

Creation Date 29-Nov-2010

Revision Date 18-Dec-2020

Revision Number 8

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identifier**

**Product Description:** Strontium nitrate  
**Cat No. :** 315170000; 315170025, 315171000; 315175000  
**CAS-No** 10042-76-9  
**EC-No.** 233-131-9  
**Molecular Formula** N2 O6 Sr

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

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

**Company** **UK entity/business name**  
 Fisher Scientific UK  
 Bishop Meadow Road, Loughborough,  
 Leicestershire LE11 5RG, United Kingdom

**EU entity/business name**  
 Acros Organics BVBA  
 Janssen Pharmaceuticaaan 3a  
 2440 Geel, Belgium

**E-mail address** begel.sdsdesk@thermofisher.com

**1.4. Emergency telephone number**

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

**SECTION 2: HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

**CLP Classification - Regulation (EC) No 1272/2008**

**Physical hazards**

Oxidizing solids Category 3 (H272)

**Health hazards**

Serious Eye Damage/Eye Irritation Category 1 (H318)

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## **Environmental hazards**

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

## **2.2. Label elements**



Signal Word

Danger

## **Hazard Statements**

H272 - May intensify fire; oxidizer

H318 - Causes serious eye damage

## **Precautionary Statements**

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P221 - Take any precaution to avoid mixing with combustibles

P371 + P380 + P375 - In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

## **2.3. Other hazards**

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment

Toxic to terrestrial vertebrates

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

### **3.1. Substances**

Component	CAS-No	EC-No.	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Strontium nitrate	10042-76-9	EEC No. 233-131-9	>95	Ox. Sol. 3 (H272) Eye Dam. 1 (H318)

Full text of Hazard Statements: see section 16

## **SECTION 4: FIRST AID MEASURES**

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## 4.1. Description of first aid measures

<b>General Advice</b>	If symptoms persist, call a physician.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Causes eye burns. Causes severe eye damage.

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

**Notes to Physician** Treat symptomatically.

## **SECTION 5: FIREFIGHTING MEASURES**

### 5.1. Extinguishing media

#### **Suitable Extinguishing Media**

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

#### **Extinguishing media which must not be used for safety reasons**

No information available.

### 5.2. Special hazards arising from the substance or mixture

Oxidizer: Contact with combustible/organic material may cause fire. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition. May ignite combustibles (wood paper, oil, clothing, etc.).

#### **Hazardous Combustion Products**

Nitrogen oxides (NO<sub>x</sub>).

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

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## 6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

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

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

## 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from clothing and other combustible materials.

#### **Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

**Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK)**  
(Germany)

Class 5.1B

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### **Exposure limits**

List source(s):

#### **Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### **Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

**Derived No Effect Level (DNEL)** See values below

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Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral Dermal Inhalation				1.2 mg/kg bw/d 40.1 mg/kg bw/d 7.9 mg/m <sup>3</sup>

**Predicted No Effect Concentration (PNEC)** No information available.

Fresh water	2.1 mg/l
Fresh water sediment	1811 mg/kg dw
Microorganisms in sewage treatment	4.2 mg/l
Soil (Agriculture)	332 mg/kg dw

## 8.2. Exposure controls

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

<b>Eye Protection</b>	Goggles (European standard - EN 166)
<b>Hand Protection</b>	Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Natural rubber	See manufacturers recommendations	-	EN 374	(minimum requirement)
Nitrile rubber				
Neoprene				
PVC				

**Skin and body protection** Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

**Respiratory Protection** No protective equipment is needed under normal use conditions.

**Large scale/emergency use** Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Small scale/Laboratory use** Maintain adequate ventilation

**Environmental exposure controls** No information available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

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<b>Physical State</b>	Solid Crystalline	
<b>Appearance</b>	White	
<b>Odor</b>	Odorless	
<b>Odor Threshold</b>	No data available	
<b>Melting Point/Range</b>	570 °C / 1058 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	645 °C / 1193 °F	
<b>Flammability (liquid)</b>	Not applicable	Solid
<b>Flammability (solid,gas)</b>	No information available	
<b>Explosion Limits</b>	No data available	
<b>Flash Point</b>	No information available	<b>Method -</b> No information available
<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	No data available	
<b>pH</b>	5.0-7.0	5% aq.sol
<b>Viscosity</b>	Not applicable	Solid
<b>Water Solubility</b>	709 g/L (20°C)	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Vapor Pressure</b>	No data available	
<b>Density / Specific Gravity</b>	2.98 g/cm3 @ 20C	
<b>Bulk Density</b>	No data available	
<b>Vapor Density</b>	Not applicable	Solid
<b>Particle characteristics</b>	No data available	

## 9.2. Other information

<b>Molecular Formula</b>	N2 O6 Sr
<b>Molecular Weight</b>	211.63
<b>Oxidizing Properties</b>	Oxidizer
<b>Evaporation Rate</b>	Not applicable - Solid

## SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity Yes

10.2. Chemical stability Oxidizer: Contact with combustible/organic material may cause fire.

### 10.3. Possibility of hazardous reactions

**Hazardous Polymerization** No information available.  
**Hazardous Reactions** None under normal processing.

### 10.4. Conditions to avoid

Avoid dust formation. Incompatible products. Combustible material. Excess heat.

