

MATERIAL SAFETY DATA SHEET

MSDS NO. XX0366
ENTHONE 50-600R Brown

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

COMPANY IDENTIFICATION

ENTHONE
P.O. BOX 1900
NEW HAVEN, CT 06508
USA
Phone: 1-203-934-8611
Fax: 1-203-799-8179

EMERGENCY TELEPHONE NUMBERS

Transportation:
Chemtrec, USA, 1-800-424-9300
International: 1-703-527-3887
After Hours Non Transportation
Emergency: 1-800-399-6503

PRODUCT NAME
ENTHONE 50-600R Brown
PRODUCT CODE
XX0366

PRODUCT DESCRIPTION
Resin and filler mixture.

GENERAL USE
Two component 50-Series Cat-L-Ink

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION	PERCENT	CAS#
Polymer of Epoxy Resin & Bisphenol A	25.0- 40.0	25068-38-6
Diethylene Glyc Eth Ether Acet	5.0- 15.0	112-15-2
Dipropyl Glyc Mono Meth Ether	5.0- 15.0	34590-94-8
Prop Gly Mono Methyl Ether Ace	5.0- 15.0	108-65-6
Carbon Black	1.70	1333-86-4
Barium Sulfate	5.0- 10.0	7727-43-7
Hexavalent Chromium	2.422	7440-47-3
Lead	11.707	7439-92-1

DISCLOSURE:

This product is hazardous under the criteria of the USA OSHA Hazard Communication Standard 29 CFR 1910.1200.

Any ingredient claimed as a trade secret will be disclosed in accordance with 29 CFR 1910.1200 (i).

See Section 8 of this MSDS for any noted exposure limits for these compounds.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Warning!

Combustible liquid and vapor.

May cause eye irritation.

Harmful if swallowed.

Chocolate brown, high viscosity liquid. Mild odor.

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SECTION 3. HAZARDS IDENTIFICATION
(CONTINUED)

EYE CONTACT

Moderately irritating with redness, pain or tearing. Prolonged contact may cause burns.

SKIN CONTACT

Slightly irritating. Frequent or prolonged contact may irritate and cause a rash (dermatitis). Repeated exposure may cause allergic skin reactions. Once an allergy develops, even an exposure to a very small amount can trigger an allergic reaction.

INHALATION

Slightly irritating to the eyes, nose, throat and lungs.

INGESTION

Slightly irritating to the mouth, stomach and digestive tract. May cause vomiting.

PRIMARY ROUTE OF EXPOSURE

Skin contact, skin absorption, eye, inhalation, ingestion.

CARCINOGENICITY

IARC - 1 Chromium, 2B Lead, 2B Carbon Black
OSHA - Not Listed
NTP - 1 Chromium

TARGET ORGANS

Ingredients may be toxic to the following organs:
Skin, eyes, lungs, mucous membranes.

SECTION 4. FIRST AID MEASURES

EYE CONTACT

Flush eyes with flowing water for 10 to 15 minutes. Blink eyes frequently. Repeat flushing if burning or pain persists. Get immediate medical attention.

SKIN CONTACT

Rinse skin immediately with plenty of water. Then wash skin immediately with soap and water. Remove contaminated clothing. Do not apply lotions or creams without the advice of a physician or poison center. If problems persist get prompt medical attention.

INHALATION

Remove victim to fresh air. If breathing is difficult get immediate medical attention. If not breathing give artificial respiration and call for emergency medical assistance.

INGESTION

Do NOT induce vomiting. Give small amounts of water. Never give anything by mouth to an unconscious person. Contact a poison center or get immediate medical attention.

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SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT

150.00 F 65.55 C

FLASH METHOD

S.C.C.

EXTINGUISHING METHOD

Use carbon dioxide, foam or dry chemical.

FIRE FIGHTING PROCEDURES

Wear self contained breathing apparatus (pressure-demand MSA/NIOSH or equivalent) and full fire fighting protective gear.

FIRE AND EXPLOSION HAZARDS

Heat in excess of flashpoint, open flame, or storage with incompatible materials as listed in Stability And Reactivity.

HAZARDOUS PRODUCTS/COMBUSTION

Not established.

