

# SAFETY DATA SHEET

Cat# 2408-100, -500, -1000 L-Selenomethionine

SDS DATE: Sep 13, 2013

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** L-Selenomethionine  
**PRODUCT CODES:** Cat# 2408-100, -500, -1000  
**MANUFACTURER:** BioVision, Inc.  
**ADDRESS:** 155 S. Milpitas Boulevard, Milpitas, CA 95035  
**EMERGENCY PHONE:** 858-373-8066  
**CHEMTREC PHONE:**  
**OTHER CALLS:** 408-493-1800  
**FAX PHONE:** 408-493-1801

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Component	Description	Volume	Safety Information
L-Selenomethionine	Solid	2408-100: 100 mg 2408-500: 500 mg 2408-1000: 1 g	See below

## SECTION 3: HAZARDS IDENTIFICATION

Product Name/Chemical Name	CAS Number	EC-No.	Molecular Weight	Chemical Formula
L-Selenomethionine	3211-76-5	034-002-00-8	196.11	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> Se

### L-Selenomethionine:

#### Emergency Overview

**OSHA Hazards:** Target organ effect, Toxic by ingestion, Toxic by inhalation

**Target Organs:** Eyes, Liver, Kidney, Blood, Spleen, Nerves

**GHS Classification:** Acute toxicity, Oral (Category 3)  
Acute toxicity, Inhalation (Category 3)  
Specific target organ toxicity – repeated exposure (Category 2)  
Acute aquatic toxicity (Category 1)  
Chronic aquatic toxicity (Category 1)

#### GHS Label elements, including precautionary statements

##### Pictogram:



**Signal word:** Danger

**Hazard statement(s):** H301+H331 Toxic if swallowed or if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statement(s):** P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P330 Rinse mouth.

#### HMIS Classification

**Health hazard:** 2  
**Chronic health hazard:** \*  
**Flammability:** 0  
**Physical hazards:** 0

#### NFPA Rating

**Health Hazard:** 2  
**Fire:** 0  
**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation:** Toxic if inhaled. May cause respiratory tract irritation.  
**Skin:** May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes:** May cause eye irritation.  
**Ingestion:** Toxic if swallowed.

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## SECTION 4: FIRST AID MEASURES

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.  
**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.  
**In case of eye contact:** Flush eyes with water as a precaution.  
**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5: FIRE-FIGHTING MEASURES

**Condition of flammability:** Not flammable or combustible.  
**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
**Special protective equipment for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary.  
**Hazardous combustion products:** Hazardous decomposition products formed under fire conditions— no data available.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, gas, or dust. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.  
**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.  
**Methods for cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling**  
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.  
**Conditions for safe storage**  
Keep container tightly closed in a dry and well-ventilated place.  
Recommended storage temperature: -20 °C.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### DMSO:

Components	CAS-No.	Value	Control parameters	Basis
L-(+)-Selenomethionine	3211-76-5	TWA	0.2 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m <sup>3</sup>	USA. OSHA –Table Z-1 Limits for Air Contaminants – 1910.1000
		TWA	0.2 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.2 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
		TWA	0.2 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Eye & upper respiratory tract irritation.			
		TWA	0.2 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.2 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	L-Selenomethionine
Appearance:	White to off-white solid
pH:	No data available
Water Solubility:	50 mg/ml
Other Solubility:	No data available
Boiling Point (°C):	No data available
Melting Point (°C):	265-167 °C (509-513 °F)
Flash Point (°C):	No data available
Ignition Temperature (°C):	No data available
Density:	No data available

## SECTION 10: STABILITY AND REACTIVITY

Property	L-Selenomethionine
Chemical stability	Stable under recommended storage conditions
Conditions to avoid:	No data available
Materials to avoid:	Strong oxidizing agents
Hazardous decomposition products:	Carbon oxides, nitrogen oxides, selenium/selenium oxides

## SECTION 11: TOXICOLOGICAL INFORMATION

### L-Selenomethionine:

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

### **Carcinogenicity:**

IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to human (L-(+)-Selenomethionine)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

**Teratogenicity:** no data available

**Specific target organ toxicity – single exposure (GHS):** no data available

**Specific target organ toxicity – repeated exposure (GHS):** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard:** no data available

### **Potential Health Effects**

**Inhalation:** Toxic if inhaled. May cause respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes:** May cause eye irritation.

**Ingestion:** Toxic if swallowed.

**Signs and Symptoms of Exposure:** Exposure may cause gastrointestinal disturbance, nausea, dizziness, and/or headache. Acute selenium poisoning produces central nervous system effects, which include nervousness, convulsions, and drowsiness. Other signs of intoxication can include skin eruptions, lassitude, gastrointestinal distress, teeth that are discolored or decayed, odorous (“garlic”) breath, and atrial loss of hair and nails. Chronic exposure by inhalation can produce symptoms that include pallor, coating of the tongue, anemia, irritation of the mucosa, lumbar pain, liver and spleen damage, as well as any of the other previously mentioned symptoms. Chronic contact with selenium compounds may cause garlic odor of breath and sweat, dermatitis, and moderate emotional instability.

**Synergistic effects:** no data available

**Additional information:** RTECS: EK7713840

## SECTION 12: ECOLOGICAL INFORMATION

### L-Selenomethionine:

**Persistence and degradability:** no data available

**Toxicity:** no data available

**Bioaccumulative potential:** Lepomis macrochirus – 12 weeks

Bioconcentration factor (BCF): 7.5

**Mobility in soil:** no data available

**PBT and vPvB assessment:** no data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

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## SECTION 13: DISPOSAL CONSIDERATIONS

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

**Contaminated packaging:** Dispose of as unused product.

## SECTION 14: TRANSPORT INFORMATION

### L-Selenomethionine:

**DOT (US):** UN-number: 3283, Class: 6.1, Packing group: II; Proper shipping name: Selenium compound, solid, n.o.s. (L-Selenomethionine); Marine pollutant: No; Poison inhalation hazard: No

**IMDG:** UN-number: 3283, Class: 6.1, Packing group: II; EMS-No: F-A, S-A; Proper shipping name: SELENIUM COMPOUND, SOLID, N.O.S. (L-Selenomethionine); Marine pollutant: No

**IATA:** UN-number: 3283, Class: 6.1, Packing group: II; Proper shipping name: Selenium compound, solid, n.o.s. (L-Selenomethionine)

## SECTION 15: REGULATORY INFORMATION

### L-Selenomethionine:

**OSHA Hazards:** Target organ effect, Toxic by ingestion, Toxic by inhalation

**SARA 302 Components:** SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** The following components are subject to reporting levels established by SARA Title III, Section 313:

L-Selenomethionine, CAS-No. 3211-76-5; Revision Date: 1987-01-01

**SARA 311/312 Hazards:** Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components:** No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components:** L-Selenomethionine, CAS-No. 3211-76-5; Revision Date: 1987-01-01

**New Jersey Right To Know Components:** L-Selenomethionine, CAS-No. 3211-76-5; Revision Date: 1987-01-01

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### EU regulations

Component	Risk Phrases	Safety Phrases
L-Selenomethionine	R23/25, R33, R50/53	S20/21, S28, S45, S60, S61

## SECTION 16: OTHER INFORMATION

### OTHER INFORMATION:

#### PREPARATION INFORMATION:

#### DISCLAIMER:

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. BioVision, 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.