

# ENTHONE

## MATERIAL SAFETY DATA SHEET

Health	2
Flammability	1
Reactivity	1
Personal Protection	

### In Case of Emergency

CHEMTREC Number  
(800) 424-9300

## Section 1. Chemical Product and Company Identification

**Product Name** ENTHONE® 50-110RX CAT-L-INK  
**Product Code Number(s)** 135827  
135627  
135628  
135629  
**Material Uses** Specialty chemicals for the electronics and surface finishing industries.  
**Manufacturer** ENTHONE  
350 Frontage Road  
West Haven, CT 06516  
(203) 799-4917  
(203) 799-8179 (fax)  
www.cooksonelectronics.com  
**Supersedes Date** 10/20/00 **Revision No.** 2.01  
**Print Date** 3/11/2004. **Validation Date** 6/25/2003.  
**Prepared by** Anton Mayer - Regulatory Specialist

## Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight
EPOXY RESIN AND POLYMERS	Proprietary	30-45
TITANIUM DIOXIDE	13463-67-7	20-30
DIPROPYLENE GLYCOL MONOMETHYL ETHER	34590-94-8	10-20
DIETHYLENE GLYCOL ETHYL ETHER ACETATE	112-15-2	7-13
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	5-10
QUARTZ	14808-60-7	0.1-0.5

*All ingredients comply with applicable rules or orders under TSCA*

## Section 3. Hazards Identification

**Physical State and Appearance** Liquid. **Odor** Mild. **Color** White.  
**Emergency Overview** DANGER!  
May be fatal if swallowed. May cause burns to mouth, throat and stomach.  
**Routes of Entry** Absorbed through skin. Eye contact. Inhalation. Ingestion.  
**Potential Acute Health Effects**

**Eyes** Hazardous in case of eye contact (irritant).

**Skin** Slightly hazardous in case of skin contact (irritant, permeator). Corrosive to skin on contact. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Inhalation** Slightly hazardous in case of inhalation (lung irritant). Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation.

*Continued on Next Page*

**Ingestion** May be fatal if swallowed. May cause burns to mouth, throat and stomach.

**Medical Conditions Caused or Aggravated by Overexposure** Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Crystalline silica is a component of this product, however, exposure to silica dust is highly unlikely since the silica is part of a viscous, polymeric liquid mixture. Inhalation of crystalline silica has been determined to cause cancer in humans.

## Section 4. First Aid Measures

**Eye Contact** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin Contact** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

**Inhalation** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

**Ingestion** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

## Section 5. Fire Fighting Measures

**Flammability of the Product** Combustible.

**Flash Points** Open cup: 62.77°C (145°F) (Cleveland.).

**Products of Combustion** These products are carbon oxides (CO, CO<sub>2</sub>). Some metallic oxides.

**Fire Fighting Media and Instructions** SMALL FIRE: Use DRY chemical powder.  
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Protective Equipment (Fire)** Wear NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

## Section 6. Accidental Release Measures

**Small Spill and Leak** Absorb with an inert material and put the spilled material in an appropriate waste disposal.

**Large Spill and Leak** Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

## Section 7. Handling and Storage

**Handling** Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. To avoid fire, minimize ignition sources.

**Storage** Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

## Section 8. Exposure Controls, Personal Protection

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Personal Protection

**Eyes** Splash goggles.

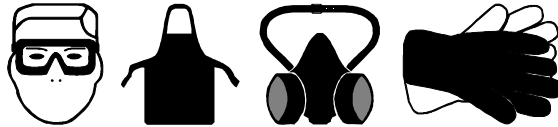
**Body** Synthetic apron.

**Respiratory** Be sure to use a MSHA/NIOSH approved respirator or equivalent. 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.

**Hands** Impervious gloves.

**Feet** Rubber Boots.

Protective Equipment (Pictograms)



**Personal Protection in Case of a Large Spill** Splash goggles. Full suit. Rubber Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Ingredient Name**

DIPROPYLENE GLYCOL METHYL ETHER

**Exposure Limits**

**ACGIH TLV (United States, 2001). Skin**

STEL: 909 mg/m<sup>3</sup> 15 minute(s).  
STEL: 150 ppm 15 minute(s).  
TWA: 606 mg/m<sup>3</sup> 8 hour(s).  
TWA: 100 ppm 8 hour(s).

**NIOSH REL (United States, 2001). Skin**

STEL: 900 mg/m<sup>3</sup> 15 minute(s).  
STEL: 150 ppm 15 minute(s).  
TWA: 600 mg/m<sup>3</sup> 10 hour(s).  
TWA: 100 ppm 10 hour(s).

**OSHA PEL 1989 (United States, 1989). Skin**

STEL: 900 mg/m<sup>3</sup> 15 minute(s).  
STEL: 150 ppm 15 minute(s).  
TWA: 600 mg/m<sup>3</sup> 8 hour(s).  
TWA: 100 ppm 8 hour(s).