SECTION 6. ACCIDENTAL RELEASE MEASURES

CLEAN-UP

Remove ignition sources. Provide adequate ventilation and/or personal protective equipment (see Section 8). Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Prevent runoff to storm sewers, ditches and other pathways to soil and waterways.

SECTION 7. HANDLING AND STORAGE

HANDLING

Avoid breathing fumes. Do not splash or spill.

STORAGE

Do not store with incompatible materials. Store containers upright. Keep away from heat and flame.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS

Use local exhaust ventilation.

EYE PROTECTION

Wear safety glasses with side shields or a face shield.

SKIN PROTECTION

Wear chemical resistant rubber gloves and apron.

RESPIRATORY PROTECTION

No respirator is required if ingredient exposure limits are not exceeded. An OSHA approved (29 CFR 1910.134 USA Dept. of Labor), air purifying, half-face respirator with the appropriate cartridge should be used if exposure limits are exceeded.

OTHER PROTECTION

A safety shower and eye wash station should be within reasonable distance of the work area.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
(CONTINUED)

SUBSTANCE DESCRIPTION	EXPOSURE LIMITS/REGULATORY INFORMATION			
	REG. AGCY	PELTL	STEL	CEIL
Polymer of Epoxy Resin & Bisphenol A	OSHA	N/D	N/D	N/D
	ACGIH	N/D	N/D	N/D
Diethylene Glyc Eth Ether Acet	OSHA	N/D	N/D	N/D
	ACGIH	N/D	N/D	N/D
Dipropyl Glyc Mono Meth Ether	OSHA	100.0 ppm	N/D	N/D
	ACGIH	100.0 ppm	150.0 ppm	N/D
Prop Gly Mono Methyl Ether Ace	OSHA	N/D	N/D	N/D
	ACGIH	N/D	N/D	N/D
Carbon Black	OSHA	3.5 mg/m3	N/D	N/D
	ACGIH	3.5 mg/m3	N/D	N/D
Barium Sulfate	OSHA	15.0 mg/m3	N/D	N/D
	ACGIH	10.0 mg/m3	N/D	N/D
Hexavalent Chromium	OSHA	N/D	N/D	N/D
	ACGIH	0.01 mg/m3	N/D	N/D
Lead	OSHA	0.05 mg/m3	N/D	N/D
	ACGIH	0.05 mg/m3	N/D	N/D

LEGEND:

EXPOSURE LIMIT DESCRIPTIONS

CEIL Ceiling Exposure Limit

PELTL PEL/TLV

STEL Short Term Exposure Limit

N/D = Not Determined

UNIT OF MEASURE

PPM Parts Per Million (Liquid)

MG/M3 Milligrams Per Cubic Meter (Solid)

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR

Chocolate brown, high viscosity liquid. Mild odor.

SPECIFIC GRAVITY

1.41

pH FACTOR

N/D

BOILING POINT

N/D F N/D C 320 - 370 deg. F

VOLATILE ORGANIC COMPOUNDS

VOC - % 29.1

VOC - g/L 410

VOC - lbs/Gal 3.43

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBILITIES

Oxidizing agents.

DECOMPOSITION

None

POLYMERIZATION

None.

CONDITIONS TO AVOID

Extreme temperatures.

STABILITY

Stable.

SECTION 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS

Conjunctival irritation and redness. May cause corneal damage.

DERMAL EFFECTS

Slightly irritating. Absorption of toxic amounts through the skin is unlikely under ordinary conditions of industrial use.

INHALATION EFFECTS

The glycol ether in this product does not cause adverse effects on the male or female reproductive system.

INGESTION EFFECTS

Lead poisoning is possible if this product is chronically ingested.

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SECTION 11. TOXICOLOGICAL INFORMATION
(CONTINUED)

ACUTE TOXICITY DATA

Enthone is not aware of any toxicity data on the specific mixture of chemical components contained in this product. Data on the individual chemical components of this mixture is available in the literature or can be obtained by contacting Enthone's Health, Safety and Environmental department at the address and telephone number listed in Section 1.

