



**MATERIAL SAFETY DATA SHEET**

AE #123 ETCHING SOLUTION  
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**IMPORTANT:** Read this MSDS before handling and disposing of this product and pass this information on to employees, customers and users of this product.

**PRODUCT DESCRIPTION:** AE #123 ETCHING SOLUTION **PREPARATION DATE:** 3/03/97 - Rev. 4

**SECTION I - GENERAL INFORMATION** 24 HOUR EMERGENCY RESPONSE NUMBER: INFOTRAC 1-800-535-5053

**TRADE NAME:** PANNIER "MASTER MARKER"  
**GENERIC NAME:** Etching Solution  
**CHEMICAL FAMILY:** Mixture  
**CAS NO.:** NOT AVAILABLE (MIXTURE)  
**DOT HAZARDOUS MATERIALS PROPER SHIPPING NAME:** Corrosive Liquid, N.O.S.  
**DOT HAZARD CLASS:** Corrosive Material  
**UN/NA ID NO.:** UN 1760  
**HMIS CODES:** 3H, 0F, 0R

**SECTION II - HAZARDOUS INGREDIENTS**

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS		SEE SEC.VI	VAPOR PRESSURE		WEIGHT PERCENT
		OSHA PEL	ACGIH TLV		MM HG	@ TEMP	
*Hydrochloric Acid 20BE	7647-01-0	5 PPM CEIL	5 PPM CEIL	X	30.0	77°F	28
Bismuth Trichloride 99%	7787-60-2	N/A	N/A	N/A	N/A	N/A	15
*Antimony Trichloride	10025-91-9	.5 MG/M3	.5 MG/M3	X	N/A	N/A	13
*Mercuric Chloride	7487-94-7	.05 MG/M3	.05 MG/M3	X	0.0	68°F	2

\*INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372.

**SECTION III - PHYSICAL DATA**

**BOILING RANGE:** 122 to 212°F  
**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 1.4  
**VAPOR DENSITY:** Heavier than Air  
**EVAPORATION RATE:** Slower than Ether  
**MATERIAL V.O.C.:** 0.00 LB/GL (0 G/L)  
**SOLUBILITY IN WATER:** Partially Soluble  
**APPEARANCE AND ODOR:** Thin Yellowish Liquid, Pungent Odor

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** NONE  
**METHOD USED:** N/A  
**FLAMMABLE LIMITS IN AIR BY VOLUME:** LOWER: N/A UPPER: N/A  
**EXTINGUISHING MEDIA:** None Known

**SPECIAL FIREFIGHTING PROCEDURES:** Water may be used to cool closed containers to prevent explosion when exposed to extreme heat. Full protective equipment may be needed to protect firefighters from hazardous combustion products.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** During emergency conditions, overexposure to decomposition products may cause a health hazard.

**SECTION V - REACTIVITY DATA**

**STABILITY:** Stable  
**CONDITIONS TO AVOID:** Acid reacts with many metals to produce hydrogen gas which is a serious fire and explosive hazard.  
**INCOMPATIBILITY (MATERIALS TO AVOID):** Contact with metals, alkalis, amines and oxidizers may liberate toxic gases.  
**HAZARDOUS DECOMPOSITION OR BYPRODUCTS:** Hydrogen chloride evolution is accelerated by heating. May produce antimony and mercury fumes.  
**HAZARDOUS POLYMERIZATION:** Will not occur.

**PANNIER CORPORATION**  
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### SECTION VI - HEALTH HAZARD DATA

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:** TLV 5 PPM ceiling, value from ACGIH. Marked irritation of nose and throat, dizziness, headache. Can produce severe burns, and lung edema.

**SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:** SKIN: Contact may cause severe burns. EYES: May cause corneal injury.

**SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:** Dermatitis may result from repeated contact. Prolonged contact will cause severe pain and brownish or yellow stains.

**INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:** Can cause severe burning or the mouth followed by vomiting.

**HEALTH HAZARDS (ACUTE AND CHRONIC):** ACUTE: Severe irritation of eyes, nose, throat and skin. High concentrations may cause acute lung damage/edema. CHRONIC: Excessive exposure may cause cumulative long-term organ toxicity other than nervous, respiratory, hematological, or reproductive.

**CARCINOGENICITY:** NTP? No IARC MONOGRAPHS? No OSHA REGULATED? No

\*Antimony and aniline are suspect carcinogens.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Dermatitis and respiratory irritation..

**EMERGENCY AND FIRST AID PROCEDURES:** INHALATION: Remove to fresh air. Restore breathing. Treat symptoms. Consult a physician. EYES: Flush immediately with water for 15 minutes. See a physician. SKIN: Wash with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. INGESTION: Drink water to dilute. DO NOT induce vomiting. Consult a physician or poison control center immediately.

### SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Ventilate area. Avoid breathing vapors. Carefully neutralize with alkali, such as soda ash or lime. Remove by suitable inert absorbing material.

**WASTE DISPOSAL METHOD:** In compliance with local, state and federal regulations. Refer to MSDS caution information before attempting to cleanup.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Keep containers closed when not in use. Avoid inhalation of vapor or mist.

**OTHER PRECAUTIONS:** In accordance with good industrial practice, handle with care and avoid contact. Use only with adequate ventilation. Wash thoroughly after handling. For industrial use only. HMIS personal protective equipment is dependent upon conditions of use.

### SECTION VIII - CONTROL MEASURES

**RESPIRATORY PROTECTION:** When used with adequate ventilation none normally required. However, when required its use must be in compliance with all OSHA health and fit testing requirements, as given in 29CFR 1910.134. Do NOT spray! Will produce toxic vapors.

**VENTILATION:** Sufficient volume and pattern should be provided to keep air contaminant concentrations below current ACGIH TLV limits.

**PROTECTIVE GLOVES:** Protective gloves should be worn if contact is likely. Use rubber or plastic.

**EYE PROTECTION:** Safety eye-wear is recommended and should be available to avoid accidental contact.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** If using large amounts (gallons), use safety glasses, acid resistant gloves and apron.

**WORK/HYGIENIC PRACTICES:** Wash hands before eating, drinking or smoking. Avoid smoking in work area.

### SECTION IX - SPECIAL PRECAUTIONS

NO OTHER DATA AVAILABLE

### SECTION X - REGULATORY INFORMATION

**SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372.**

	CAS NUMBER
Mercuric Chloride	7487-94-7
Antimony Trichloride	10025-91-9
Hydrochloric Acid 20BE	7647-01-0

### DISCLAIMER OF LIABILITY

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