



**MSDS:** 0018414  
**Print Date:** 01/24/2008  
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## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** EBECRYL® 8405 radiation curing resins  
**Synonyms:** None  
**Chemical Family:** acrylated oligomer  
**Molecular Formula:** Mixture  
**Molecular Weight:** Mixture

CYTEC INDUSTRIES INC., FIVE GARRET MOUNTAIN PLAZA, WEST PATERSON, NEW JERSEY 07424, USA  
For Product Information call 1-800/652-6013. Outside the USA and Canada call 1-973/357-3193.

EMERGENCY PHONE: For emergency involving spill, leak, fire, exposure or accident call CHEMTREC: 1-800/424-9300. Outside the USA and Canada call 1-703/527-3887.

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### OSHA REGULATED COMPONENTS

Component / CAS No.	% (w/w)	OSHA (PEL):	ACGIH (TLV)	Carcinogen
Acrylated resin	75 - 85	Not established	Not established	-
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hexamethylene diacrylate 13048-33-4	15 - 25	Not established	Not established	-

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

#### APPEARANCE AND ODOR:

Color: clear to hazy, colorless to amber  
Appearance: liquid  
Odor: acrylate

#### STATEMENTS OF HAZARD:

WARNING! CAUSES EYE AND SKIN IRRITATION  
MAY CAUSE ALLERGIC SKIN REACTION

#### POTENTIAL HEALTH EFFECTS

EFFECTS OF EXPOSURE:

The acute oral (rat) LD50 and dermal (rabbit) LD50 values are estimated to be >2000 mg/kg and >2000 mg/kg, respectively. Direct contact with this material may cause moderate eye and skin irritation. Repeated or prolonged dermal contact may cause allergic skin reactions. The toxicological properties of this material have not been fully investigated. Refer to Section 11 for toxicology information on the regulated components of this product.

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## 4. FIRST AID MEASURES

### **Ingestion:**

Material is not expected to be harmful by ingestion. No specific first aid measures are required.

### **Skin Contact:**

Wash immediately with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse.

### **Eye Contact:**

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical advice if there are persistent symptoms.

### **Inhalation:**

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

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## 5. FIRE-FIGHTING MEASURES

### **Suitable Extinguishing Media:**

Use water spray or fog, carbon dioxide or dry chemical.

### **Protective Equipment:**

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

### **Special Hazards:**

Keep containers cool by spraying with water if exposed to fire.

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## 6. ACCIDENTAL RELEASE MEASURES

### **Personal precautions:**

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

### **Methods For Cleaning Up:**

Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

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## 7. HANDLING AND STORAGE

### **HANDLING**

**Precautionary Measures:** Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Keep container closed. Wash thoroughly after handling.

**Special Handling Statements:** Provide good ventilation of working area (local exhaust ventilation if necessary).

**STORAGE**

Store in a cool, dry, well ventilated place and keep container tightly closed. Keep away from heat sources and direct sunlight.

**Storage Temperature:** Store at 4 - 40 °C

**Reason:** Integrity.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Measures:**

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures.

**Respiratory Protection:**

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. A full facepiece respirator also provides eye and face protection. Cutting, grinding or sanding of parts fabricated after curing may create respirable dust particles. Respiratory protection appropriate for this dust may be required. Refer to components listed above for potential hazardous components in the dust.

**Eye Protection:**

Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

**Skin Protection:**

Avoid skin contact. Wear impermeable gloves and suitable protective clothing. Barrier creams may be used in conjunction with the gloves to provide additional skin protection.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	clear to hazy, colorless to amber
<b>Appearance:</b>	liquid
<b>Odor:</b>	acrylate
<b>Boiling Point:</b>	>100 °C
<b>Melting Point:</b>	Not available
<b>Vapor Pressure:</b>	<0.13mm Hg @ 20.00 °C
<b>Specific Gravity/Density:</b>	1.1 - 1.15 g/cm <sup>3</sup>
<b>Vapor Density:</b>	Not available
<b>Percent Volatile (% by wt.):</b>	<0.5 %
<b>pH:</b>	Not available
<b>Saturation In Air (% By Vol.):</b>	Not available
<b>Evaporation Rate:</b>	Not available
<b>Solubility In Water:</b>	Insoluble
<b>Volatile Organic Content:</b>	Not available
<b>Flash Point:</b>	>100 °C    212 °F    Cleveland Open Cup
<b>Flammable Limits (% By Vol):</b>	Not available
<b>Autoignition Temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>Odor Threshold:</b>	Not available

