TSCA: Listed / DSL: Listed / NDSL: Listed / EINECS: 203-867-5 / ELINCS: N/A / NLP: N/A / PICCS: Listed / ENCS: Listed

AICS: Listed / IECSC: Listed / KECL: Listed

**U.S. Federal Regulations**

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazardous Categorization Acute Health Hazard Yes / Chronic Health Hazard Yes

Fire Hazard No / Sudden Release of Pressure Hazard No / Reactive Hazard No

Clean Water Act Not applicable / Clean Air Act Not applicable /

OSHA Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals

**State Right-to-Know**

Massachusetts Listed / New Jersey Listed / Pennsylvania Listed / Illinois / Listed / Rhode Island Listed

**U.S. Department of Transportation**

Reportable Quantity (RQ): N / DOT Marine Pollutant N / DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations** Mexico - Grade No information available

**Canada** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

**WHMIS Hazard Class**

E Corrosive material

D2A Very toxic materials

### Benzyl Alcohol

CAS# 100-51-6

SARA311/312: : Immediate (acute) health hazard

SARA Title III Section 302 Extremely Hazardous Substances: : None

SARA Title III Section 313 Toxic Chemicals : None

US EPA CERCLA Hazardous Substances (40 CFR 302) : None

**State regulations**

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SOS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Ingredient name	CAS #	State Code	Concentration
Benzyl alcohol	100-51-6	MA- S, PA- RTK HS	35 - 50%

Massachusetts Substances: MA - S

Massachusetts Extraordinary Hazardous Substances: MA - Extra HS

New Jersey Hazardous Substances: NJ - HS

Pennsylvania RTK Hazardous Substances: PA - RTK HS

Pennsylvania Special Hazardous Substances: PA - Special HS

**California Prop. 65**

 To the best of our knowledge, **this product does not contain** any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

**U.S. Toxic Substances Control Act:** : Listed on the TSCA Inventory.

## Section 16: Other Information

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.




Rating  
 0 = Non Regulated  
 1 = Low  
 2 = Moderate  
 3 = High  
 4 = Extreme

HMIS RATING	
HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PROTECTION	0



**HMIS (Hazardous Material Information Association)**

**NFPA (National Fire Protection System)**

Recommended monitoring method	None
Exposure controls	
Appropriate engineering controls	Provide general ventilation. Where adequate ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls. If this material is handled under mist forming conditions, approved respiratory protection equipment should be used.
Personal protection equipment	
Eye/face protection	 Wear protective eye glasses for protection against liquid splashes.
Skin protection (Hand protection/ Other)	 The following to be used as necessary: Gloves (Neoprene or Natural rubber).
Respiratory protection	 <b>Insufficient ventilation:</b> Wear respiratory protection. <b>Respirators</b> - A NIOSH/MSHA approved air purifying respirator with a organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Thermal hazards	None
Environmental Exposure Controls	Do not allow to enter drains, sewers or watercourses.

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstance of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with Federal, State or Provincial, and local laws. The following specific information is made for the purpose of complying with numerous Federal, State or Provincial, and local laws and regulations. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.