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INDEX: D52417414 CAT NO: AC118671000 PO NBR: 29561U

\*\*\*\*\* MATERIAL SAFETY DATA SHEET \*\*\*\*\*

Ethyl 2-Mercaptoacetate, 99% (GC)  
97225

\*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\*

MSDS Name: Ethyl 2-Mercaptoacetate, 99% (GC)  
Catalog Numbers: AC118670000, AC118670050, AC118671000, AC118675000  
Synonyms: Ethyl Thioglycolate

Company Identification (Europe): Acros Organics BVBA  
Janssen Pharmaceuticalaan 3a  
2440 Geel, Belgium

Company Identification (USA): Acros Organics  
One Reagent Lane  
Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01

For information in Europe, call: 0032(0) 14575211

For emergencies in the US, call CHEMTREC: 800-424-9300

For emergencies in Europe, call: 0032(0) 14575299

\*\*\*\* SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\*

CAS#	Chemical Name	%	EINECS#
623-51-8	Ethyl 2-Mercaptoacetate	97	210-800-3

Hazard Symbols: T  
Risk Phrases: 10 25 36/38

\*\*\*\* SECTION 3 - HAZARDS IDENTIFICATION \*\*\*\*

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 47 deg C.  
Warning! Flammable liquid and vapor. May cause respiratory tract irritation. Harmful if swallowed. Causes digestive tract irritation. May cause eye and skin irritation. Stench.

Target Organs: None.

Potential Health Effects

Eye: May cause eye irritation. Vapors may cause eye irritation.

Skin: May cause skin irritation.

Ingestion: Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Inhalation of vapor may cause respiratory tract irritation. Vapors may cause dizziness or suffocation.

Chronic: Not available.

\*\*\*\* SECTION 4 - FIRST AID MEASURES \*\*\*\*

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

\*\*\*\* SECTION 5 - FIRE FIGHTING MEASURES \*\*\*\*

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Flammable liquid and vapor.

Extinguishing Media:

Use water fog, dry chemical, carbon dioxide, or regular foam. Use agent most appropriate to extinguish fire.

Autoignition Temperature: Not available.

Flash Point: 47 deg C (116.60 deg F)

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Explosion Limits, lower: Not available.

Explosion Limits, upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 2; Instability: 0

\*\*\*\* SECTION 6 - ACCIDENTAL RELEASE MEASURES \*\*\*\*

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

\*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\*

Handling:

Wash thoroughly after handling. Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Wash clothing before reuse. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

\*\*\*\* SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION \*\*\*\*

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethyl 2-Mercaptoacetate	none listed	none listed	none listed

OSHA Vacated PELs:

Ethyl 2-Mercaptoacetate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective gloves to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

\*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\*

Physical State: Liquid  
Color: clear, colorless  
Odor: None reported.  
pH: Not available.  
Vapor Pressure: Not available.  
Vapor Density: Not available.  
Evaporation Rate: Not available.  
Viscosity: Not available.  
Boiling Point: 54 deg C @ 12.00mmHg  
Freezing/Melting Point: Not available.  
Decomposition Temperature: Not available.  
Solubility in water: Not available.  
Specific Gravity/Density: 1.0960g/cm3  
Molecular Formula: C4H8O2S  
Molecular Weight: 120.17

\*\*\*\* SECTION 10 - STABILITY AND REACTIVITY \*\*\*\*

Chemical Stability: Stable under normal temperatures and pressures.

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Conditions to Avoid:  
Incompatible materials, strong oxidants.  
Incompatibilities with Other Materials:  
Oxidizing agents, strong bases.  
Hazardous Decomposition Products:  
Carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.  
Hazardous Polymerization: Has not been reported.

\*\*\*\*\* SECTION 11 - TOXICOLOGICAL INFORMATION \*\*\*\*\*

RTECS#:  
CAS# 623-51-8: AI6650000  
LD50/LC50:  
CAS# 623-51-8: Oral, rat: LD50 = 178 mg/kg.  
Carcinogenicity:  
Ethyl 2-Mercaptoacetate -  
Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.  
Epidemiology:  
No data available.  
Teratogenicity:  
No data available.  
Reproductive Effects:  
No data available.  
Neurotoxicity:  
No data available.  
Mutagenicity:  
No data available.  
Other Studies:  
No data available.

\*\*\*\*\* SECTION 12 - ECOLOGICAL INFORMATION \*\*\*\*\*

\*\*\*\*\* SECTION 13 - DISPOSAL CONSIDERATIONS \*\*\*\*\*

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.  
US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.  
RCRA P-Series: None listed.  
RCRA U-Series: None listed.

\*\*\*\*\* SECTION 14 - TRANSPORT INFORMATION \*\*\*\*\*

US DOT  
Shipping Name: FLAMMABLE LIQUID, N.O.S.\*  
Hazard Class: 3  
UN Number: 1993  
Packing Group: III  
Canadian TDG  
No information available.

\*\*\*\*\* SECTION 15 - REGULATORY INFORMATION \*\*\*\*\*

US FEDERAL  
TSCA  
CAS# 623-51-8 is listed on the TSCA inventory.  
Health & Safety Reporting List  
None of the chemicals are on the Health & Safety Reporting List.  
Chemical Test Rules  
None of the chemicals in this product are under a Chemical Test Rule.  
Section 12b  
None of the chemicals are listed under TSCA Section 12b.  
TSCA Significant New Use Rule  
None of the chemicals in this material have a SNUR under TSCA.

SARA  
CERCLA Hazardous Substances and corresponding RQs  
None of the chemicals in this material have an RQ.  
SARA Section 302 Extremely Hazardous Substances  
None of the chemicals in this product have a TPQ.  
Section 313  
No chemicals are reportable under Section 313.

Clean Air Act:  
This material does not contain any hazardous air pollutants.  
This material does not contain any Class 1 Ozone depleters.  
This material does not contain any Class 2 Ozone depleters.  
Clean Water Act:  
None of the chemicals in this product are listed as Hazardous Substances under the CWA.  
None of the chemicals in this product are listed as Priority Pollutants under the CWA.  
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:  
None of the chemicals in this product are considered highly hazardous

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by OSHA.  
STATE  
Ethyl 2-Mercaptoacetate is not present on state lists from CA, PA, MN, MA, FL, or NJ.  
California: No Significant Risk Level:  
None of the chemicals in this product are listed.  
European/International Regulations

European Labeling in Accordance with EC Directives  
Hazard Symbols: T  
Risk Phrases:

R 10 Flammable.  
R 25 Toxic if swallowed.  
R 36/38 Irritating to eyes and skin.

Safety Phrases:  
S 16 Keep away from sources of ignition - No smoking.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection):  
CAS# 623-51-8: No information available.  
United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada  
CAS# 623-51-8 is listed on Canada's NDSL List.  
WHMIS: Not available.  
CAS# 623-51-8 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

\*\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*\*

MSDS Creation Date: 4/27/1998 Revision #2 Date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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Health