

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

TRADE NAME: Beta-mercaptoethanol

Catalog No.: 161-0710

Chemical identity, common names: 2-mercaptoethanol, thioglycol.

Formula: HSCH₂CH₂OH

M. W.: 78.14

MANUFACTURER'S NAME:
BIO-RAD LABORATORIES
2000 ALFRED NOBEL DRIVE
HERCULES, CALIFORNIA 94547

EMERGENCY PHONE No:
510/232-7000

DATE PREPARED OR REVISED: April 15, 1994

NAME OF PREPARER: Roy Wood

II. HAZARDOUS INGREDIENTS

<u>CHEMICAL NAMES</u>	<u>CAS NUMBERS</u>	<u>PERCENT</u>	<u>EXPOSURE LIMITS IN AIR</u>		
			<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>OTHER</u>
2-mercaptoethanol	60-24-2	100%	no information found		*
*ori-rat LD50: 244 mg/kg	Skin-rbt LD50: 150 mg/kg				

III. PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 157° C (315° F)

SPECIFIC GRAVITY(H₂O = 1): 1.114

VAPOR PRESSURE: 1@ 20° C

MELTING POINT: -100° C (-148° F)

SOLUBILITY IN WATER: Miscible with water.

VAPOR DENSITY(AIR = 1): 2.69

EVAPORATION RATE (BUTYL ACETATE = 1): no data found

APPEARANCE AND COLOR: Colorless liquid. Odor of mercaptan-Stench-Do not inhale fumes.

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 170° F

FLAMMABLE LIMITS: 2.3-18% by vol.

(METHOD USED): unknown.

EXTINGUISHING MEDIA: Alcohol foam, CO₂ Dry chemical, or water spray.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters must wear full protective clothing with self-contained breathing apparatus operated in pressure demand mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposition produces toxic fumes of CO, CO₂, and oxides of sulfur. Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

V. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE (for each potential route of exposure):

INHALED: Vapor irritates the mucous membranes and respiratory tract. Symptoms may include coughing, sore throat, shortness of breath.

CONTACT WITH SKIN OR EYES: Vapors irritate the eyes with redness and pain. Splashes may cause severe irritation.

ABSORBED THROUGH SKIN: Toxic. Causes skin irritation and may be absorbed in the body in toxic quantities.

SWALLOWED: Toxic. Harmful if swallowed. Sore throat, abdominal pain and vomiting may occur. May be fatal if swallowed.

HEALTH EFFECTS OR RISKS FROM EXPOSURE

ACUTE: May be fatal if inhaled, swallowed, or absorbed through skin. May cause irritation.

CHRONIC: No information found.

FIRST AID: EMERGENCY PROCEDURES

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention.

SKIN CONTACT: Remove contaminated clothing. Wash skin with soap and flowing water. Get medical attention if irritation develops.

INHALED: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SWALLOWED: If swallowed, get medical attention immediately.

SUSPECTED CANCER AGENT

NO: THIS PRODUCT'S INGREDIENTS ARE NOT FOUND IN THE LISTS BELOW.

YES: FEDERAL OSHA NTP IARC

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None known.

VI. REACTIVITY DATA

STABLE UNSTABLE

CONDITIONS TO AVOID: Heat, sparks, flame and contact with metals.

INCOMPATIBILITY (Materials to avoid): Strong alkali and oxidizing agents contact with metals.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen sulfide or oxides of sulfur.

HAZARDOUS POLYMERIZATION MAY OCCUR **WILL NOT OCCUR**

CONDITIONS TO AVOID: N/A

VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

SPILL RESPONSE PROCEDURES: Eliminate ignition sources. Wear self-contained breathing apparatus and full protective clothing.

PREPARING WASTES FOR DISPOSAL: Absorb with dirt, sand, or absorbents for disposal in approved landfill, or dilute with alcohol and incinerate in burner equipped with afterburner plus scrubber to collect oxides of sulfur. Comply with all applicable federal, state, and local regulations on spill reporting, waste handling, and waste disposal.

VIII. SPECIAL HANDLING INFORMATION

VENTILATION AND ENGINEERING CONTROLS: A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant.

RESPIRATORY CONTROLS: NIOSH approved organic vapor cartridge respirator is advised for low concentration, short duration exposure.

EYE PROTECTION: Chemical goggles and face shield.

GLOVES: Wear chemical resistant gloves such as neoprene.

OTHER CLOTHING AND EQUIPMENT: Lab coat or apron.

WORK PRACTICES, HYGIENIC PRACTICES: Use good laboratory practices. Wash hands after using and before eating. Do not eat, drink, or smoke in the work area.

OTHER HANDLING AND STORAGE REQUIREMENTS: Keep tightly sealed to protect quality. Store in a cool, dry, well-ventilated place away from incompatible materials. An eye wash should be nearby and ready to use.

PROTECTIVE MEASURES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Proper protective clothing, eye protection and NIOSH-approved respiratory equipment should be worn.

We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and conditions of use of the product are not within the control of Bio-Rad, it is the user's responsibility to handle the product under conditions of safe use.