

\*\*\* MATERIAL SAFETY DATA SHEET\*\*\*

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1. GENERAL INFORMATION

PRODUCT NUMBER: Cryo Bond 837  
TRADE NAME & SYNONYMS: Cryogenic Coating  
CHEMICAL FAMILY: Solvent Coating  
PROPER DOT SHIPPING NAME: Adhesive, containing a flammable liquid, 3  
DOT HAZARD CLASSIFICATION: UN1133

2. COMPOSITION / INFORMATION ON INGREDIENTS

Unlisted ingredients are not "hazardous" per the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200) and / or are not found on the Canadian Workplace Hazardous Materials Information System ingredient disclosure list. See section 8 for any additional exposure limit guidelines.

Chemical Name	CAS #	Percent	OSHA PEL
Aromatic petroleum distillate	64742-95-6	10 – 30	Not established
Toluene	108-88-3	10 – 30	TWA 100 ppm STEL 150 ppm
Trimethyl benzene	25551-13-7	1 – 5	TWA 25 ppm
Xylene	1330-20-7	0.1 – 1	TWA 100 ppm STEL 150 ppm

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Flammable

Moderate to severe eye irritant

Causes skin irritation

Moderate respiratory tract irritant

Harmful if swallowed

HMIS RATING: HEALTH – 2 FLAMMABILITY – 3 REACTIVITY – 0

See section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION for personal protective equipment recommendations.

#### POTENTIAL HEALTH EFFECTS BY ROUTE OF ENTRY

**EYE:** Eye contact may cause moderate to severe eye irritation. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible.

**SKIN:** Can cause moderate skin irritation, defatting and dermatitis. Not likely to cause permanent damage.

**INHALATION:** Can cause moderate respiratory irritation.

Inhalation of high concentrations may result in central nervous system (CNS) effects such as dizziness, weakness, fatigue, nausea, headache and lack of coordination.

**INGESTION:** Ingestion is not an anticipated route of exposure. Harmful if swallowed. Irritating to mouth, throat and stomach.

#### LONG TERM (CHRONIC) HEALTH EFFECTS

**REPRODUCTIVE:** Contains a substance that is a probable reproductive hazard based on human studies.

**TARGET ORGAN(S):** Lungs, Reproductive System, Liver, Central Nervous System, Blood, Kidneys.

**REGULATED CARCINOGEN STATUS:** Unless noted below, this product does not contain regulated levels of NTP, IARC, ACGIH, or OSHA listed carcinogens

Carbon Black

**EXISTING HEALTH CONDITIONS AFFECTED BY EXPOSURE:** Lung disease, Liver disease, Blood disorders (like anemia).

<b>4 FIRST AID MEASURES</b>
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**IF IN EYES:** Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

**IF ON SKIN:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**IF VAPORS INHALED:** Remove to fresh air. Restore breathing if necessary. Call a physician if symptoms persist.

**IF SWALLOWED:** Do not induce vomiting and seek medical attention immediately. Drink 2 glasses of water or milk to dilute. Do not give anything by mouth to an unconscious person. Induce vomiting as a last measure. Induced vomiting may lead to

aspiration of the material into the lungs potentially causing chemical pneumonitis that may be fatal.

#### 5. FIRE FIGHTING MEASURES

FLASH POINT: 27C, 81F TCC

AUTOIGNITION TEMPERATURE: Not established

LOWER EXPLOSIVE LIMIT (% in air): Not established

UPPER EXPLOSIVE LIMIT (% in air): Not established

EXTINGUISHING MEDIA: Use water spray, foam, carbon dioxide, dry chemical.

UNUSUAL FIRE & EXPLOSION HAZARDS: Vapors are heavier than air and can travel to a source of ignition and flash back.

SPECIAL FIRE FIGHTING INSTRUCTIONS: Persons exposed to products of combustion should wear self-contained breathing apparatus and full protective equipment.

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, Carbon monoxide, Nitrogen containing gases.

#### 6. ACCIDENTAL RELEASE MEASURES

SPECIAL PROTECTION: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including, the material spilled, the quantity of the spill, the area in which the spill occurred. Evaporation of volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation.

CLEAN-UP: Dike if necessary, contain spill with inert absorbent and transfer to containers for disposal. Keep spilled product out of sewers, watersheds, or water systems.

Shut off ignition sources, including electrical equipment and flames. Do not allow smoking in the area.

Transport Emergency Phone Number ( Infotrac): 1-800-535-5053

#### 7. HANDLING AND STORAGE

##### HANDLING:

Harmful or irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area.

Keep away from heat, sparks and flame.

Wash thoroughly after handling.

Keep container closed.

