

Safety data sheet

1 Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Microtracer 4.5% Selenium on Sand

1.2. Relevant identified uses of the substance or mixture:

A Source of the element selenium for use in manufacturing animal, poultry and aquatic feeds

Uses advised against:

Not intended for human consumption

1.3 Details of the supplier of the safety data sheet

Micro-Tracers, Inc – 1375 Van Dyke Ave., San Francisco, CA, 94124, USA

Phone: 1-415-822-1100

Fax: 1-415-822-6615

info@microtracers.com

1.4. Further information obtainable from: david@microtracers.com

Emergency telephone number: CHEMTEL: 1-800-255-3924 or 813-248-0585 (24 hours/day)

2 Hazards identification

2.1. Classification of the substance or mixture

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Inhalation (Category 3), H331

Skin sensitisation (Category 1), H317

Acute aquatic toxicity (Category 2), H401

Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2. GHS Label elements

Signal word

Danger

Hazard statement(s)

H300

Fatal if swallowed.

H317

May cause an allergic skin reaction.

H331

Toxic if inhaled.

H411

Toxic to aquatic life with long lasting effects

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Contact with acids liberates toxic gas.

3 Composition/information on ingredients

3.1. Chemical characterization: Mixtures

· **Description:** Sand (Silica)- 89% minimum, Sodium Selenite (CAS # 10102-18-8) - 10%, and food grade vegetable Oil - less than 1%

3.2. **Dangerous components:** Acute Tox. 2; Acute Tox. 3; Skin Sens. 1; Aquatic Acute 2; Aquatic Chronic 2; H300, H317, H331, H411

3.3. **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

4.1 Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

(Contd. on page 2)

Safety data sheet

Trade name: Microtracer 4.5% Selenium on Sand

(Contd. of page 1)

- 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. Take victim immediately to hospital. 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.*
- 4.2. Most important symptoms and effects, both acute and delayed:** *The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11*
- 4.3. Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

5.1. Extinguishing media

Suitable extinguishing agents: Dry powder

5.2. Special hazards arising from the substance or mixture: *Sodium oxide, Selenium/selenium oxides*

5.3. Advice for firefighters: *Wear self-contained breathing apparatus for firefighting if necessary*

6 Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures:** *Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.*
- 6.2. 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.*
- 6.3. Methods and material for containment and cleaning up:** *Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable closed containers for disposal*
- 6.4. Reference to other sections**
See Section 13 for disposal information.

7 Handling and storage

- 7.1 Precautions for safe handling:** *Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.*
- 7.2 Conditions for safe storage, including any incompatibilities:** *Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Keep in a dry place. Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials*
- 7.3 Specific end use(s):** *Apart from the uses mentioned in section 1.2 no other specific uses are stipulated*

Trade name: Microtracer 4.5% Selenium on Sand

8 Exposure controls/personal protection

8.1. Additional information about design of technical facilities:

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Sodium selenite	10102-18-8	TWA	0.200000 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.200000 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation		
		Eye irritation		
		TWA	0.200000 mg/m ³	USA. NIOSH Recommended Exposure Limits

8.2 Exposure Controls

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

Personal protective equipment

- **Eye/face 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 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.
- **Body Protection:** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of dangerous substance at specific workplace.
- **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).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

9.1. Appearance:

Form: Uniformly sized particles (range 150-600 microns)
Color: Yellowish-Grey.
Odor: Characteristic
Odor threshold: Not determined.

9.2. **pH-value :** Not available

9.3. Change in condition

Melting point/Melting range: Sodium selenite decomposes at 600 degrees C.
Boiling point/Boiling range: Undetermined.

Safety data sheet
according to 1907/2006/EC, Article 31

Page 4/6

Trade name: Microtracer 4.5% Selenium on Sand

(Contd. from page 3)

9.4. Flash point:	Undetermined.
9.5. Flammability (solid, gaseous):	Not determined. None of the major components (sand and sodium selenite) are flammable
9.6. Ignition temperature:	Not determined.
9.7. Decomposition temperature:	Coloring, if added, may decompose above 90 ° C.
9.8. Self-igniting:	Product is not self-igniting.
9.9. Danger of explosion:	Product does not present an explosion hazard.
9.10. Explosion limits: Lower:	Not determined.
Upper:	Not determined.
9.11. Vapour pressure:	Not applicable.
9.12. Bulk Density at 20°C:	1.7-2.0 g/cm ³
Relative density	Not determined.
9.13. Vapor density	Not applicable.
9.14. Evaporation rate	Not applicable.
9.15. Solubility in / Miscibility with water:	The sodium selenite has a solubility of 47g/100ml at 25 degrees C. The sand and vegetable oil are water insoluble
9.16. Segregation coefficient (n-octanol/water):	Not determined.
9.17. Viscosity:	
Dynamic:	Not applicable.
9.18. Solvent content:	
Organic solvents:	0.0 %
9.19. Solids content:	100.0 %
9.20. Other information	No further relevant information available.

