

A.M.T.S. MATERIAL SAFETY DATA SHEET

REVISED
3/22/2004

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

MSDS CODE
SSF XOPT

TRADE NAME
OPTIMAL*FIX

PRODUCT DESCRIPTION
Tissue Fixative

**SUPPLIER: AMERICAN MASTER*TECH SCIENTIFIC, INC.
P.O. BOX 2539
LODI, CA 95241-2539
(209) 368-4031**

IN CASE OF EMERGENCY CONTACT INFOTRAC: 800-535-5053 (24 HOURS)

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

<u>NAME</u>	<u>CAS #</u>	<u>OSHA PELTW</u>	<u>OSHA STEL</u>	<u>ACGIH TLV</u>	<u>ACGIH STEL</u>
ETHYL ALCOHOL (ETHANOL)	64-17-5	1000 PPM	N/E	1000 PPM	N/E
ETHYLENE GLYCOL	107-21-1	50 PPM	N/E	50 PPM	N/E
ZINC CHLORIDE	7646-85-7	N/E	N/E	1.0 mg/M3	2.0 mg/M3
WATER	7732-18-5	N/E	N/E	N/E	N/E
ACETIC ACID	64-19-7	10 PPM	N/E	10 PPM	15 PPM

**N/E = EXPOSURE LIMITS ARE NOT ESTABLISHED
C = THRESHOLD LEVEL VALUE, CEILING
PNOC = PARTICULATES NOT OTHERWISE CLASSIFIED**

**N/A = NOT AVAILABLE
ND = NUISANCE DUSTS
RD = RESPIRABLE DUSTS**

**A = ACTION LEVEL
S = SKIN CONTACT**

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE / ODOR**

Colorless transparent liquid; alcoholic odor.

SPECIFIC GRAVITY

0.79 [Ethanol]

SOLUBILITY IN WATER

Soluble

VAPOR DENSITY

1.6 [Ethanol]

VAPOR PRESSURE

44.6 @ 20°C [Ethanol]

EVAPORATION RATE

3.30 [Ethanol]

MELTING POINT

-144°C [Ethanol]

BOILING POINT

78.4°C [Ethanol]

FLASH POINT

13°C TagCC

AUTO-IGNITION TEMP

363°C [Ethanol]

LOWER EXPLOSIVE LIMIT IN AIR

3.3% [Ethanol]

UPPER EXPLOSIVE LIMIT IN AIR

19.0% [Ethanol]

SECTION 4: FIRE AND EXPLOSION INFORMATION**WATER SPRAY**

NO

CARBON DIOXIDE

YES

FOAM, ALCOHOL / CHEMICAL

ALCOHOL

DRY CHEMICAL

YES

OTHER

N/A

SPECIAL FIRE FIGHTING PROCEDURES

Wear appropriate personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.).

UNUSUAL FIRE / EXPLOSION HAZARDS

Heavier-than-air invisible vapors are produced that can travel along the ground to a distant ignition source and ignite.

SECTION 5: REACTIVITY AND STABILITY DATA**STABILITY**

Stable

INCOMPATIBLE MATERIALS

Strong oxidizers, strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon oxides, smoke.

HAZARDOUS POLYMERIZATION

Not reported.

HAZARDOUS POLYMERIZATION CONDITIONS TO AVOID

None known.

SECTION 6: ACCIDENTAL RELEASE MEASURES AND DISPOSAL CONSIDERATIONS:**SPILL RESPONSE PROCEDURES**

Use appropriate personal protection equipment and standard laboratory safety procedures for cleanup. Keep spilled material away from heat, flame, ignition sources, and reactive materials. Wipe up or absorb spill using a dry inert material and place waste in a suitable container.

WASTE DISPOSAL PROCEDURE

Dispose all waste in accordance with local, state, and federal regulations.

SECTION 7: HAZARDS IDENTIFICATION:**SYMPTOMS OF ACUTE OVEREXPOSURE****INHALATION**

May irritate the respiratory tract, with stinging, burning, nasal discomfort, coughing.

CONTACT WITH EYES

May irritate eyes, with stinging, burning, watering, inflammation.

CONTACT WITH SKIN

May irritate skin, with stinging, itching, inflammation, drying.

INGESTION

May irritate gastrointestinal system, with nausea, vomiting, diarrhea.

SYMPTOMS AND HEALTH EFFECTS OF CHRONIC EXPOSURE**INHALATION**

Unknown.

EYE CONTACT

Unknown.

SKIN CONTACT

Unknown.

INGESTION

Unknown.

FIRST AID MEASURES:**EYE CONTACT**

Remove contact lenses if worn and flush eyes with plenty of water or buffered saline eye wash solution.
Get immediate medical attention.

SKIN CONTACT

Remove contaminated clothing and wash contact area thoroughly with mild soap and plenty of water.
Get medical attention if irritation develops.

INHALATION

Remove person to fresh air, keep at rest, and treat symptomatically.
Get medical attention if symptoms worsen.

INGESTION

Get immediate medical attention.

SECTION 7: HAZARDS IDENTIFICATION, continued**CARCINOGENICITY**

NTP
Not listed.

IARC
Not listed.

OSHA
Not listed.

CALIFORNIA PROPOSITION 65 WARNINGS

Not listed.

EPCRA SECTION 313 SUPPLIER NOTIFICATION**MEDICAL CONDITIONS AGGRAVATED BY PROLONGED EXPOSURE**

Unknown.

SECTION 8: HANDLING INFORMATION / EXPOSURE CONTROLS**HMIS HAZARD CODES****HEALTH HAZARD**

2 Low: Avoid contact. High exposure may result in injury.

FIRE HAZARD

3 High: Very likely to ignite on contact with spark or flame.

REACTIVITY

0 Non-Reactive: Will not react with water or most inert chemicals.

EQUIPMENT

G Use organic solvent rated respirator, chemical goggles, apron, and gloves in addition to all standard laboratory safety equipment.

VENTILATION

Mechanical Exhaust

PERSONAL HYGIENE

Wash hands thoroughly with soap and water before eating or drinking.

NOTICE TO READER: American Master*Tech Scientific Inc. believes the information contained in this Material Safety Data Sheet (MSDS) is current as of the Revision Date, but can not guarantee that the information is all inclusive. Any chemical may pose unknown hazards; if this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. User is responsible for determining appropriate methods of personal protection, handling, use, storage, and disposal of this product. User assumes all liability for any incidental or consequential damage resulting from the use of this product.