Material Safety Data Sheet
Mercaptoacetic Acid, 98%

ACC# 96576

Section 1 - Chemical Product and Company Identification

MSDS Name: Mercaptoacetic Acid, 98%
Catalog Numbers: AC125430000, AC125430010, AC125430100, AC125432500
Synonyms: Mercaptoacetic acid; Acetyl mercaptan; Thiolacetic acid; Thioglycolic acid.
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
68-11-1	Thioglycolic acid	98	200-677-4

Hazard Symbols: T C
Risk Phrases: 23/24/25 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. **Danger!** Corrosive. Harmful if swallowed. Causes severe eye and skin burns. Causes severe digestive and respiratory tract burns. May be fatal if absorbed through the skin. Keep refrigerated. (Store below 4°C/39°F.) Stench.
Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes severe eye burns. May cause irreversible eye injury.
Skin: May be fatal if absorbed through the skin. Causes skin burns. Strong irritant of the skin.
Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns. Mercaptans may cause nausea and headache. Exposure to high concentrations of mercaptans can produce unconsciousness with cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), cold extremities and rapid pulse.
Inhalation: May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Olfactory fatigue may occur. Exposure to high concentrations of mercaptans can produce unconsciousness with cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), cold extremities and rapid pulse. Mercaptans may cause nausea and headache.
Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).
Skin: Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.
Ingestion: Do NOT induce vomiting. 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 immediately.
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. Do NOT use mouth-to-mouth resuscitation.
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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Reacts with most metals to form highly flammable hydrogen gas which can form explosive mixtures with air. Reacts violently with water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May polymerize explosively when involved in a fire. Containers may explode when heated.
Extinguishing Media: Do NOT get water inside containers. For small fires, use dry chemical, carbon dioxide, or water spray. For large fires, use dry chemical, carbon dioxide, alcohol-resistant foam, or water spray. Cool containers with flooding quantities of water until well after fire is out.
Flash Point: 128 deg C (262.40 deg F)
Autoignition Temperature: 350 deg C (662.00 deg F)
Explosion Limits, Lower:5.9%
Upper: Not available.
NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 2

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. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Do not get water inside containers.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Do not reuse this container. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Do not get on skin or in eyes. Do not ingest or inhale. Keep from contact with clothing and other combustible materials. Discard contaminated shoes. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage: Keep away from heat and flame. Do not store near combustible materials. Store in a cool, dry place. Keep refrigerated. (Store below 4°C/39°F.) Keep container closed when not in use. Keep away from metals. Corrosives area. Do not store in metal containers.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use substance with extreme caution and designate regulated areas for use. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Thioglycolic acid	1 ppm TWA; skin - potential for cutaneous absorption	1 ppm TWA; 4 mg/m3 TWA	none listed

OSHA Vacated PELs: Thioglycolic acid: 1 ppm TWA; 4 mg/m3 TWA
Personal Protective Equipment
Eyes: Wear chemical goggles and face shield.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless
Odor: unpleasant odor
pH: 1.6 (10% solution)
Vapor Pressure: 10 mm Hg @18 deg C
Vapor Density: 3.18
Evaporation Rate: Not available.
Viscosity: 6.35 cPs @ 20 deg C
Boiling Point: 123 deg C
Freezing/Melting Point:-16.5 deg C
Decomposition Temperature: Not available.
Solubility: Soluble in water
Specific Gravity/Density:1.325
Molecular Formula:HSCH2COOH
Molecular Weight:92.11

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions. Oxidizes when exposed to air.
Conditions to Avoid: Excess heat.
Incompatibilities with Other Materials: Strong oxidizing agents and strong bases. Reacts with group 1 and 2 metals (Sodium, Potassium, Magnesium, ...) to produce hydrogen gas. Corrosive to steel, stainless steel, nickel base alloys, and aluminum.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, sulfur oxides (SOx), including sulfur oxide and sulfur dioxide.
Hazardous Polymerization: May occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 68-11-1: AI5950000
LD50/LC50:
CAS# 68-11-1:
Inhalation, rat: LC50 = 210 mg/m3/4H;

Oral, mouse: LD50 = 242 mg/kg;
Oral, rabbit: LD50 = 119 mg/kg;
Oral, rat: LD50 = 114 mg/kg;

Carcinogenicity:
CAS# 68-11-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.
Other Studies: Human draize test data exists for a 3% solution.

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: No information available.
Physical: No information available.
Other: Probably does not accumulate. In an animal study, 60% of a dose of thioglycolic acid was excreted in the urine within a day in the form of inorganic sulfate or neutral sulfur compounds.

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	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	THIOGLYCOLIC ACID				No information available.
Hazard Class:	8				
UN Number:	UN1940				
Packing Group:	II				

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 68-11-1 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.
SARA Codes
CAS # 68-11-1: acute.
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 depletors. This material does not contain any Class 2 Ozone depletors.
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 by OSHA.
STATE
CAS# 68-11-1 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.
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 C
Risk Phrases:
R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R 34 Causes burns.

Safety Phrases:
S 2 Keep out of reach of children.
S 25 Avoid contact with eyes.
S 27 Take off immediately all contaminated clothing.
S 28 After contact with skin, wash immediately with...
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 28C After contact with skin, wash immediately with a sodium borate solution.

WGK (Water Danger/Protection)
CAS# 68-11-1: 1
Canada - DSL/NDSL
CAS# 68-11-1 is listed on Canada's DSL List.
Canada - WHMIS
This product has a WHMIS classification of D1B, E.
Canadian Ingredient Disclosure List
CAS# 68-11-1 is listed on the Canadian Ingredient Disclosure List.
Exposure Limits
CAS# 68-11-1: OEL-AUSTRALIA:TWA 1 ppm (4 mg/m3) OEL-BELGIUM:TWA 1 ppm (3.8 mg/m3) OEL-DENMARK:TWA 1 ppm (5 mg/m3) OEL-FINLAND:TWA 1 ppm (5 mg/m3);STEL 3 ppm (15 mg/m3) OEL-FRANCE:TWA 1 ppm (5 mg/m3);Skin OEL-HUNGARY:TWA 0.5 mg/m3;STEL 1 mg/m3 OEL-RUSSIA:STEL 0.1 mg/m3;Skin OEL-SWITZERLAND:TWA 1 ppm (4 mg/m3);Skin OEL-UNITED KINGDOM:TWA 1 ppm (3.8 mg/m3);Skin OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 10/23/1998
Revision #3 Date: 3/18/2003