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CONTACT: +9122 28725393 /94/ 95 | EMAILID: CARE@SUVCHEM.COM

**MATERIAL SAFETY DATA SHEET (MSDS)****THIOMALIC ACID (FOR SYNTHESIS)****1 - Chemical Product**

MSDS Name: Thiomalic acid;  
Synonym: Mercaptobutanedioic acid

Cas NO:70-49-5

Product Coad:T0204005000

Molecular Formula: C<sub>4</sub>H<sub>6</sub>O<sub>4</sub>S  
Molecular Weight: 150.15

**2 - COMPOSITION, INFORMATION ON INGREDIENTS**

CAS#	Chemical Name	content	EINECS#
70-49-5	DL-Mercaptosuccinic acid	>98	200-736-4

**3 - HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

The toxicological properties of this material have not been fully investigated.

**Potential Health Effects**

Eye:May cause eye irritation.

Skin:May cause skin irritation. May cause allergic contact dermatitis.

Ingestion:May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Inhalation:May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic:No information found.

**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.

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

Ingestion:Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

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

Notes to Physician:

**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.

Extinguishing Media:Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**6 - ACCIDENTAL RELEASE MEASURES**

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

Spills/Leaks:Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.Provide ventilation.

**7 - HANDLING and STORAGE**

Handling:Wash thoroughly after handling. Use with adequate ventilation.

Minimize dust generation and accumulation. Avoid breathing dust, vapor, mist, or gas. Avoid contact with eyes, skin, and clothing.

Keep container tightly closed. Avoid ingestion and inhalation.

Storage:Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

**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 adequate ventilation to keep airborne concentrations low.

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Exposure Limits CAS# 70-49-5: 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 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 respirator use.

**9 - PHYSICAL AND CHEMICAL PROPERTIES**

Physical State: Crystals  
Color: white  
Odor: Sulfidic  
pH: Not available.  
Vapor Pressure: Not available.  
Viscosity: Not available.  
Boiling Point: Not available.  
Freezing/Melting Point: 152 - 155 deg C  
Autoignition Temperature: Not available.  
Flash Point: Not applicable.  
Explosion Limits, lower: Not available.  
Explosion Limits, upper: Not available.  
Decomposition Temperature:  
Solubility in water: Soluble.  
Specific Gravity/Density:  
Molecular Formula: C<sub>4</sub>H<sub>6</sub>O<sub>4</sub>S  
Molecular Weight: 150.15

**10 - STABILITY AND REACTIVITY**

Chemical Stability:Stable under normal temperatures and pressures.  
Conditions to Avoid:Dust generation, excess heat.  
Incompatibilities with Other Materials:Strong oxidizing agents, strong bases.  
Hazardous Decomposition Products:Carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide.  
Hazardous Polymerization: Will not occur.

**11 - TOXICOLOGICAL INFORMATION**

RTECS#:  
CAS# 70-49-5: WM8225000 LD50/LC50:  
Not available.  
Carcinogenicity:  
DL-Mercaptosuccinic acid - Not listed by ACGIH, IARC, or NTP.  
Other:See actual entry in RTECS for complete information.

**12 - ECOLOGICAL INFORMATION****13 - DISPOSAL CONSIDERATIONS**

Dispose of in a manner consistent with federal, state, and local regulations.

**14 - TRANSPORT INFORMATION**

Not regulated.

**15 - REGULATORY INFORMATION**

European/International Regulations  
European Labeling in Accordance with EC Directives  
Hazard Symbols: Not available.

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## Risk Phrases:

## Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 70-49-5: No information available.

Canada

CAS# 70-49-5 is listed on Canada's DSL List.

CAS# 70-49-5 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

## TSCA

CAS# 70-49-5 is listed on the TSCA inventory.

**16. Other Information****Product Use:** Laboratory Reagent.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

## DISCLAIMER:

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
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- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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