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SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier 2-MERCAPTOETHANOL		Product Use Laboratory use	
Chemical formula HSCH ₂ CH ₂ OH		Product code MP-0117; MB-0117; ME-0117	Molar weight 78,13
Chemical name / Commercial name / Synonymous THIOETHYLENE GLYCOL, 2-HYDROXYETHYLMERCAPTAN, BME, β-MERCAPTOETHANOL, 2-HYDROXY-1-ETHANETHIOL, THIOGLYCOL			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
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Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 3/27/2020	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	<p>Skin corrosion/irritation - Skin irritation category 2</p> <p>Serious eye damage/eye irritation - Serious eye damage category 1</p> <p>Specific Target Organ Toxicity - Repeated exposure category 2</p> <p>Liquides inflammables category 4</p> <p>Acute toxicity - Oral category 3</p> <p>Acute toxicity - Dermal category 2</p> <p>Acute toxicity - Inhalation category 3</p> <p>Respiratory or skin sensitization - Skin sensitize category 1</p>
Signal Word	<p>DANGER</p>
Hazards statements (H)	<p>H227 Combustible liquid.</p> <p>H301 Toxic if swallowed.</p> <p>H310 Fatal in contact with skin.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H331 Toxic if inhaled.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p>
Precautionary statements (P)	<p>P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.</p> <p>P260 Do not breathe dust / fume / gas / mist / vapours / spray.</p> <p>P261 Avoid breathing dust / fume / gas / mist / vapours / spray.</p> <p>P262 Do not get in eyes, on skin, or on clothing.</p> <p>P264 Wash the areas of the body that have been in contact with the product after handling.</p> <p>P270 Do no eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER or doctor/physician.</p> <p>P311 Call a POISON CENTER or doctor/physician.</p> <p>P314 Get medical advice/attention if you feel unwell.</p> <p>P321 Specific treatment (see section 4 of the SDS and on this label).</p> <p>P330 Rinse mouth.</p> <p>P332 + P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.</p> <p>P362 + P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction.</p> <p>P403 Store in a well-ventilated place.</p> <p>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.</p>
PICTOGRAMS	
Other dangers	<p>NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)</p>

	Health 3 Fire 2 Reactivity 0 Special danger
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SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
2-mercaptoéthanol	60-24-2	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	Do NOT induce vomiting. If the person is conscious, rinse the mouth with water. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	Flammable in the presence of a source of ignition when the temperature is above the flash point. Heat, sparks and open flame.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a jet of water.
Hazardous combustion / decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides.
Special fire and explosion hazards	Containers exposed to fire may explode. Keep product and empty containers away from heat and sources of ignition. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personal precautions, protective equipment	Evacuate personnel to safe areas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Do not let product enter drains. Discharge into the environment must be avoided.
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SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Control	Value	Basis
2-MERCAPTOETHANOL	60-24-2	TLV, TWA, STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA, STEL	No data available	Canada. British Columbia OEL
		TLV, TWA, STEL	No data available	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Ventilation	Use fan.
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	Jaune clair / incolore.
Odour	Puant.
Odour threshold	Data not available
pH	4.5 - 6 à 500 g/l à 20 °C.
Melting point / Freezing point	-100°C
Initial boiling point	157°C
Boiling range	Data not available
Flash point	74°C
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	2.3% v/v
Upper flammable / Explosive limit	18% v/v
Vapour pressure	1.3 hPa à 20 °C.
Vapour density	2.70 - (Air = 1.0)-
Relative density	1.114g/cm ³
Solubility	Soluble dans l'eau. Miscible avec l'alcool, l'éther et le benzène..
Partition coefficient water/n-octanol	log Pow: -0.056 à 25 °C.
Auto-ignition temperature	295°C
Decomposition temperature	> 157°C
Viscosity	3.43 cP à 20 °C.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal conditions.
Chemical stability	Stable under recommended storage conditions. Reacts with water. Sensitive to heat.
Possibility of hazardous reactions	Stable under normal conditions.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Heat, flames and sparks. Avoid excessive heat. Exposure to moist air or water.
Incompatible material	Oxidation agents. Metals. Strong acid. Salts of heavy metals.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Sulphur oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

2-MERCAPTOETHANOL

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Causes serious eye irritation.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. The product is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Acute toxicity (Ingestion)	To our knowledge, the product has not been fully studied.
Chronic exposure effects / symptoms	Target organs: Liver. Heart. Suspected of harming the fetus. Suspected of damaging fertility. Burning sensation, Cough, asthma, laryngitis, Respiratory insufficiency, Migraine, Nausea, Vomiting, Weakness, Loss of consciousness, The product is extremely mucosal, upper respiratory tract, eye and skin, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchial tubes, pulmonary congestion, pulmonary edema.
DL50 (specify species and route of entry)	DL50- Oral(e) - mouse - 190 mg/kg LD50 Dermal - Rabbit - Male et female - 112-224 mg/kg.
CL50 (specify species and route of entry)	CL50 inhalation - Rat Male - 2.05 mg/L - 4 h.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	LC50 - Leuciscus idus (Golden orfe) - Static test: 37 mg/L - 4 d . EC50 - Daphnia magna (Water flea) - Static test: 0.4 mg/L - 48 h CE50 - Pseudomonas putida (Bacille Pseudomonas putida) - Static test: 125 mg/L - 17 h. EC50 - Desmodesmus subspicatus (green algae) - 12 mg/L - 72 h.
Persistence and degradability	Aerobic Biodegradability - Duration of exposure 60 days Result: 69% - Not readily biodegradable (OECD guideline 310). Request Biochemical Oxygen (BOD) 105 mg / g Notes: (IUCLID). Chemical Demand Oxygen (COD) 1.894 mg / g Notes: (IUCLID).
Bioaccumulative potential	Does not accumulate in organisms.
Mobility in soil	Probable mobility in the environment due to its solubility in water.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	2966
UN Proper shipping name	THIOGLYCOL
Transport hazard class(es)	6.1 Toxic substances
Packing group	II
Limited quantity index	0,1L
ERAP Index	-
Special precautions	-

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/eye irritation - Serious eye damage category 1 Specific Target Organ Toxicity - Repeated exposure category 2 Liquides inflammables category 4 Acute toxicity - Oral category 3 Acute toxicity - Dermal category 2 Acute toxicity - Inhalation category 3 Respiratory or skin sensitization - Skin sensitize category 1
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 3/27/2020