Material Safety Data Sheet

10 July 2003

SECTION 1. CHEMICAL IDENTIFICATION

CHEMICAL NAME: Organic Solvent Solution

TRADE NAME: SU-8 Developer

PRODUCT #: Y020100

SECTION 2. COMPOSITION

1-Methoxy-2-propanol acetate (CAS: 108-65-6), 98-100%

SECTION 3. HAZARD DATA

INFLAMMABILITY: Moderately combustible liquid.

SKIN CONTACT: No significant signs or symptoms indicative of any health hazard are expected to occur as a result of skin contact. Possible systemic toxicity by skin absorption. EYE CONTACT: May cause moderate irritation, including burning sensation, tearing, redness or swelling.

INGESTION: Ingestion may cause gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea.

INHALATION: Prolonged overexposure to either vapor or mist may cause coughing, shortness of breath, dizziness and drunkenness.

MUTAGENICITY: No data available.

CARCINOGENICITY: Not listed in NTP, IARC, or OSHA as a carcinogen.

TARGET ORGANS: Eyes, mucous membranes

SECTION 4. FIRST AID MEASURES

INHALATION: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention.

Prompt action is essential. INGESTION: If large quantity swallowed, give lukewarm water if victim completely conscious/alert. Do not induce vomiting. Risk of damage to lungs exceeds poisoning risk. Obtain emergency medical attention.

SKIN CONTACT: Remove contaminated clothing as needed. Wash thoroughly with soap and water. Fizzle with lukewarm water for 15 minutes. If sticky, use waterless cleaner first. Seek medical attention if discomfort persists.

EYE CONTACT: Immediately flush the eyes with large amounts of clean low-pressure water for at least 15 minutes, occasionally lifting the upper and lower lids. If pain or irritation persists, promptly obtain medical attention.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

SECTION 6. ACCIDENTAL RELEASE PROCEDURES

EVACUATION PROCEDURES & SAFETY: Wear appropriate personal protective gear for the situation. See Personal Protection information in Section 8.

CLeanup & Disposal of Spill: Absorb with an inert absorbent. Sweep up and place in an appropriate closed container (see Section 7)

SECTION 7. STORAGE AND HANDLING PRECAUTIONS

STORAGE: Store in tightly closed, properly vented containers away from heat, sparks, open flame and strong oxidizing agents. Store under nitrogen is recommended to minimize possible formation of highly reactive peroxides.

HANDLING: Keep away from heat, sparks, open flames and strong oxidizing agents.

Avoid breathing vapors. Use with adequate ventilation.

Avoid contact with skin, eyes, and clothing. Have available safety shower and eyewash. Wear recommended personal protective equipment.

Wash with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

RESPIRATORY PROTECTION: No occupational exposure limits have been developed for this material. Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.

VENTILATION: General mechanical ventilation or local exhaust is sufficient under normal conditions. SKIN PROTECTION: Imperious butyl gloves are recommended.

EYE PROTECTION: Chemical splash goggles and/or face shields are recommended.

SECTION 9. PHYSICAL AND CHEMICAL DATA

APPEARANCE: Clear, colorless liquid

ODOR: Aromatic, fruity

BOILING POINT: 140 ºC (284 ºF), @ 760mm Hg

SPECIFIC GRAVITY: 0.96 @ 25 ºC (77 ºF)

VAPOR PRESSURE: 3.8 mm Hg @ 25 ºC (77 ºF)

H2O SOLUBILITY: Appreciable (10% or more) %

100% by wt EVAPORATION RATE: 0.3 (BuAc = 1)

FLASH POINT: 47 ºC (116 ºF)

TCC AUTOIGNITION TEMP: 272 ºC (522 ºF)

EXPLOSION LIMITS: 1.5%

PRODUCT SUMMARY: To the best of our knowledge, all the toxicological properties have not been thoroughly investigated.

ORAL: LD50 (rat): 8532 mg/kg SKIN: LD50 (rabbit) >5000 mg/kg Repeated dose toxicity – On repeated, prolonged exposure may be a nasal irritant. As 1-Methoxy-2-propanol acetate: ORAL: LD50 (rat): 8532 mg/kg SKIN: LD50 (rabbit) >5000 mg/kg Repeated dose toxicity – No known chronic health effects As 2-Methoxy-1-propanol acetate: Repeated dose toxicity – This material has been shown to cause developmental effects in offspring of female rabbits exposed to 0, 145, 225, 350 and 545 ppm by inhalation during pregnancy. 145 ppm was the no observed effect (NOEL) in this study. Reproductive/Development effects – Damages developing fetus.

SECTION 12. ECOLOGICAL DATA

ECOTOXICITY: No data available.

ENVIRONMENTAL FATE: The material may enter soil and may contaminate water.

BIODEGRADATION: Data for a closely related material suggest it will be inherently biodegradable.

SECTION 13. DISPOSAL CONSIDERATIONS

COMPATIBILITY WITH MATERIALS: Comply with applicable local, state or international regulations regarding the proper disposal of this material and/or containers.

SECTION 14. TRANSPORTATION INFORMATION

Hazard Classification: Flammable Liquid

Shipping Name: Flammable Liquid Non-Oxidizing

UN NUMBER: UN 1993

PACKING GROUP III

SECTION 15. REGULATORY INFORMATION

EUROPEAN INFORMATION

EINECS LISTED

EC Nos: 1-Methoxy-2-propyl acetate 203-603-9

Risk & Safety Phrases: R10 Flammable R36 Irritating to eyes S2 Keep out of reach of children S25 Avoid contact with eyes

INDICATIONS OF DANGER: US International

INFORMATIONAL HAZARD LISTINGS: All ingredients appear on the TSCA Inventory of Chemical Substances, EINECS, the Japan Hazardous Chemical Listing and the Canadian DSL.

SARA Title III: This product IS NOT subject to SARA Title III, Section 313 Reporting Requirements. Calif. SCAQMD Rule 443.1 VOC’s: 960 g/l; vapor pressure 3.6 mm Hg @ 25o C

SECTION 16. ADDITIONAL PRECAUTIONS AND COMMENTS

National Fire Protection Association Hazard Ratings – NFPA: 1 Health Hazard Rating 2 Flammability Rating 0 Reactivity Rating

To the best of our knowledge, the above information is believed to be accurate but does not claim to be all-inclusive and is intended to be used only as a guide. The supplier makes no warranty of any kind, expressed or implied, concerning the use of this product and shall not be held liable for any damage resulting...
CHEMICAL NAME: Organic Resin Solution
TRADE NAME: E-1 Resin Modified Epoxy Acrylate
PRODUCT #: 965-5511
Fax: (617) 965-5818

WARNING: This is a hazardous product. Read the material safety data sheet before handling or from contact with the above product. User assumes all risks incident to its use.

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Fax: (617) 965-5818

11 April 1996 CHEMICAL NAME: Organic Solvent Solution TRADE NAME: SU-8 Developer PRODUCT #: Y020100