



MATERIAL SAFETY DATA SHEET

I. PRODUCT INFORMATION

Trade Name: SmartPlate Etch 392
Chemical names, common names: Complex Water base Solution
Manufacturer's Name: HURST CHEMICAL COMPANY
Address: 2500 San Fernando Rd, Los Angeles, CA 90065
DOT CLASSIFICATION: (Not regulated)
For Product Information, call : (323) 223-4121
FOR EMERGENCY, CALL CHEMTREC, 24 HOUR: 800 424-9300

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Number	Exposure Limits in Air	
		ACGIH (TWA)	OSHA (PEL)
malonic acid	141-82-2	Not.....	Established
adipic acid	124-04-9	5 mg/M3	NA
2 butoxyethanol	111-76-2	25ppm (skin)	25ppm(skin)

Section IIA - This product contains the following chemicals subject to reporting requirements of SARA 313 and 40 CFR 372.

Listed Ingredients	CAS Number	Weight % Range
2-Butoxyethanol	111-76-2	0.5-2.0
Ethylene glycol	107-21-1	3.0 - 10

III. PHYSICAL PROPERTIES

Vapor density (air = 1): <1
Solubility in water: 100%
Evaporation rate (Bu Ac = 1): <1
Appearance and odor: Clear tan liquid.
Volatile Organic Content (VOC,EPA Method 24): 12 gm/l or 0.1 lb/gal
Specific Gravity: 1.08
Density lb/gal: 9.00
VOC Composite Partial Pressure, mm Hg at 20°C: < 0.1
Boiling Range °F: n/a

IV. FIRE AND EXPLOSION

HAZARD RANKING
HMIS Health Hazard=1
HAZARD Flammability=1
CLASS Reactivity= 0
Other = B
0=Least 4=Extreme
1=Slight
2=Moderate
3 = High
B=Safety glasses, nitrile gloves.

Flash Point °F: > 200
Flammable limits in air, volume%: lower: n/a upper: n/a
Fire extinguishing materials: N water spray N carbon dioxide N foam
N dry chemical Y other

Special firefighting procedures: The product is not flammable. However vapors exposed to heat or open flame may separate and become flammable. Then use Dry chemical or foam to extinguish.
Unusual fire and explosion hazard: : Not known.

V. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE FOR EACH POTENTIAL ROUTE OF EXPOSURE -
Inhaled: Breathing high concentrations of vapors or mists may cause irritation of nose, or mild drowsiness.
Contact with skin or eyes: This material may cause skin and eye irritation.
Swallowed: May cause gastric discomfort.

HEALTH EFFECTS OR RISKS FROM EXPOSURE -
Acute: May cause eye, skin & digestive track irritation.
Chronic: n/a

FIRST AID: EMERGENCY PROCEDURES -

Eye Contact: For direct contact, hold eyelids apart and flush the affected eye (s) with clean water for 15 minutes, If irritation or redness develops, seek medical attention.

Skin Contact: Remove contaminated clothing, cleanse affected area (s) thoroughly by washing with mild soap & water. If irritation or redness develops, seek medical attention.

Inhaled: Move victim away from source of exposure and into fresh air. If symptoms appear seek medical attention.

Swallowed: Seek immediate medical attention.

COMMENTS: This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC or OSHA. Ethylene glycol in this product is a probable hazard to the fetus based on tests with laboratory animals. 2-Butoxyethanol has caused blood disorders resulting in liver, kidney and spleen disorders in long term studies in laboratory animals. Reports have associated repeated and prolonged occupational over exposure to solvents with permanent brain & nervous system damage, (Sometimes referred to as solvent or painter's syndrome). Intentional misuse by deliberately concentrating & inhaling this product may be harmful or fatal.

VI. REACTIVITY DATA

Stability: Stable under ordinary use & storage.

Incompatibility (materials to avoid): Incompatible with strong oxidizing agents, anhydride, isocyanate, acetaldehyde, chlorine, ethylene oxide, hydrogen peroxide, aluminum and organometallic contaminants.

Hazardous Decomposition products (including combustion products): Carbon monoxide/ or carbon dioxide.

Hazardous polymerization: Will not occur.

VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill response procedures: For small spills, do not flush with water, use absorbant pads. Keep out of drains, sewers or waterways. Use sand or other inert material to dam and contain spill.

Preparing wastes for disposal: Dispose of product in accordance with local ordinance.

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: Normal shop ventilation is adequate.

Respiratory Protection: In working atmosphere where TLV or PEL levels are exceeded, use NIOSH approved chemical cartridge respirator.

Eye Protection: Approved eye protection to safeguard against potential eye contact, irritation or injury is recommended.

Gloves: The use of nitrile gloves impermeable to the specific material handled is advised.

Other clothing and equipment: It is suggested that a source of clean water be available in work area for flushing eyes & skin. Impervious clothing should be worn as needed.

OTHER HANDLING AND STORAGE REQUIREMENTS:

Keep containers tightly closed. Keep containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with the product. Use good personal hygiene practice. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

HURST CHEMICAL COMPANY furnishes Material Safety Data Sheets based upon information from raw material suppliers. This information is provided in compliance with Federal Regulation 29CFR 1910.

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