

## Section 1 - Product and Company Information

Product Name SE-METHYL-SELENO-L-CYSTEINE  
 Product Number 09974  
 Brand FLUKA  
 Company Sigma-Aldrich Canada, Ltd  
 Address 2149 Winston Park Drive  
 Oakville ON L6H 6J8 CA  
 Technical Phone: 9058299500  
 Fax: 9058299292  
 Emergency Phone: 800-424-9300

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
SE-METHYL-SELENO-L-CYSTEINE	26046-90-2	Yes

Synonyms (R)-2-Amino-3-(methylseleno)propionic acid \*  
3-(Methylseleno)-L-alanine

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Toxic. Dangerous for the environment.  
 Toxic by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 Target organ(s): Central nervous system. Heart.

## HMIS RATING

HEALTH: 2\*  
 FLAMMABILITY: 0  
 REACTIVITY: 0

## NFPA RATING

HEALTH: 2  
 FLAMMABILITY: 0  
 REACTIVITY: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

## ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

## INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

## DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

## EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

## Section 5 - Fire Fighting Measures

## FLASH POINT

N/A

## AUTOIGNITION TEMP

N/A

## FLAMMABILITY

N/A

## EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

## FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
 Specific Hazard(s): Emits toxic fumes under fire conditions.

## Section 6 - Accidental Release Measures

## PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

## PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

## METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

## Section 7 - Handling and Storage

## HANDLING

User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

## STORAGE

Suitable: Keep tightly closed.

## Section 8 - Exposure Controls / PPE

## ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

## PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN

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(EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.  
 Hand: Compatible chemical-resistant gloves.  
 Eye: Chemical safety goggles.

## GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

## Section 9 - Physical/Chemical Properties

## Appearance

Physical State: Solid

## Property

Value

At Temperature or Pressure

Molecular Weight 182.08 AMU  
 pH N/A  
 BP/BP Range N/A  
 MP/MP Range N/A

Freezing Point N/A  
 Vapor Pressure N/A  
 Vapor Density N/A  
 Saturated Vapor Conc. N/A

Bulk Density N/A  
 Odor Threshold N/A  
 Volatile% N/A

VOC Content N/A  
 Water Content N/A  
 Solvent Content N/A

Evaporation Rate N/A  
 Viscosity N/A  
 Surface Tension N/A

Partition Coefficient N/A  
 Decomposition Temp. N/A  
 Flash Point N/A

Explosion Limits N/A  
 Flammability N/A  
 Autoignition Temp N/A

Refractive Index N/A  
 Optical Rotation N/A  
 Miscellaneous Data N/A  
 Solubility N/A

N/A - not available

## Section 10 - Stability and Reactivity

## STABILITY

Stable: Stable.  
 Materials to Avoid: Strong oxidizing agents.

## HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Selenium/selenium oxides.

## HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

## Section 11 - Toxicological Information

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## ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.  
 Skin Absorption: May be harmful if absorbed through the skin.  
 Eye Contact: May cause eye irritation.  
 Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. Toxic if inhaled.  
 Ingestion: Toxic if swallowed.

## TARGET ORGAN(S) OR SYSTEM(S)

Liver. Lungs. Heart. Central nervous system.

## SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## Section 12 - Ecological Information

No data available.

## Section 13 - Disposal Considerations

## APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

## Section 14 - Transport Information

## DOT

Proper Shipping Name: Selenium compound, n.o.s.  
 UN#: 3283  
 Class: 6.1  
 Packing Group: Packing Group II  
 Hazard Label: Toxic substances.  
 PIH: Not PIH

## IATA

Proper Shipping Name: Selenium compound, n.o.s.  
 IATA UN Number: 3283  
 Hazard Class: 6.1  
 Packing Group: II

## Section 15 - Regulatory Information

## EU DIRECTIVES CLASSIFICATION

Symbol of Danger: I-N  
 Indication of Danger: Toxic. Dangerous for the environment.  
 R: 23/25-33-50/53  
 Risk Statements: Toxic by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 S: 20/21-28-45-60-61  
 Safety Statements: When using do not eat, drink, or smoke. After contact with skin, wash immediately with plenty of soap-suds. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

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## US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Toxic. Dangerous for the environment.  
 Risk Statements: Toxic by inhalation and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
 Safety Statements: When using do not eat, drink, or smoke. After contact with skin, wash immediately with plenty of soap-suds. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.  
 US Statements: Target organ(s): Central nervous system. Heart.

## UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes  
 DEMINIMIS: 1 %  
 NOTES: This product is subject to SARA section 313 reporting requirements - selenium compounds.

## CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.  
 DSL: No  
 NDSL: No

## Section 16 - Other Information

## DISCLAIMER

For R&D use only. Not for drug, household or other uses.

## WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2009 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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