

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: Sodium Selenite 45%

Identification numbers

CAS no. 10102-18-8
EC no. 233-267-9
Index no. 034-003-00-3

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Mineral nutrient source for animal feed.

Uses of the substance or mixture advised against

Not for human consumption.

Details of the supplier of the safety data sheet

Supplier Pestell Nutrition
Address 141 Hamilton Rd
New Hamburg, Ontario
Canada, N3A 2H1

Phone 519-662-2877

Email qa@pestell.com

Emergency telephone number (24 hr) Canada: CANUTEC 1 613-996-6666
US: CHEMTREC 1 703-527-3887

2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity, Oral (Category 2)
Acute toxicity, Inhalation (Category 2)
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2A)
Skin sensitisation (Category 1)
Acute aquatic toxicity (Category 2)
Chronic aquatic toxicity (Category 2)

Label elements

Signal Word DANGER

Hazard pictograms



GHS06



GHS09



Hazard statements

H300 + H330 Fatal if swallowed or if inhaled
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/ eye protection/ face protection.
P284	Wear respiratory protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Other hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Chemical characterization

Substance name	sodium-selenite
Formula	Na ₂ SeO ₃
Molecular weight	172.94

CAS-No.	EC-No.	Index-No.	Concentration
Sodium selenite			
10102-18-8	233-267-9	034-003-00-3	<=100%

Mixtures

Not applicable. The product is not a mixture.

4. FIRST AID MEASURES

Description of first aid measures

General information

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. In case of accident or if you feel unwell, seek medical advice immediately. If the patient is likely to become unconscious, place and transport in stable sideways position.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. Irregular breathing/no breathing: artificial respiration. Summon a doctor immediately.

After skin contact

When in contact with the skin, clean with soap and water. Transport victim immediately to hospital. See a doctor.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min). Transport victim immediately to hospital. See a doctor.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse out mouth and give plenty of water to drink.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of any immediate medical attention and special treatment needed

No data available.

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use dry powder.

Unsuitable extinguishing media

This product is hygroscopic. Do not use water against fire with this product.

Hazardous combustion products

In case of combustion hazardous product formation includes oxides of selenium and oxides of sodium.

Advice for firefighters

Use self-contained breathing apparatus. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Wear protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. 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 and materials 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.

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. Never allow product to get in contact with water during storage. Do not store near acids.

Product is hygroscopic. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Basis
Sodium selenite	10102-18-8	TWA	0.200000 mg/m ³	Canada, Alberta, Occupational Health and Safety Code (table 2: OEL)

Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		TWAEV	0.200000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.100000 mg/m3	Canada. British Columbia OEL
		TWA	0.2 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWAEV	0.2 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	0.1 mg/m3	Canada. British Columbia OEL
		TWA	0.200000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)

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.

Specific engineering controls

Use general or localized mechanical exhaust to avoid respiratory exposure. Safety showers and eyewash stations should be available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid, crystalline powder
Colour	Clear-white
pH	Weakly alkaline
Melting point/freezing point	Melting point/range: > 350 °C (> 662 °F)
Boiling point	No data available
Flash point	No data available
Flammability (solid, gas)	not auto-flammable
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Relative Density	5.96
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Odour	odourless
Odour Threshold	No data available
Evaporation rate	No data available
Relative vapour density	No data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions. This product is hygroscopic.

Possibility of hazardous reactions

No data available

Conditions to avoid

Humidity and incompatible materials.

Incompatible materials

Strong acids

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium oxides, Selenium/selenium oxides
Other decomposition products - No data available

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Oral LD50

LD50 Oral - Rat - 7 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity). Lungs, Thorax, or Respiration:Dyspnea. Diarrhoea

LD50 Oral - Rat - male - 7 mg/kg

Inhalation LC50

LC50 Inhalation - Rat - male and female - 4 h - > 0.052 - 0.51 mg/l

Dermal LD50

No data available

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE) - Irritating to skin. - OECD Test Guideline 439

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

Mouse - OECD Test Guideline 429 - May cause allergic skin reaction.

Germ cell mutagenicity

Genotoxicity in vitro - reverse mutation assay - Salmonella typhimurium - negative

Genotoxicity in vivo - Mouse - male - Intraperitoneal - negative

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.

Reproductive toxicity

No data available

Teratogenicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

No data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

No data available

Aspiration hazard

No data available

Potential health effects

Inhalation	May be fatal if inhaled. Causes respiratory tract irritation.
Ingestion	May be fatal if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

Salivation, Tremors, Alopecia., Vomiting, Dermatitis

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

Synergistic effects

No data available

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 2.75 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates	LC50 - Daphnia magna (Water flea) - 0.25 mg/l - 48 h
Toxicity to algae	static test EC50 - Chlamydomonas reinhardtii (green algae) - 6.32 mg/l - 96 h Method: OECD Test Guideline 201

Persistence and degradability

No data available

Bioaccumulative potential

Bioaccumulation	Lepomis macrochirus - 120 d Bioconcentration factor (BCF): 1,850
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Mobility in soil

No data available

PBT and vPvB assessment

No data available

Other adverse effects

Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 2630 Class: 6.1 Packing group: I
Proper shipping name: Selenites (Sodium selenite)
Reportable Quantity (RQ): 100 lbs
Marine pollutant: Yes
Poison Inhalation Hazard: No

TDG (Canada)

UN number: 2630 Class: 6.1 Packing group: I
Proper shipping name: Selenites (Sodium selenite)
Marine pollutant: Yes
Poison Inhalation Hazard: No

IMDG

UN number: 2630 Class: 6.1 Packing group: I
Proper shipping name: SELENITES (Sodium selenite)
Marine pollutant: Yes

EMS-No: F-A, S-A

IATA

UN number: 2630 Class: 6.1 Packing group: I
Proper shipping name: Selenites (Sodium selenite)

15. REGULATORY INFORMATION**WHMIS Classification**

D1A	Very Toxic Material Causing Immediate and Serious Toxic Effects	Highly toxic by ingestion
D2B	Toxic Material Causing Other Toxic Effects	Highly toxic by inhalation Moderate skin irritant Moderate eye irritant Skin sensitiser

16. OTHER INFORMATIONDisclaimer

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. Pestell Nutrition and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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