TITANIUM DIOXIDE

**ACGIH TLV (United States, 2001).**

TWA: 10 mg/m<sup>3</sup> 8 hour(s).

**OSHA PEL 1989 (United States, 1989).**

TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Total dust

**AIHA WEEL (United States, 2001).**

TWA: 100 ppm 8 hour(s).

PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE  
QUARTZ

**ACGIH TLV (United States, 2001).**

TWA: 0.05 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction

**NIOSH REL (United States, 2001). Notes: See Appendix A - NIOSH Potential Occupational Carcinogen**

TWA: 0.05 mg/m<sup>3</sup> 10 hour(s).

**OSHA PEL 1989 (United States, 1989).**

TWA: 0.1 mg/m<sup>3</sup> 8 hour(s). Form: Respirable dust

Consult local authorities for acceptable exposure limits.

## Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor Mild.	Color White.
pH	Not applicable.		
Boiling Point	173.89 °C		
Melting/Freezing Point	None Identified.		
Specific Gravity	1.4 (Water = 1)		
VOC	384 (g/l).		
Solubility	Butyl acetate.		

## Section 10. Stability and Reactivity

Stability and Reactivity	Stable under recommended storage and handling conditions (see section 7).
Conditions of Instability	Keep away from heat, sparks and flame.
Incompatible Substances	Reactive with oxidizing agents.
Hazardous Decomposition Products	In a fire: toxic oxides of carbon and nitrogen. Metallic oxides.
Hazardous Polymerization	Will not occur.

## Section 11. Toxicological Information

### Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
DIPROPYLENE GLYCOL MONOMETHYL ETHER	LD50	7500 mg/kg	Oral	Dog
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	LD50	8532 mg/kg	Oral	Rat

**Chronic Effects on Humans** **CARCINOGENIC EFFECTS:** Classified + (Proven.) by NIOSH [QUARTZ]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [QUARTZ].

**MUTAGENIC EFFECTS:** None identified.

**TERATOGENIC EFFECTS:** None identified.

**Special Remarks on Toxicity** Absorption of toxic amounts through the skin is unlikely under ordinary conditions of industrial use.

**Special Remarks on Chronic Effects on Humans** Crystalline silica is a component of this product, however, exposure to silica dust is highly unlikely since the silica is part of a viscous, polymeric liquid mixture. Inhalation of crystalline silica has been determined to cause cancer in humans.

**Special Remarks on Other Toxic Effects on Humans** Systemic toxicity is very unlikely under ordinary conditions of industrial use. The glycol ether in this product does not cause adverse effects on the male and female reproductive systems.

**Any component listed in this section that is not listed in Section 2 is present in the product in concentrations below legal disclosure limits ( 1% for hazardous components and 0.1% for carcinogens )**

## Section 12. Ecological Information

Enthone has not conducted specific studies on the ecotoxicity or environmental fate of this product.

## Section 13. Disposal Considerations

**Waste Information** Waste must be disposed of in accordance with all applicable environmental control regulations.

## Section 14. Transport Information

**DOT Classification** -

**UN number** Not regulated.

**Proper shipping name** -

***This Transport Information applies only to the Product Code Number(s) listed in Section 1. Other container sizes may require different Transport Information. If assistance is required, contact Regulatory Affairs at 203-799-4936.***

## Section 15. Regulatory Information

**U.S. Federal Regulations** SARA 313 toxic chemical notification and release reporting: DIETHYLENE GLYCOL ETHYL ETHER ACETATE

***All ingredients comply with applicable rules or orders under TSCA***

**State Regulations**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: QUARTZ

***Any component listed in this section that is not listed in Section 2 is present in the product in concentrations below legal disclosure limits (1% for hazardous components and 0.1% for carcinogens).***

## Section 16. Other Information

**Definition of Terms**

***Continued on Next Page***

ACGIH	American Conference of Governmental Industrial Hygienists
Ceiling	Maximum exposure limit defined by OSHA
CAS	Chemical Abstract Service
IARC	International Agency for Research on Cancer
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
REL	Recommended Exposure Limit
RTK	Right to Know
SARA	Superfund Amendments and Reauthorization Act
STEL	Short Term Exposure Limit
TLV	ACGIH Threshold Limit Value
TLV-C	ACGIH Threshold Limit Value, Ceiling
TRADE SECRET	Claimed as allowed under 29CFR§1910.1200
TSCA	Toxic Substances Control Act

**Disclaimer**

*This Material Safety Data Sheet may be used to comply with OSHA's Hazard Communication Standard, 29CFR§1910.1200. Enthone furnishes the data contained herein in good faith at customer's request without liability or legal responsibility for same whatsoever, and no warranty or guarantee, express or implied, is made with respect to such data; nor does Enthone grant permission, recommendation, or inducement to infringe any patent whether owned by Enthone or others. The data is offered solely for your information and consideration. Since conditions of use are beyond Enthone's control, user assumes all responsibility and risk.*

