

15 SEP 1992

MSDS Id #: A-512

MATERIAL SAFETY DATA SHEET

Product Name: LIQUID HARDENER

Part #:51-395/292

SECTION I SUPPLIER INFORMATION

Common Name : LIQUID HARDENER
Chemical Name : MIXTURE
Formula/CAS : NA

Supplier : ALTA PHOTOGRAPHIC, INC. Supplier #:ALTA
Address : 11526 SORRENTO VALLEY RD
City, St, Zip: SAN DIEGO CA 92121 Phone: 619-453-5010

***** EMERGENCY PHONE #: 800-424-9300 *****

Date Issued: Date Entered: 03-26-92

Date Revised:

SECTION II INGREDIENT INFORMATION

ALUMINUM SULFATE
%: CAS #: 10043-01-3 PEL-OSHA: NE TLV-ACGIH: NE
ACETIC ACID
%: CAS #: 64-19-7 PEL-OSHA: 10PPM TLV-ACGIH: 10PPM

***** INGREDIENT HAZARD STATEMENT *****

WARNING: THIS PRODUCT IS IDENTIFIED AS A HAZARDOUS CHEMICAL UNDER THE OSHA HAZARDOUS COMMUNICATIONS STANDARD (29 CFR 1910.1200) DUE TO THE PRESENCE OF INGREDIENT(S) CITED ABOVE.

THIS PRODUCT IS REPORTABLE UNDER THE S.A.R.A. ACT OF 1986, TITLE III, SEC 313 (40 CFR PART 372), DUE TO ACETIC ACID.

THIS PRODUCT DOES NOT CONTAIN ANY KNOWN CHEMICAL(S) REPORTABLE UNDER THE CALIFORNIA SAFE DRINKING & TOXIC WATER ACT OF 1986. (CA PROP 65)

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point : 212 F
Specific Gravity (H2O = 1) : 1.245
Melting Point: NA PH=1.50

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS continued on the next page.

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS continued from previous page.

Vapor Pressure (mm Hg): APPROX 18
Vapor Density (Air=1): APPROX 1
Evaporation Rate (Butyl Acetate=1): APPROX 1
Solubility/Water: COMPLETE PERCENT VOLATILE BY VOLUME: >80% H2O

***** APPEARANCE AND ODOR *****

CLEAR TO LIGHT YELLOW SOLUTION, FAINT ACETIC ODOR.

***** ADDITIONAL INFORMATION *****

| SECTION IV FIRE AND EXPLOSION HAZARD DATA |

Flash Point: NONE
Auto-Ignition: NA
LEL: NA
UEL: NA

***** NFPA HAZARD CLASSIFICATION *****
Flammable: 0 Health: 1 Reactivity: 0 Special: 0

***** EXTINGUISHING MEDIA *****

WATER, DRY CHEMICAL, ALCOHOL FOAM, CO2
NON-FLAMMABLE.
FIGHT FIRE WITH MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.

***** SPECIAL FIRE FIGHTING PROCEDURES *****

NONE KNOWN.

***** UNUSUAL FIRE AND EXPLOSION HAZARDS *****

NONE KNOWN.

| SECTION V REACTIVITY DATA |

Stability? STABLE

Avoid: NONE

SECTION V REACTIVITY DATA is continued on the next page.

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***** INCOMPATIBILITY (Materials to Avoid) *****
STRONG ACIDS.

***** HAZARDOUS DECOMPOSITION OR BY-PRODUCTS *****
OXIDES OF SULFUR.

Polymerization? POLYMERIZATION WILL NOT OCCUR

Avoid: NONE KNOWN.

SECTION VI HEALTH HAZARD DATA

***** ROUTES OF ENTRY *****

Inhalation? YES
Skin? YES
Ingestion? YES
Eyes? YES

***** ADDITIONAL INFORMATION *****

CONTACT PERSON : JANET ALLETAG
R&D LABORATORY MANAGER.

***** CARCINOGENICITY *****

NTP? NO IARC? NO OSHA? NO

***** ACUTE AND CHRONIC HEALTH HAZARDS *****
MAY CAUSE EYE OR SKIN IRRITATION.

***** SIGNS AND SYMPTOMS OF EXPOSURE *****
EYE OR SKIN IRRITATION.

SECTION VI HEALTH HAZARD DATA is continued on the next page.

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***** MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE *****

NONE KNOWN.

***** EMERGENCY AND FIRST AID PROCEDURES *****

- INHALATION - REMOVE TO FRESH AIR. SEEK MEDICAL ATTENTION AS NEEDED.
- EYES - IMMEDIATELY FLUSH WITH WATER CONTINUOUSLY FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION AS NEEDED.
- SKIN - WASH WITH SOAP & WATER. SEEK MEDICAL ATTENTION AS NEEDED.
- INGESTION - DO NOT INDUCE VOMITING. CALL A PHYSICIAN & SEEK MEDICAL ATTENTION PROMPTLY. TREAT FOR THE PRESENCE OF INGREDIENT(S) CITED IN SECTION II.

SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

DOT Classification: UN 2790

***** STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED *****

WIPE UP SMALL SPILLS WITH A CLOTH OR TOWEL.
FOR LARGER SPILLS, ABSORB LIQUID WITH INERT MATERIAL, SUCH AS SAND OR DRY CLAY ABSORBANT. PREVENT RUN-OFF FROM ENTERING DRAINS OR SEWERS.

***** WASTE DISPOSAL METHOD *****

DISPOSAL SHOULD BE IN ACCORDANCE WITH EXISTING FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

***** PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE *****

STORE IN COOL, DRY AREA. AVOID FREEZING.
KEEP CONTAINER CLOSED WHEN NOT IN USE.

***** OTHER PRECAUTIONS *****

AVOID PROLONGED CONTACT WITH SKIN.

SECTION VIII CONTROL MEASURES is continued on the next page.

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| SECTION VIII CONTROL MEASURES |

***** RESPIRATORY PROTECTION *****

NONE.

***** VENTILATION *****

Local Exhaust: AS NEEDED.
Special Exhaust: AS NEEDED.
Mechanical Exhaust: AS NEEDED.

***** OTHER PROTECTION *****

Gloves: CHEMICAL RESISTANT RECOMMENDED.
Eye Protection: CHEMICAL SAFETY GOGGLES RECOMMENDED.

***** CLOTHING *****

PROTECTIVE SLEEVES AND IMPERMEABLE APRON.

***** WORK/HYGIENE PRACTICES *****

AVOID CONTACT WITH SKIN OR EYES. ALWAYS WASH UP BEFORE HANDLING PRODUCT &
BEFORE EATING, DRINKING, OR SMOKING.

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