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**10. STABILITY AND REACTIVITY**

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**Stability:** Stable

**Conditions To Avoid:** Extreme heat, sparks, open flame, and oxidizers. Prevent loss of dissolved oxygen. Avoid extreme heat and/or open flame, sparks, and oxidizers. Avoid excessive heat to closed containers. Avoid direct exposure to sunlight. Excessively high temperatures and ignition sources.

**Polymerization:** May occur

**Conditions To Avoid:** Hazardous polymerization can occur when exposed to direct sunlight. Hazardous exothermic polymerization can occur when heated. Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers

**Materials To Avoid:** Radical Initiators  
Sunlight or ultraviolet light.  
Excessive heat  
Avoid contamination with iron, copper, aluminum, brass, bronze, acids, bases, oxidizing, reducing and chelating agents, precipitants for copper and initiators for vinyl polymerization.  
Iron or rust may trigger rapid exothermic polymerization.  
Free radical initiators, bases, amines.  
Hazardous polymerization may occur.  
Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers.

**Hazardous Decomposition Products:** oxides of carbon  
Nitrous oxides (NOx)  
hydrocarbons  
smoke  
soot

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## 11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3. HAZARDS IDENTIFICATION.  
Toxicological information on the regulated components of this product is as follows:

Acrylated resin may cause moderate eye and skin irritation. Delayed removal from the skin, may lead to blistering of the skin, even if no immediate irritation was noted.

Hexamethylene diacrylate, CAS 13048-33-4, has an estimated oral (rat) and dermal (rabbit) LD50 values of >2000 mg/kg and >2000 mg/kg, respectively. This material causes moderate skin and eye irritation. Prolonged and repeated skin contact may cause allergic skin reaction.

California Proposition 65 Warning (applicable in California only) - This product contains (a) chemical(s) known to the State of California to cause birth defects or other reproductive harm.

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## 12. ECOLOGICAL INFORMATION

The ecological properties of this material have not been fully investigated. An assessment has been initiated to determine possible environmental effects.

## 12. ECOLOGICAL INFORMATION

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## 13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA `listed hazardous waste` or has any of the four RCRA `hazardous waste characteristics.` Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA `listed hazardous waste`; information contained in Section 15 of this MSDS is not intended to indicate if the product is a `listed hazardous waste.` RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this MSDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 2 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

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## 14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

### US DOT

Proper Shipping Name: Not applicable/Not regulated  
Hazardous Substances:  
Not applicable

### TRANSPORT CANADA

Proper Shipping Name: Not applicable/Not regulated

### ICAO / IATA

Proper Shipping Name: Not applicable/Not regulated  
Packing Instructions/Maximum Net Quantity Per Package:  
Passenger Aircraft: -  
Cargo Aircraft: -

### IMO

Proper Shipping Name: Not applicable/Not regulated

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## 15. REGULATORY INFORMATION

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### INVENTORY INFORMATION

**United States (USA):** All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

**Canada:** This product contains components not on the Domestic Substances List.

**European Union (EU):** All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

**Australia:** All components of this product have NOT yet been included in the Australian Inventory of Chemical Substances (AICS) or assessed by Worksafe Australia.

**China:** All components of this product are NOT included on the Chinese inventory.

**Japan:** All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

**Korea:** All components of this product are NOT included on the Korean (ECL) inventory.

**Philippines:** All components of this product are NOT included on the Philippine (PICCS) inventory.

### OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

This product does not contain any components regulated under these sections of the EPA

### PRODUCT HAZARD CLASSIFICATION UNDER SECTION 311 OF SARA

- Acute
- Reactivity

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## 16. OTHER INFORMATION

### NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Reactivity: 1 - Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures.

**Reasons For Issue:** New Format

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