

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

Version: 4  
Revision date: 18/01/2018

Page 1 of 8  
Print date: 18/01/2018

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

#### 1.1 Product identifier.

Product Name: STRONTIUM OXALATE  
Chemical Name: strontium oxalate  
CAS No: 814-95-9  
EC No: 212-415-6

#### 1.2 Relevant identified uses of the substance and uses advised against.

Pirotechnic

#### Uses advised against:

Uses other than those recommended.

#### 1.3 Details of the supplier of the safety data sheet.

Company: **ALDEBARÁN SISTEMAS SL**  
Address: C/Jerónimo Zurita, 10, entlo izda, 50001  
City: Zaragoza  
Province: Zaragoza  
Telephone: 0034976796134  
E-mail: aldebaran@aldebaransistemas.com

#### 1.4 Emergency telephone number: 0034915620420 (Available 24 hours)

### SECTION 2: HAZARDS IDENTIFICATION.

#### 2.1 Classification of the substance.

In accordance with Regulation (EU) No 1272/2008:

Acute Tox. 4 : Harmful in contact with skin.  
Acute Tox. 4 : Harmful if swallowed or in contact with skin.

#### 2.2 Label elements.

##### Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal Word:

**Warning**

H statements:

H302+H312 Harmful if swallowed or in contact with skin.

P statements:

P264 Wash with water thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P330 Rinse mouth.

-Continued on next page.-

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

**Version: 4**  
**Revision date: 18/01/2018**

**Page 2 of 8**  
**Print date: 18/01/2018**

P362+P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container to following local/national regulations.

Contains:  
strontium oxalate

### 2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

### 3.1 Substances.

Chemical Name:	strontium oxalate
CAS No:	814-95-9
EC No:	212-415-6

### 3.2 Mixtures.

Not Applicable.

## SECTION 4: FIRST AID MEASURES.

### 4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

#### Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

#### Eye contact.

If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

#### Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. **NEVER** use solvents or thinners.

#### Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. **NEVER** induce vomiting.

### 4.2 Most important symptoms and effects, both acute and delayed.

Harmful Product, prolonged exposure due to inhalation may cause anaesthetic effects and the need for immediate medical assistance.

### 4.3 Indication of any immediate medical attention and special treatment needed.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

**Version: 4**  
**Revision date: 18/01/2018**

**Page 3 of 8**  
**Print date: 18/01/2018**

### SECTION 5: FIREFIGHTING MEASURES.

The product is NOT classified as flammable, in case of fire the following measures should be taken:

#### **5.1 Extinguishing media.**

##### **Recommended extinguishing methods.**

Extinguisher powder or CO<sub>2</sub>. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

#### **5.2 Special hazards arising from the substance.**

##### **Special risks.**

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

#### **5.3 Advice for firefighters.**

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

##### **Fire protection equipment.**

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

### SECTION 6: ACCIDENTAL RELEASE MEASURES.

#### **6.1 Personal precautions, protective equipment and emergency procedures.**

For exposure control and individual protection measures, see section 8.

#### **6.2 Environmental precautions.**

Prevent the contamination of drains, surface or subterranean waters, and the ground.

#### **6.3 Methods and material for containment and cleaning up.**

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

#### **6.4 Reference to other sections.**

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

### SECTION 7: HANDLING AND STORAGE.

#### **7.1 Precautions for safe handling.**

Store in tightly closed containers in a dry and cool environment.  
Ensure sufficient ventilation / aspiration in the workplace.

#### **7.2 Conditions for safe storage, including any incompatibilities.**

No special measures are required.

Keep the recipient hermetically sealed.

Store it in well-cracked containers in a dry and cool place. The product is not affected by Directive 2012/18/EU (SEVESO III).

#### **7.3 Specific end use(s).**

Not available.

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

Version: 4  
Revision date: 18/01/2018

Page 4 of 8  
Print date: 18/01/2018

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

#### 8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

#### 8.2 Exposure controls.

##### Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

<b>Concentration:</b>	<b>100 %</b>				
<b>Uses:</b>	<b>Pirotechnic</b>				
<b>Breathing protection:</b>					
PPE:	Particle filter mask				
Characteristics:	«CE» marking, category III. Made of filtering material, it covers nose, mouth and chin.				
CEN standards:	EN 149				
Maintenance:	Check for any tears, defects, etc. before use. Since it is disposable individual protection equipment, it should be replaced after use.				
Observations:	Does not protect worker unless properly adjusted. Follow the manufacturer's instructions regarding suitable use of the equipment.				
Filter Type needed:	P2				
<b>Hand protection:</b>					
PPE:	Protective gloves against chemicals.				
Characteristics:	«CE» marking, category III.				
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420				
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.				
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.				
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480	Material thickness (mm):	0,35
<b>Eye protection:</b>					
PPE:	Protective goggles against particle impacts.				
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.				
CEN standards:	EN 165, EN 166, EN 167, EN 168				
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.				
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.				
<b>Skin protection:</b>					
PPE:	Protective clothing.				
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.				
CEN standards:	EN 340				
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.				
Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.				
PPE:	Work footwear.				

