



# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 09/21/2015

Version 1.1

## SECTION 1. Identification

### Product identifier

Product number	107872
Product name	Strontium nitrate for analysis EMSURE®
CAS-No.	10042-76-9

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

Identified uses	Reagent for analysis
-----------------	----------------------

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

Company	EMD Millipore Corporation   290 Concord Road, Billerica, MA 01821, United States of America   General Inquiries: +1-978-715-4321   Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
---------	--

Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
---------------------	--

## SECTION 2. Hazards identification

### GHS Classification

Oxidizing solid, Category 1, H271  
Serious eye damage, Category 1, H318

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

### GHS-Labeling

*Hazard pictograms*



*Signal Word*

Danger

*Hazard Statements*

H271 May cause fire or explosion; strong oxidizer.  
H318 Causes serious eye damage.

*Precautionary Statements*

P210 Keep away from heat.

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

P220 Keep/Store away from clothing/ combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

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

P283 Wear fire/ flame resistant/ retardant clothing.

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

P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

P310 Immediately call a POISON CENTER or doctor/ physician.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

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

P501 Dispose of contents/ container to an approved waste disposal plant.

## Other hazards

None known.

---

## SECTION 3. Composition/information on ingredients

Formula	Sr(NO <sub>3</sub> ) <sub>2</sub>	N <sub>2</sub> O <sub>6</sub> Sr (Hill)
---------	-----------------------------------	---

Molar mass	211.63 g/mol
------------	--------------

### Hazardous ingredients

*Chemical Name (Concentration)*

CAS-No.

*Strontium nitrate (>= 90 % - <= 100 % )*

10042-76-9

Exact percentages are being withheld as a trade secret.

---

## SECTION 4. First aid measures

### Description of first-aid measures

*Inhalation*

After inhalation: fresh air.

*Skin contact*

After skin contact: wash off with plenty of water. Remove contaminated clothing.

*Eye contact*

After eye contact: rinse out with plenty of water.

*Ingestion*

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Never give anything by mouth to an unconscious person.

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

Irritation and corrosion, Nausea, Vomiting

Risk of serious damage to eyes.

The following applies to nitrites/nitrates in general: methemoglobinemia after the uptake of large quantities.

---

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

The following applies to strontium compounds in general: only slightly absorbable via the gastrointestinal tract.

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

No information available.

---

## SECTION 5. Fire-fighting measures

### Extinguishing media

#### *Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:

nitrous gases

### Advice for firefighters

#### *Special protective equipment for fire-fighters*

In the event of fire, wear self-contained breathing apparatus.

#### *Further information*

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation of dusts; do not inhale dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

### Environmental precautions

Do not empty into drains.

### Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

---

## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Away from combustible materials and sources of ignition and heat.

---

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

Store at +5°C to +30°C (+41°F to +86°F).

---

## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

Contains no substances with occupational exposure limit values.

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

### *Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

### *Eye/face protection*

Safety glasses

### *Hand protection*

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

### *Respiratory protection*

required when dusts are generated.

---

## SECTION 9. Physical and chemical properties

Physical state	solid
Color	white
Odor	odorless
Odor Threshold	No information available.
pH	ca. 5 - 7 at 50 g/l 20 °C (20 °C)
Melting point	570 °C
Boiling point/boiling range	645 °C (645 °C)
Flash point	No information available.
Evaporation rate	No information available.

---

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.
Density	2.986 g/cm <sup>3</sup> at 20 °C (20 °C)
Relative density	No information available.
Water solubility	660 g/l at 20 °C (20 °C)
Partition coefficient: n-octanol/water	log Pow: 0.19 (calculated) (Lit.) Bioaccumulation is not expected.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	The substance or mixture is classified as oxidizing with the category 1.
Bulk density	ca. 1,000 kg/m <sup>3</sup>

---

## SECTION 10. Stability and reactivity

### Reactivity

polymerizable

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

combustible substances, Powdered metals, sulfur, oxidizable substances, Polyvinyl chloride

Violent reactions possible with:

### Conditions to avoid

no information available

### Incompatible materials

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

no information available

## **Hazardous decomposition products**

in the event of fire: See section 5.

---

## **SECTION 11. Toxicological information**

### **Information on toxicological effects**

#### *Likely route of exposure*

Eye contact, Skin contact, Ingestion

#### *Acute oral toxicity*

LD50 Rat: > 2,000 mg/kg

OECD Test Guideline 423

Symptoms: After uptake of large quantities: Nausea, Vomiting

#### *Acute inhalation toxicity*

LC50 Rat: > 4.5 mg/l; 4 h ; dust/mist

OECD Test Guideline 403

Symptoms: Possible damages: mucosal irritations

#### *Skin irritation*

In vitro study

Result: No skin irritation

Human Skin Model Test

#### *Eye irritation*

Rabbit

Result: Irreversible effects on the eye

OECD Test Guideline 405

Causes serious eye damage.

