

Material Safety Data Sheet

2-Mercapto-1-methylimidazole, 98%

ACC# 30122

Section 1 - Chemical Product and Company Identification

MSDS Name: 2-Mercapto-1-methylimidazole, 98%

Catalog Numbers: AC125500250, AC125501000

Synonyms: Methimazole; 1-Methylimidazole-2-thiol; Mercazolyl; Thiamazole; 1-Methyl-2-mercaptoimidazole.

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
60-56-0	2-Mercapto-1-methylimidazole	98	200-482-4

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white to light cream crystalline powder.

Caution! Stench. May cause allergic skin reaction. This substance has caused adverse reproductive and fetal effects in humans. May cause eye, skin, and respiratory tract irritation. May be harmful if swallowed. Light sensitive. This product contains 2-Mercapto-1-methylimidazole, a chemical known to the state of California to cause developmental effects.

Target Organs: Blood, thyroid.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation. May cause an allergic reaction in certain individuals. Rashes may follow high doses of methimazole.

Ingestion: In high doses may cause gastric irritation, nausea, vomiting, fever, skin rashes, and blood abnormalities including anemia. May be harmful if swallowed. May cause pain and stiffness in joints, paresthesias, headache, and loss or depigmentation of hair.

Inhalation: Causes irritation of the mucous membrane and upper respiratory tract. May cause sore throat, headache, and other effects similar to those of ingestion.

Chronic: Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects. Chronic exposure can affect thyroid function. Chronic exposure may cause blood effects. Chronic exposure may cause blood effects, like agranulocytosis, a symptom complex characterized by marked decrease in number of granulocytes and by lesions of throat and other mucous membranes of GI tract and of the skin.

Section 4 - First Aid Measures

Eyes: Immediately 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 immediately. 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 immediately. 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: 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.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Flash Point: > 100 deg C (> 212.00 deg F)

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 1; Instability: 0

Section 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. Wash area with soap and water. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale.

Storage: Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Hormones and antibiotics room. Store protected from light.

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 adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
2-Mercapto-1-methylimidazole	none listed	none listed	none listed

OSHA Vacated PELs: 2-Mercapto-1-methylimidazole: 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 gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

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.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder

Appearance: white to light cream

Odor: stench

pH: ~neutral (in sol)

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 280 deg C @ 760 mm Hg

Freezing/Melting Point: 143-146 deg C

Decomposition Temperature: 280 deg C

Solubility: soluble

Specific Gravity/Density: Not available.

Molecular Formula: C₄H₆N₂S

Molecular Weight: 114.16

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Light sensitive.

Conditions to Avoid: Light, dust generation.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, oxides of sulfur, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 60-56-0: NI8615000

LD50/LC50:

CAS# 60-56-0:

Oral, mouse: LD50 = 860 mg/kg;

Oral, rat: LD50 = 2250 mg/kg;

Carcinogenicity:

CAS# 60-56-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: Methimazole is an antithyroid medication that is given orally or rectally to treat hyperthyroidism. Methimazole crosses the placenta & can produce hypothyroidism & goiter in the offspring of treated animals & humans.

Reproductive Effects: Adverse reproductive effects have occurred in experimental animals.

Mutagenicity: See actual entry in RTECS for complete information.

Neurotoxicity: No information found
Other Studies:

Section 12 - Ecological Information

No information available.

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	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 60-56-0 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.

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 # 60-56-0: delayed.

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# 60-56-0 can be found on the following state right to know lists: New Jersey.

California Prop 65

WARNING: This product contains 2-Mercapto-1-methylimidazole, a chemical known to the state of California to cause developmental reproductive toxicity.

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:

XN

Risk Phrases:

R 22 Harmful if swallowed.

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 60-56-0: No information available.

Canada - DSL/NDSL

CAS# 60-56-0 is listed on Canada's DSL List.

Canada - WHMIS

not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information

MSDS Creation Date: 7/01/1999

Revision #5 Date: 10/03/2005

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 event shall Fisher 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 Fisher has been advised of the possibility of such damages.