### 10.5. Incompatible materials

Organic materials. Strong acids. Reducing Agent. Finely powdered metals. Strong reducing agents. Combustible material.

### 10.6. Hazardous decomposition products

Nitrogen oxides (NOx).

## SECTION 11: TOXICOLOGICAL INFORMATION

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## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

### Product Information

- (a) acute toxicity;
- Oral Based on available data, the classification criteria are not met
  - Dermal No data available
  - Inhalation No data available

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Strontium nitrate	LD50 = 2750 mg/kg ( Rat )	-	-

- (b) skin corrosion/irritation; No data available

- (c) serious eye damage/irritation; Category 1

- (d) respiratory or skin sensitization;
- Respiratory No data available
  - Skin No data available

- (e) germ cell mutagenicity; No data available

- (f) carcinogenicity; No data available  
There are no known carcinogenic chemicals in this product

- (g) reproductive toxicity; No data available

- (h) STOT-single exposure; No data available

- (i) STOT-repeated exposure; No data available  
Target Organs No information available.

- (j) aspiration hazard; Not applicable  
Solid

Symptoms / effects, both acute and delayed No information available.

## 11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**  
**Ecotoxicity effects** Do not empty into drains. .

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Component	Freshwater Fish	Water Flea	Freshwater Algae
Strontium nitrate	LC50 > 97 mg/L 96h, Cyprinus carpio (OECD Test Guideline 203)		EC50 = 104.7 mg/L 72h, Pseudokirchneriella subcapitata (OECD Test Guideline 201)

## 12.2. Persistence and degradability

### **Persistence**

Soluble in water, Persistence is unlikely, based on information available.

### **Degradability**

Not relevant for inorganic substances.

## 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

## 12.4. Mobility in soil

The product is water soluble, and may spread in water systems Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

## 12.5. Results of PBT and vPvB assessment

In accordance with Annex XIII of the REACH Regulation, inorganic substances do not require assessment.

## 12.6. Endocrine disrupting properties

### **Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

## 12.7. Other adverse effects

### **Persistent Organic Pollutant**

This product does not contain any known or suspected substance

### **Ozone Depletion Potential**

This product does not contain any known or suspected substance

## **SECTION 13: DISPOSAL CONSIDERATIONS**

## 13.1. Waste treatment methods

### **Waste from Residues/Unused Products**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

### **Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point.

### **European Waste Catalogue (EWC)**

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

### **Other Information**

Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not flush to sewer.

## **SECTION 14: TRANSPORT INFORMATION**

## IMDG/IMO

### 14.1. UN number

UN1507

### 14.2. UN proper shipping name

STRONTIUM NITRATE

### 14.3. Transport hazard class(es)

5.1

### 14.4. Packing group

III

## ADR

### 14.1. UN number

UN1507

### 14.2. UN proper shipping name

STRONTIUM NITRATE

### 14.3. Transport hazard class(es)

5.1

ACR31517



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**14.4. Packing group** III

## IATA

**14.1. UN number** UN1507  
**14.2. UN proper shipping name** STRONTIUM NITRATE  
**14.3. Transport hazard class(es)** 5.1  
**14.4. Packing group** III

**14.5. Environmental hazards** No hazards identified

**14.6. Special precautions for user** No special precautions required

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

X = listed, Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), China (IECSC), Japan (ENCS), Australia (AICS), Korea (ECL).

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	IECSC	AICS	KECL
Strontium nitrate	233-131-9	-		X	X	-	X	X	X	X	KE-3223 5

#### Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

#### National Regulations

**WGK Classification** See table for values

Component	Germany - Water Classification (VwVwS)	Germany - TA-Luft Class
Strontium nitrate	WGK1	

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

### 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

## SECTION 16: OTHER INFORMATION

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

H318 - Causes serious eye damage

H272 - May intensify fire; oxidizer

#### Legend

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**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** (volatile organic compound)

## Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

<b>Creation Date</b>	29-Nov-2010
<b>Revision Date</b>	18-Dec-2020
<b>Revision Summary</b>	Update to CLP Format.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006  
COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No  
1907/2006**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**