SECTION 12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Enthone has not conducted specific studies on the ecotoxicity or environmental fate of this product. Commonly available data on certain ingredients indicate that acute or chronic effects could result from uncontrolled releases to soil, ground water, storm waters, or air. Appropriate measures should be taken to prevent uncontrolled releases. Prompt containment and clean-up should be performed if releases do occur (see Section 6).

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable Federal, state and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product. It is recommended that the following priority hierarchy be used when selecting a disposal method: (1) Reuse or reintroduction into the process. (2) Reclamation, regeneration or recycling. (3) Burning for energy recovery, or incineration. (4) Treatment.

SECTION 14. TRANSPORT INFORMATION

DOT/IATA PROPER SHIPPING NAME

Ink Materials

DOT/IATA HAZARD CLASS

Not Regulated

DOT/IATA UN OR NA NUMBER

Not Regulated

DOT/IATA PACKING GROUP

Not Regulated

DOT/IATA LABEL

Not Regulated

DOT/IATA PLACARD

Not Regulated

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SECTION 15. REGULATORY INFORMATION

Component Epoxy Resin is subject to the following Environmental List
311/312 SARA Phy/Hea Haz (40CFR370.40)

Component Bisphenol A is subject to the following Environmental List
311/312 SARA Phy/Hea Haz (40CFR370.40)
313 SARA toxic chem (40CFR372.65)

Component Diethylene Glyc Eth is subject to the following Environmental List
311/312 SARA Phy/Hea Haz (40CFR370.40)
313 SARA toxic chem (40CFR372.65)

Component Dipropyl Glyc Mono M is subject to the following Environmental List
311/312 SARA Phy/Hea Haz (40CFR370.40)

Component Prop Gly Mono Methyl is subject to the following Environmental List
311/312 SARA Phy/Hea Haz (40CFR370.40)
313 SARA toxic chem (40CFR372.65)

Component Carbon Black is subject to the following Environmental List
CA California Prop 65
311/312 SARA Phy/Hea Haz (40CFR370.40)

Component Barium Sulfate is subject to the following Environmental List
311/312 SARA Phy/Hea Haz (40CFR370.40)
313 SARA toxic chem (40CFR372.65)

Component Hexavalent Chromium is subject to the following Environmental List
CA California Prop 65
CERCLA CERCLA Hazardous Substance
311/312 SARA Phy/Hea Haz (40CFR370.40)
313 SARA toxic chem (40CFR372.65)

Component Lead is subject to the following Environmental List
CA California Prop 65
CERCLA CERCLA Hazardous Substance
311/312 SARA Phy/Hea Haz (40CFR370.40)
313 SARA toxic chem (40CFR372.65)

CALIFORNIA PROPOSITION 65

This product contains a chemical(s) known to the State of California to cause cancer and birth defects, or other reproductive harm.

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SECTION 16. OTHER INFORMATION

HAZARDOUS MATERIALS ID. SYSTEM

HMIS		HAZARD RATING			
Health	3	Least	0	Slight	1
Fire	2	Moderate	2	High	3
Reactivity	1	Extreme	4		

WHMIS HAZARD CLASS

B3, D2A

REVISION NO.

006

REVISION DATE

12/07/00

REVISION SECTION / REASON

Section 2 / COMPOSITION: Update composition.

CREATED BY

HSE & R&D IRVINE, CALIFORNIA.

APPROVED BY

HSE - California

LIMITATIONS AND DISCLAIMER:

This MSDS relates only to the specific material identified in Section 2. In compiling this MSDS, Enthone has relied in good faith on information provided to Enthone by suppliers of the components of this material, and, in some cases, provided by independent data resources. Enthone has not independently verified such information, and, in addition, users should be aware that all materials may present unknown hazards. Use of this material in combination with other materials and/or in specific processes may render information set forth in this MSDS inaccurate or otherwise invalid.

NO WARRANTY, EXPRESS OR IMPLIED, IS MADE REGARDING THE INFORMATION FURNISHED ON THIS MSDS.

KEY TO ABBREVIATIONS:

EQ = Equal	LT = Less Than
AP = Approximately	GT = Greater Than
N/D = Not Determined	TR = Trace
ND = No Data Available	> = Greater Than
HSE = Health, Safety and Environmental	< = Less Than