Emptied container retains vapor and product residue.

Observe all labeled precautions until container is cleaned.

Drums of this material should be grounded when pouring.

**DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.**

**STORAGE:**

Store in a cool, dry, ventilated location. Keep away from heat, sparks, flame and other sources of ignition. Keep container closed.

<b>8. EXPOSURE CONTROL / PERSONAL PROTECTION</b>
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**EYE PROTECTION:** Wear safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Have an eye wash station available.

**SKIN PROTECTION:** Avoid skin contact by wearing chemically resistant gloves and long sleeved shirt. An apron may be appropriate if splashing can occur. Skin absorption may potentially contribute to the overall exposure to this material. Appropriate measures should be taken to prevent absorption so that the TLV is not invalidated.

**GLOVES:** Nitrile

**RESPIRATORY PROTECTION** Respiratory protection may be required to avoid overexposure when handling this product. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. NIOSH approved air-purifying respirator with organic vapor cartridge. Respirators should be selected by and used following requirements found in OSHA's respirator standard (29 CFR 1910.134).

**VENTILATION:** Use local exhaust ventilation or other engineering controls to minimize exposure.

**EXPOSURE LIMITS:**

Chemical Name	ACGIH Exposure Limits	AIHA WEEL
Aromatic petroleum distillate	Not Established	Not Established
Toluene	TWA 50 ppm Skin Notation	Not Established
Trimethyl benzene	TWA 25 ppm	Not Established
Xylene	TWA 100 ppm STEL 150 ppm	Not Established

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>PHYSICAL STATE:</b>	Liquid
<b>COLOR:</b>	Black
<b>ODOR:</b>	Solvent
<b>ODOR THRESHOLD:</b>	Not established
<b>WEIGHT PER GALLON (lbs.):</b>	9.6
<b>SPECIFIC GRAVITY:</b>	1.15
<b>SOLIDS (% by weight):</b>	72.5
<b>PH:</b>	Not established
<b>BOILING POINT (deg. C):</b>	Not Established
<b>FREEZING / MELTING POINT (deg C):</b>	Not established
<b>VAPOR PRESSURE (mmHg.):</b>	Not Established
<b>VAPOR DENSITY:</b>	Not Established
<b>EVAPORATION RATE:</b>	Not established
<b>OCTANOL / WATER COEFFICIENT:</b>	Not established

#### 10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions  
CHEMICAL INCOMPATIBILITY: Not established  
HAZARDOUS POLYMERIZATION: Will not occur.  
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen containing gases

#### 11. TOXICOLOGICAL INFORMATION

Aromatic petroleum distillate	Oral LD50 Rat = 8400 mg/kg
Toluene	Oral LD50 Rat = 636 mg/kg Inhalation LC50 Rat = 49000 mg/cu m/4H Dermal LD50 Rabbit = 14.1 ml/kg
Trimethyl benzene	Oral LD50 Rat = 8970 mg/kg
Xylene	Oral LD50 Rat = 4300 mg/kg Inhalation LC50 Rat = 5000 ppm/4H Dermal LD50 Rat = 1700 mg/kg

TOXICOLOGY SUMMARY: No additional health information available.

#### 12. ECOLOGICAL INFORMATION

OVERVIEW: No ecological information available.

319 g VOC/liter of material, less water and exempt solvents  
(VOC theoretically determined using EPA Publication 450/3-84-019.)

#### 13. DISPOSAL CONSIDERATIONS

This product meets the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. It is ignitable waste class D001. Disposal via incineration is recommended. Consult your state, local, or provincial authorities for more restrictive requirements.

LAND DISPOSAL RESTRICTIONS: Toluene, Xylene (o-, m-, p- isomers)

#### 14. TRANSPORTATION INFORMATION

Consult Bill of Lading for transportation information.

#### 15. REGULATORY INFORMATION

##### INVENTORY STATUS

U.S. EPA TSCA: This product is in compliance with the Toxic Substances Control Act's inventory requirements.

##### FEDERAL REPORTING

##### EPA SARA Title III Section 313

Unless listed below, this product does not contain toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and

Reauthorization Act of 1986 (SARA) and 40 CFR part 72. EPA has advised that when a percentage range is listed the midpoint may be used to fulfill reporting obligations.

Chemical Name	CAS#	%
Toluene	108-88-3	10 - 30
1,2,4-Trimethyl benzene	95-63-6	1 - 5
Xylene (mixed isomers)	1330-20-7	0.1 - 1

WHMIS STATUS: Unless listed below, this product is not controlled under the Canadian Workplace Hazardous Materials Information System.

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D2A D2B D1B

STATE REPORTING

This MSDS not prepared for distribution in California.

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