-Continued on next page.-

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

**Version: 4**  
**Revision date: 18/01/2018**

**Page 5 of 8**  
**Print date: 18/01/2018**

Characteristics:	«CE» marking, category II.
CEN standards:	EN ISO 13287, EN 20347
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

#### 9.1 Information on basic physical and chemical properties.

Appearance: White Powder  
Colour: N.A./N.A.  
Odour: N.A./N.A.  
Odour threshold: N.A./N.A.  
pH: N.A./N.A.  
Melting point: N.A./N.A.  
Boiling Point: 365,1 °C  
Flash point: 188,8 °C  
Evaporation rate: N.A./N.A.  
Inflammability (solid, gas): N.A./N.A.  
Lower Explosive Limit: N.A./N.A.  
Upper Explosive Limit: N.A./N.A.  
Vapour pressure: N.A./N.A.  
Vapour density: N.A./N.A.  
Relative density: N.A./N.A.  
Solubility: N.A./N.A.  
Liposolubility: N.A./N.A.  
Hydrosolubility: N.A./N.A.  
Partition coefficient (n-octanol/water): N.A./N.A.  
Auto-ignition temperature: N.A./N.A.  
Decomposition temperature: N.A./N.A.  
Viscosity: N.A./N.A.  
Explosive properties: N.A./N.A.  
Oxidizing properties: N.A./N.A.  
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

#### 9.2 Other information.

Pour point: N.A./N.A.  
Blink: N.A./N.A.  
Kinematic viscosity: N.A./N.A.  
N.A./N.A.= Not Available/Not Applicable due to the nature of the product

### SECTION 10: STABILITY AND REACTIVITY.

#### 10.1 Reactivity.

No information available.

#### 10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

#### 10.3 Possibility of hazardous reactions.

NO dangerous reactions are known

#### 10.4 Conditions to avoid.

No more relevant data

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

**Version: 4**  
**Revision date: 18/01/2018**

**Page 6 of 8**  
**Print date: 18/01/2018**

### 10.5 Incompatible materials.

No more relevant data

### 10.6 Hazardous decomposition products.

Carbon monoxide, carbon dioxide and metal oxide smoke.

## SECTION 11: TOXICOLOGICAL INFORMATION.

### 11.1 Information on toxicological effects.

There are no tested data available on the product.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Splatters in the eyes can cause irritation and reversible damage.

a) acute toxicity;

Product classified:

Acute toxicity (Dermal), Category 4: Harmful in contact with skin.

Acute toxicity (Oral), Category 4: Harmful if swallowed.

b) skin corrosion/irritation;

Not conclusive data for classification.

c) serious eye damage/irritation;

Not conclusive data for classification.

d) respiratory or skin sensitisation;

Not conclusive data for classification.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Not conclusive data for classification.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure;

Not conclusive data for classification.

i) STOT-repeated exposure;

Not conclusive data for classification.

j) aspiration hazard;

Not conclusive data for classification.

## SECTION 12: ECOLOGICAL INFORMATION.

### 12.1 Toxicity.

No information is available regarding the ecotoxicity.

### 12.2 Persistence and degradability.

No information is available about persistence and degradability of the product.

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

**Version: 4**  
**Revision date: 18/01/2018**

**Page 7 of 8**  
**Print date: 18/01/2018**

### 12.3 Bioaccumulative potencial.

No information is available regarding the bioaccumulation.

### 12.4 Mobility in soil.

No information is available about the mobility in soil.  
The product must not be allowed to go into sewers or waterways.  
Prevent penetration into the ground.

### 12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

### 12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

## SECTION 13 DISPOSAL CONSIDERATIONS.

### 13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.  
Follow the provisions of Directive 2008/98/EC regarding waste management.

## SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

### 14.1 UN number.

Transportation is not dangerous.

### 14.2 UN proper shipping name.

Description:

ADR: Transportation is not dangerous.

IMDG: Transportation is not dangerous.

ICAO: Transportation is not dangerous.

### 14.3 Transport hazard class(es).

Transportation is not dangerous.

### 14.4 Packing group.

Transportation is not dangerous.

### 14.5 Environmental hazards.

Transportation is not dangerous.

### 14.6 Special precautions for user.

Transportation is not dangerous.

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.

Transportation is not dangerous.

## SECTION 15: REGULATORY INFORMATION.

### 15.1 Safety, health and environmental regulations/legislation specific for the substance.

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

-Continued on next page.-

# SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



## STRONTIUM OXALATE

**Version: 4**  
**Revision date: 18/01/2018**

**Page 8 of 8**  
**Print date: 18/01/2018**

The product is not affected by Directive 2012/18/EU (SEVESO III).  
The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.  
The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

### 15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## SECTION 16: OTHER INFORMATION.

Classification codes:

Acute Tox. 4 [Dermal] : Acute toxicity (Dermal), Category 4  
Acute Tox. 4 [Oral] : Acute toxicity (Oral), Category 4

Sections changed compared with the previous version:

1,2,3,8,14,16

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

CEN: European Committee for Standardization.  
PPE: Personal protection equipment.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.