



# THIOGLYCOLIC ACID

## PRODUCT INFORMATION

CHEMICAL NAME: Mercaptoacetic acid  
CHEMICAL FAMILY: Thiovanic acid  
CHEMICAL FORMULA: C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>S      MOLECULAR WEIGHT: 92.11  
SHIPPING NAME: Thioglycolic acid  
PIN - (UN/NA): 1940      WHMIS: E D.2A  
PRODUCT USE:

Reagent for iron; manufacture of thioglycolates; permanent wave solutions and depilatories; vinyl stabilizer; manufacture of pharmaceuticals.

MANUFACTURER: Elf Atochem North America, Inc.  
2000 Market Street  
Philadelphia, Pa. 19103  
Emergency Phone: (800)-424-9300 or 703-527-3887

SUPPLIER: Panther Industries Inc.  
P.O. Box 628  
Davidson, Saskatchewan  
Phone: (306)567-2814  
EMERGENCY TELEPHONE NUMBER: (306)567-2814

## HAZARDOUS INGREDIENTS

| INGREDIENTS:      | WEIGHT % | C.A.S. REGISTRY # |
|-------------------|----------|-------------------|
| Thioglycolic acid | 100      | 68-11-1           |

## PHYSICAL DATA

PHYSICAL STATE: Liquid  
ODOUR AND APPEARANCE: Colourless liquid, irritating odour.  
ODOUR THRESHOLD: Not available  
VAPOUR PRESSURE: 10 mmHg@18 C      VAPOUR DENSITY: Not available  
EVAPORATION RATE: Not available      pH: Not available  
BOILING POINT: 105oC (221oF) at 11 minutes  
FREEZING POINT: -16.5oC  
SOLUBILITY IN WATER/OTHER MATERIALS:  
Thioglycolic acid is soluble in water, light alcohols, and ethers.  
SPECIFIC GRAVITY: 1.298  
MOLECULAR WEIGHT: 92.1  
VISCOSITY: 4.29 cP @ 20 oC  
N-OCTANOL/WATER PARTITION COEFFICIENT: log Pow = 0.059  
OTHER PHYSICAL DATA: Crystallization: -41.5 C ; Refractive Index: 1.50 @ 20 C

## FIRE AND EXPLOSION DATA

MEANS OF EXTINGUISHING: Water spray, CO<sub>2</sub>, dry chemical, foam.  
FLASH POINT: 110oC (230 F)      FLASH POINT METHOD: PMCC  
UPPER FLAMMABLE LIMIT: Not available  
LOWER FLAMMABLE LIMIT: Not available  
AUTO IGNITION TEMPERATURE: 288 C  
HAZARDOUS COMBUSTION PRODUCTS:  
When burned , the following hazardous products of combustion can occur: Hydrogen sulfide;



# THIOGLYCOLIC ACID

Sulfur oxides, Oxides of carbon.

## SPECIAL FIRE FIGHTING PROCEDURES:

Water may be ineffective. Use water spray or water fog to cool surrounding surfaces and prevent fire damage or rupture of containers. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting gear. and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

EXPLOSION HAZARDS: Not available

## REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Does Not Occur

INCOMPATIBILITY:

Avoid contact with strong acids, bases or oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: None Known.

CONDITIONS TO AVOID: Heat, flames, sparks, ignition sources.

HEALTH HAZARD DATA

INHALATION:

Inhalation of fumes or vapours is expected to be irritating to eyes, mucous membranes and the respiratory tract. Moderately toxic after inhalation.

SKIN CONTACT: Can cause severe burns upon contact.

EYE CONTACT: May cause severe burns upon contact. May cause blindness.

INGESTION: May cause severe injury to the mouth, throat and digestive tract. Moderately toxic after ingestion.

EXPOSURE LIMITS: 4 mg/m<sup>3</sup> 8 hour average contamination limit

8 mg/m<sup>3</sup> 15 minute average contamination limit

(Saskatchewan Occupational Health and Safety Act, Jan. 1989)

(Check applicable legislation for your province.)

IRRITANCY: Not available      MUTAGENICITY: Not available

CARCINOGENICITY: Not available

SENSITIZATION TO PRODUCT: Not available

REPRODUCTIVE TOXICITY: Not available

TOXICOLOGICALLY SYNERGISTIC MATERIALS: Not available

TERATOGENICITY DATA: Not available

ANIMAL TOXICITY DATA: LD50 Oral (rat) = 54-73 mg/kg

LD50 Dermal (rabbit) = 848 mg/kg

## FIRST AID MEASURES

INHALATION: Remove to fresh air. If not breathing, give Artificial Respiration. If breathing difficult, give oxygen. Get medical attention.

SKIN CONTACT: Wash thoroughly with soap and water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing/ shoes before reuse.

EYE CONTACT: Flush with plenty of water for at least 15 minutes. Get medical attention.

INGESTION: Do not induce vomiting. Give water to drink. Get medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONCIOUS PERSON.

## PREVENTATIVE MEASURES

RESPIRATORY PROTECTION:



# THIOGLYCOLIC ACID

Avoid breathing vapour or mist. Use NIOSH approved respirator protection.

**SKIN PROTECTION:** Wear appropriate chemical resistant protective clothing and gloves to prevent skin contact. Butyl rubber or Neoprene gloves should be worn. Wash skin thoroughly after handling.

**EYE/FACE PROTECTION:** Where there is potential for eye contact, wear a face shield chemical goggles, and have eye flushing equipment immediately available.

**SPECIAL HANDLING PROCEDURES:** Ensure emergency shower and eye wash is close by.

**STORAGE REQUIREMENTS:**

Keep container closed. Store in a cool, dry, well ventilated area. Keep away from food and drink. Isolate from incompatible materials.

**ENGINEERING CONTROLS:** Local exhaust. Mechanical (general) is required.

**SPECIAL SHIPPING REQUIREMENTS:** UN 1940 Class 8(6.1) P.G. II

Primary Hazard - Corrosive Subsidiary Hazard - Toxic

When transporting by ocean vessel, use primary label only.

## ENVIRONMENTAL PROTECTION DATA

**STEPS IN THE EVENT OF A LEAK OR SPILL:**

Contain spill . Ventilate area. Pump liquid into a DOT-approved drum and absorb remaining liquid onto an inert absorbent and place in a DOT-approved drum. Wash area with water. Keep concentrate and wash water from entering sewers or waterways. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

**ENVIRONMENTAL EFFECTS:** Not available

**WASTE DISPOSAL METHODS:**

Incineration is the recommended method for disposal observing all local, provincial/ state, federal regulations.

## PREPARATION INFORMATION

MSDS PREPARED BY: Technical Department  
Panther Industries Inc.

TELEPHONE NUMBER: (306) 567-2814

DATE PREPARED/REVISED: March 09 2007

DATE PRINTED: March 9 2007

REFERENCES:

1. Manufacturer's MSDS.