10 Stability and reactivity

- 10.1. **Chemical stability:** Stable for a minimum of two years in its original packing. It will cake on exposure to atmospheric moisture
- 10.2. **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- 10.3. **Possibility of hazardous reactions** No dangerous reactions known.
Conditions to avoid Containers once opened must be securely sealed if a portion of the product is to be stored. The product is mildly hygroscopic.
Incompatible materials: Strong acids
Hazardous decomposition products: Other decomposition products - no data available. In the event of fire: see section 5.

11 Toxicological information

Information on toxicological effects of sodium selenite

11.1. Acute toxicity

LD50 Oral - Mouse	7.08 mg/kg
LD50 Oral - Rabbit	2.25 mg/kg
Cardiac:	Pulse rate increased without fall in BP.
Lungs, Thorax, or Respiration:	Respiratory stimulation. Diarrhea

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Page 5/6

Trade name: Microtracer 4.5% Selenium on Sand

(Contd. from page 4)

LD50 Oral - Guinea pig -	5.06 mg/kg
Cardiac:	Pulse rate increased without fall in BP.
Lungs, Thorax, or Respiration:	Respiratory stimulation. Diarrhea
Inhalation:	No data available
Dermal:	No data available
LD50 Intravenous - Rat	3 mg/kg
LD50 Parenteral - Rat	6.57 mg/kg
LD50 Subcutaneous - Mouse	13 mg/kg
Skin corrosion/irritation:	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization	
Germ cell mutagenicity:	Laboratory experiments have shown mutagenic effects.
Carcinogenicity:	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

12 Ecological information

12.1. Toxicity	
Aquatic toxicity:	Acute aquatic toxicity
12.2. Persistence and degradability:	No further relevant information available.
12.3. Bioaccumulative potential:	Bioaccumulates in rivers and lakes
12.4. Mobility in soil:	No further relevant information available.
12.5. Additional ecological information:	
General notes:	Acute aquatic toxicity

13 Disposal considerations

- 13.1 Waste treatment methods:** Dispose of as hazardous waste. Wear cotton gloves, coveralls and a dust mask or if a large spill occurs
- Uncleaned packaging:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· ADR, ADN, IMDG, IATA	2630; EMS-No: F-A, S-A
· UN proper shipping name	
· ADR, ADN, IMDG, IATA	Sodium selenite
· Transport hazard class(es)	
· ADR, ADN, IMDG, IATA	
· Class	6.1
· Packing group	
· ADR, IMDG, IATA	I
· Environmental hazards:	
· Marine pollutant:	Yes
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

Safety data sheet
according to 1907/2006/EC, Article 31

Trade name: Microtracer 4.5% Selenium on Sand

15 Regulatory information

SARA 302 Components

The following components are subject to reporting levels established by SARA Title III, Section 302:

<i>Sodium selenite</i>	<i>CAS-No.</i>	<i>Revision Date</i>
	10102-18-8	2008-11-03

SARA 313 Components

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

<i>Sodium selenite</i>	<i>CAS-No.</i>	<i>Revision Date</i>
	10102-18-8	2008-11-03

SARA 311/312 Hazards

Acute Health Hazard

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..

16 Other information

Full text of H-Statements referred to under sections 2 and 3.

<i>Acute Tox.</i>	<i>Acute toxicity</i>
<i>Aquatic Acute</i>	<i>Acute aquatic toxicity</i>
<i>Aquatic Chronic</i>	<i>Chronic aquatic toxicity</i>
<i>H300</i>	<i>Fatal if swallowed.</i>
<i>H317</i>	<i>May cause an allergic skin reaction.</i>
<i>H331</i>	<i>Toxic if inhaled.</i>
<i>H401</i>	<i>Toxic to aquatic life.</i>
<i>H411</i>	<i>Toxic to aquatic life with long lasting effects.</i>
<i>Skin Sens.</i>	<i>Skin sensitisation</i>

HMIS Rating

<i>Health hazard:</i>	4
<i>Chronic Health Hazard:</i>	
<i>Flammability:</i>	0
<i>Physical Hazard</i>	0

NFPA Rating

<i>Health hazard:</i>	2
<i>Fire Hazard:</i>	0
<i>Reactivity Hazard:</i>	0

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.