

Material Safety Data Sheet



Selenium Premix 1%,2%,3%,4%, 4.5% Se

1 . Product and company identification

Common name : Selenium Premix 1%,2%,3%,4%, 4.5% Se

Material uses : Included in animal feeds.

Supplier/Manufacturer : Pestell Minerals & Ingredients
141 Hamilton Road
New Hamburg, Ontario
Canada, N3A 2H1
Tel : (519) 662-2877
Fax : (519) 662-6242
E-mail: pestellgroup@pestell.com

In case of emergency : CANUTEC (613) 996-6666

MSDS authored by: : Kemika XXI Inc. + 1-450-435-7475

June 3, 2009

2 . Hazards identification

Physical state : Solid.

Color : Off white or tan.

Hazard status : This material is classified hazardous under OSHA regulations in the United States and the WHMIS Controlled Product Regulation in Canada.

Emergency overview : DANGER !

MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
CAUSES SEVERE EYE AND SKIN IRRITATION.
CAUSES RESPIRATORY TRACT IRRITATION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

Do not ingest. Do not get in eyes or on skin or clothing. Do not breathe dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eyes : Severely irritating to eyes.

Skin : May be fatal if absorbed through skin. Severely irritating to the skin.

Inhalation : May be harmful by inhalation. Irritating to respiratory system.

Ingestion : May be fatal if swallowed.

Potential chronic health effects : Carcinogenic effects Classified 3 (Not classifiable for humans.) by IARC [Sodium selenite].

Mutagenic effects Not available.

Teratogenic effects: Not available.

Medical conditions aggravated by over-exposure : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated or prolonged exposure to the substance can produce target organ damage.

See toxicological information (section 11)

3 . Composition/information on ingredients

United States

Name	CAS number	%
Limestone	1317-65-3	60 - 100
Sodium selenite	10102-18-8	10 - 30

Canada

Name	CAS number	%
Sodium selenite	10102-18-8	10 - 30

4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes. Get medical attention immediately.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Notes to physician** : No specific antidote. Medical staff must contact Poison Control Center.

5 . Fire-fighting measures

- Flammability of the product** : Non-flammable.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
 - Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

7 . Handling and storage

- Handling** : Do not ingest. Do not get in eyes or on skin or clothing. Keep container closed. Use only with adequate ventilation. Do not breathe dust. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

United States

Product name

Limestone

Exposure limits
NIOSH REL (United States, 12/2001).

 TWA: 5 mg/m³ 10 hour(s). Form: Respirable fraction

 TWA: 10 mg/m³ 10 hour(s). Form: Total dust

OSHA PEL (United States, 8/1997).

 TWA: 5 mg/m³ 8 hour(s). Form: Respirable fraction

 TWA: 15 mg/m³ 8 hour(s). Form: Total dust

Sodium selenite

ACGIH TLV (United States, 1/2005).

 TWA: 0.2 mg/m³ 8 hour(s). Form: All forms.

OSHA PEL (United States, 8/1997).

 TWA: 0.2 mg/m³ 8 hour(s). Form: All forms

Canada

Product name

Sodium selenite

Exposure limits
ACGIH TLV (United States, 1/2005).

 TWA: 0.2 mg/m³ 8 hour(s). Form: All forms

Engineering measures

- : Use only with adequate ventilation. If user operations generate dust, fumes, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection
Eyes : Splash goggles.

Skin : Synthetic apron.

Respiratory : Vapor respirator.

Hands : Nitrile gloves.

HMIS Code/Personal protective equipment : J

Personal protection in case of a large spill : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear.

Hygiene measures : Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

9 . Physical and chemical properties

Physical state : Solid.

Color : Off white or tan.

pH : Basic.

Melting/freezing point : 350°C (662°F) based on data for: Sodium selenite.

Relative density : The only known value is 2.7 (Water = 1) (Limestone).

Solubility : Soluble in cold water, hot water.

10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
- Incompatibility with various substances** : Reactive with oxidizing materials and acids.
- Hazardous polymerization** : Will not occur.
- Conditions of reactivity** : Not available.

