

Printing date 07/20/2021

Reviewed on 07/20/2021

## 1 Identification

- **Product name**
- **Trade name:** Silver nitrite, 99%
- **Item number:** 93-4719
- **CAS Number:**  
7783-99-5
- **EC number:**  
232-041-7
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Strem Chemicals, Inc.  
7 Mulliken Way  
NEWBURYPORT, MA 01950  
USA  
info@strem.com
- **Information department:** Technical Department
- **Emergency telephone number:**  
EMERGENCY: CHEMTREC: + 1 (800) 424-9300  
During normal opening times: +1 (978) 499-1600

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS03 Flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidizer.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS03



GHS07

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

silver nitrite

- **Hazard statements**

H272 May intensify fire; oxidizer.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

(Contd. on page 2)

**Safety Data Sheet**  
according to OSHA HCS

Printing date 07/20/2021

Reviewed on 07/20/2021

**Trade name: Silver nitrite, 99%**

(Contd. of page 1)

H335 May cause respiratory irritation.

**Precautionary statements**

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P221 Take any precaution to avoid mixing with combustibles.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P410+P403 Protect from sunlight. Store in a well-ventilated place.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

**NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 3  
Reactivity = 0

The substance possesses oxidizing properties.

**HMIS-ratings (scale 0 - 4)**



Health = 1  
Fire = 3  
Reactivity = 0

**Other hazards**

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**3 Composition/information on ingredients**

**Chemical characterization: Substances**

**CAS No. Description**

7783-99-5 silver nitrite

**Identification number(s)**

**EC number:** 232-041-7

**4 First-aid measures**

**Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**  
Most important symptoms and effects, both acute and delayed No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

US

(Contd. on page 3)

**Safety Data Sheet**  
according to OSHA HCS

Printing date 07/20/2021

Reviewed on 07/20/2021

Trade name: Silver nitrite, 99%

(Contd. of page 2)

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

0.043 mg/m<sup>3</sup>

· **PAC-2:**

0.46 mg/m<sup>3</sup>

· **PAC-3:**

2.8 mg/m<sup>3</sup>

**7 Handling and storage**

- **Handling:**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.

(Contd. on page 4)

Printing date 07/20/2021

Reviewed on 07/20/2021

**Trade name: Silver nitrite, 99%**

(Contd. of page 3)

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**7783-99-5 silver nitrite**

PEL	Long-term value: 0.01 mg/m <sup>3</sup> as Ag
REL	Long-term value: 0.01 mg/m <sup>3</sup> as Ag
TLV	Long-term value: 0.01 mg/m <sup>3</sup> as Ag

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

· **Breathing equipment:** A NIOSH approved respirator in accordance with 29 CFR 1910.134.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Powder
Color:	Whitish
Odor:	Odorless
Odor threshold:	Not determined.

(Contd. on page 5)

**Safety Data Sheet**  
according to OSHA HCS

Printing date 07/20/2021

Reviewed on 07/20/2021

**Trade name: Silver nitrite, 99%**

(Contd. of page 4)

· <b>pH-value:</b>	Not applicable.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	140 °C (284 °F)
<b>Boiling point/Boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Not determined.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	4.453 g/cm <sup>3</sup> (37.16029 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Insoluble.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>VOC content:</b>	0.0 g/l / 0.00 lb/gl
<b>Solids content:</b>	100.0 %
· <b>Other information</b>	No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

(Contd. on page 6)

**Safety Data Sheet**  
according to OSHA HCS

Printing date 07/20/2021

Reviewed on 07/20/2021

**Trade name: Silver nitrite, 99%**

(Contd. of page 5)

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **NTP (National Toxicology Program)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

**12 Ecological information**

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· **UN-Number**

· **DOT, IMDG, IATA**

UN2627

· **UN proper shipping name**

· **DOT**

Nitrites, inorganic, n.o.s.

(Contd. on page 7)

Printing date 07/20/2021

Reviewed on 07/20/2021

**Trade name: Silver nitrite, 99%**

(Contd. of page 6)

· **IMDG, IATA**

**NITRITES, INORGANIC, N.O.S.**

· **Transport hazard class(es)**

· **DOT**



· **Class**

5.1 Oxidizing substances

· **Label**

5.1

· **IMDG, IATA**



· **Class**

5.1 Oxidizing substances

· **Label**

5.1

· **Packing group**

· **DOT, IMDG, IATA**

II

· **Environmental hazards:**

· **Marine pollutant:**

No

· **Special precautions for user**

Not applicable.

· **EMS Number:**

F-A,S-Q

· **Segregation groups**

Nitrites and their mixtures

· **Stowage Category**

A

· **Segregation Code**

SG38 Stow "separated from" ammonium compounds.

SG49 Stow "separated from" cyanides

SG62 Stow "separated from" sulphur

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 5 kg

On cargo aircraft only: 25 kg

· **IMDG**

· **Limited quantities (LQ)**

1 kg

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

· **UN "Model Regulation":**

UN 2627 NITRITES, INORGANIC, N.O.S., 5.1, II

(Contd. on page 8)

**Safety Data Sheet**  
according to OSHA HCS

Printing date 07/20/2021

Reviewed on 07/20/2021

**Trade name: Silver nitrite, 99%**

(Contd. of page 7)

**15 Regulatory information**

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

Substance is listed.

· **TSCA (Toxic Substances Control Act):**

Substance is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for females:**

Substance is not listed.

· **Chemicals known to cause reproductive toxicity for males:**

Substance is not listed.

· **Chemicals known to cause developmental toxicity:**

Substance is not listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

Substance is not listed.

· **TLV (Threshold Limit Value established by ACGIH)**

Substance is not listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

Substance is not listed.

· **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS03 GHS07

· **Signal word Danger**

· **Hazard-determining components of labeling:**

silver nitrite

· **Hazard statements**

H272 May intensify fire; oxidizer.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P221 Take any precaution to avoid mixing with combustibles.

(Contd. on page 9)



**Safety Data Sheet**  
according to OSHA HCS

Printing date 07/20/2021

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**Trade name: Silver nitrite, 99%**

(Contd. of page 8)

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P410+P403 Protect from sunlight. Store in a well-ventilated place.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Department issuing SDS:** Technical Department.
- **Contact:** Technical Director
- **Date of preparation / last revision** 07/20/2021 / -
- **Abbreviations and acronyms:**  
 ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 ACGIH: American Conference of Governmental Industrial Hygienists  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 VOC: Volatile Organic Compounds (USA, EU)  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 NIOSH: National Institute for Occupational Safety  
 OSHA: Occupational Safety & Health  
 TLV: Threshold Limit Value  
 PEL: Permissible Exposure Limit  
 REL: Recommended Exposure Limit  
 Ox. Sol. 2: Oxidizing solids – Category 2  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3