#### *Sensitization*

Maximization Test (GPMT) Guinea pig

Result: Does not cause skin sensitization.

Method: OECD Test Guideline 406

The value is given in analogy to the following substances: strontium chloride hexahydrate

#### *Genotoxicity in vitro*

In vitro mammalian cell gene mutation test

MOUSE LYMPHOMA TEST

Result: negative

Method: OECD Test Guideline 476

Mutagenicity (mammal cell test): chromosome aberration.

Human lymphocytes

Result: negative

Method: OECD Test Guideline 405

#### *Specific target organ systemic toxicity - single exposure*

The substance or mixture is not classified as specific target organ toxicant, single exposure.

---

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

### *Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### *Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

## **Carcinogenicity**

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

## **Further information**

Other information

The following applies to strontium compounds in general: only slightly absorbable via the gastrointestinal tract.

The following applies to nitrites/nitrates in general: methemoglobinemia after the uptake of large quantities.

Further data:

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

---

## **SECTION 12. Ecological information**

### **Ecotoxicity**

#### *Toxicity to fish*

static test LC50 *Cyprinus carpio* (Carp): > 97.5 mg/l; 96 h

Analytical monitoring: yes

OECD Test Guideline 203

#### *Toxicity to daphnia and other aquatic invertebrates*

static test LC50 *Daphnia magna* (Water flea): 125 mg/l; 48 h (ECHA)

#### *Toxicity to algae*

static test ErC50 *Pseudokirchneriella subcapitata* (green algae): > 104.7 mg/l; 72 h

Analytical monitoring: yes

OECD Test Guideline 201

#### *Toxicity to bacteria*

static test EC50 activated sludge: > 100 mg/l; 3 h

OECD Test Guideline 209

# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

### *Toxicity to fish (Chronic toxicity)*

flow-through test NOEC Danio rerio (zebra fish):  $\geq$  100 mg/l; 34 d

Analytical monitoring: yes

OECD Test Guideline 210

### *Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)*

semi-static test NOEC Daphnia magna (Water flea): 21 mg/l; 21 d

OECD Test Guideline 211

## **Persistence and degradability**

### *Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

## **Bioaccumulative potential**

*Partition coefficient: n-octanol/water*

log Pow: 0.19

(calculated)

(Lit.) Bioaccumulation is not expected.

## **Mobility in soil**

No information available.

### *Additional ecological information*

We have no quantitative data concerning the ecological effects of this product.

Biological effects:

Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of drinking- water supplies.

Hazard for drinking water supplies.

Further information on ecology

Discharge into the environment must be avoided.

---

## **SECTION 13. Disposal considerations**

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

---

## **SECTION 14. Transport information**

### **Land transport (DOT)**

UN number

UN 1507

Proper shipping name

STRONTIUM NITRATE

Class

5.1

Packing group

III

Environmentally hazardous

--

### **Air transport (IATA)**

SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 107872  
Product name Strontium nitrate for analysis EMSURE®

Version 1.1

UN number UN 1507  
Proper shipping name STRONTIUM NITRATE  
Class 5.1  
Packing group III  
Environmentally hazardous --  
Special precautions for user no

Sea transport (IMDG)

UN number UN 1507  
Proper shipping name STRONTIUM NITRATE  
Class 5.1  
Packing group III  
Environmentally hazardous --  
Special precautions for user yes  
EmS F-A S-Q

SECTION 15. Regulatory information

United States of America

SARA 313

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

Ingredients

Strontium nitrate	10042-76-9	100 %
-------------------	------------	-------

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know

Ingredients

Strontium nitrate

Pennsylvania Right To Know

Ingredients

Strontium nitrate

New Jersey Right To Know

SAFETY DATA SHEET  
according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 107872  
Product name Strontium nitrate for analysis EMSURE®

Version 1.1

*Ingredients*

Strontium nitrate

**California Prop 65 Components**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**Notification status**

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

---

**SECTION 16. Other information**

**Training advice**

Provide adequate information, instruction and training for operators.

**Labeling**

*Hazard pictograms*



*Signal Word*

Danger

*Hazard Statements*

H271 May cause fire or explosion; strong oxidizer.

H318 Causes serious eye damage.

*Precautionary Statements*

Prevention

P210 Keep away from heat.

P221 Take any precaution to avoid mixing with combustibles, heavy-metal compounds, acids and alkalis.

P280 Wear eye protection.

Response

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

P313 Get medical advice/ attention.

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

H271 May cause fire or explosion; strong oxidizer.

H318 Causes serious eye damage.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number

107872

Version 1.1

Product name

Strontium nitrate for analysis EMSURE®

---

Revision Date 09/21/2015

---

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

*All rights reserved. Millipore and the "M" Mark are registered trademarks of Merck KGaA, Darmstadt, Germany.*