11 . Toxicological information

Toxicity data

Product/ingredient name	Test	Result	Route	Species
Sodium selenite	LD50	7 mg/kg	Oral	Rat
4% Sodium selenite Premix	LD50	79 mg/kg	Oral	Rat
1% Sodium selenite Premix	LD50	315 mg/kg	Oral	Rat

Acute Effects

- Eyes** : Severely irritating to eyes.
- Skin** : May be fatal if absorbed through skin. Severely irritating to the skin.
- Inhalation** : May be harmful by inhalation. Irritating to respiratory system.
- Ingestion** : May be fatal if swallowed.
- Potential chronic health effects** : Carcinogenic effects Classified 3 (Not classifiable for humans.) by IARC [Sodium selenite].
Mutagenic effects Not available.
Teratogenic effects Not available.
- Target organs** : Contains material which causes damage to the following organs: upper respiratory tract, skin, eye, lens or cornea.

12 . Ecological information

Ecotoxicity data

Product/ingredient name	Species	Period	Result
Sodium selenite	Daphnia magna (EC50)	48 hour(s)	0.47 mg/l
	Daphnia magna (EC50)	48 hour(s)	1 mg/l
	Daphnia magna (EC50)	48 hour(s)	1.1 mg/l
	Daphnia pulex (LC50)	96 hour(s)	0.071 mg/l
	Daphnia pulex (LC50)	96 hour(s)	0.126 mg/l
	Daphnia magna (LC50)	96 hour(s)	0.44 mg/l

- Environmental precautions** : No known significant effects or critical hazards.
- Products of degradation** : These products are carbon oxides. Some metallic oxides.
- Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.


13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.


14 . Transport information

AERG : 151

Regulatory information	Proper shipping name	Class	UN number	PG	Label
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UN / IMDG / IATA Classification	SELENIUM COMPOUND, N.O.S.	6.1	UN3283	III	
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DOT Classification	SELENIUM COMPOUND, N.O.S.	6.1	UN3283	III	
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TDG Classification	SELENIUM COMPOUND, (3% & 4.5%) N.O.S.	6.1	UN3283	III	
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15 . Regulatory information

United States

HCS Classification : Highly toxic material
Irritating material
Target organ effects

U.S. Federal regulations : TSCA : All components listed.
SARA 302/304/311/312 extremely hazardous substances: Sodium selenite
SARA 302/304 emergency planning and notification: Sodium selenite
SARA 302/304/311/312 hazardous chemicals: Limestone; Sodium selenite
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Limestone: Immediate (acute) health hazard; Sodium selenite: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Sodium selenite
Clean Water Act (CWA) 311: Sodium selenite
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

Form R - Reporting requirements	Product name	CAS number	Concentration
Supplier notification	: Sodium selenite	10102-18-8	10 - 30
	: Sodium selenite	10102-18-8	10 - 30

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations : Pennsylvania RTK: Limestone: (generic environmental hazard); Sodium selenite: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Limestone; Sodium selenite
New Jersey: Sodium selenite
California prop. 65: No products were found.

Canada

WHMIS (Canada) : Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).



CEPA DSL: All components listed.

CEPA NDSL: Limestone

This product has been classified in accordance with the hazard criteria of the Canadian CPR and the United States OSHA. This MSDS contains all the information required by the CPR and OSHA, the American National Standard Institute (ANSI) Z400.1.

International lists : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

Label requirements (U.S.A.) : MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
CAUSES SEVERE EYE AND SKIN IRRITATION.
CAUSES RESPIRATORY TRACT IRRITATION.
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

Hazardous Material Information System (U.S.A.) :

HMIS RATING

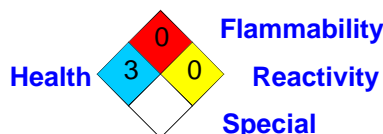
Health	*	3
Fire hazard		0
Physical Hazard		0
Personal protection		J

HAZARD RATINGS

4- Extreme
3- Serious
2- Moderate
1- Slight
0- Minimal

See section 8 for more detailed information on personal protection.

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005.

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Notice to reader

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