1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : SILVER NITRATE
Product code : 32215
Identification of the product : silver nitrate
CAS No : 7761-88-8
EC No : 231-853-9
Annex No : 047-001-00-2

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

Use : Laboratory. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : BIOCHEM CHEMOPHARMA France
82 AV du 85ème de ligne 58200 Cosne Sur Loire
FRANCE
Tel : +33 3 86.27.24.96

1.4. Emergency telephone number

Phone nr : +33 3.86.27.24.96 (9:00am – 4:15pm)

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : C; R34
N; R50-53

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Environmental hazards : Hazardous to the aquatic environment - Acute hazard - Category 1 - Warning (CLP : Aquatic Acute 1) H400

2.2. Label elements

Labelling EC 67/548 or EC 1999/45
2. Hazards identification -DSD (continued)

Symbol(s)

Symbol(s)

: O : Oxidizing
C : Corrosive
N : Dangerous for the environment

R Phrase(s)

: R34 : Causes burns.
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrase(s)

: S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
S60 : This material and its container must be disposed of as hazardous waste.
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains

: silver nitrate

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms

Signal words

: Warning

Hazard statements

: H400 : Very toxic to aquatic life.

Precautionary statements

• Prevention

: P273: Avoid release to the environment.

• Response

: P391: Collect spillage.

• Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Contains

: silver nitrate

2.3. Other hazards

Other hazards

: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.
3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance / Preparation</th>
<th>Contents</th>
<th>CAS No</th>
<th>EC No</th>
<th>Annex No</th>
<th>REACH Ref.</th>
<th>Classification</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>silver nitrate</td>
<td>100 %</td>
<td>7761-88-8</td>
<td>231-853-9</td>
<td>047-001-00-2</td>
<td>----</td>
<td>C; R34, N; R50-53</td>
<td>silver nitrate</td>
</tr>
</tbody>
</table>

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

Inhalation : Assure fresh air breathing. Allow the victim to rest.
Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
Ingestion : Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.

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

Symptoms relating to use : Not expected to present a significant hazard under anticipated conditions of normal use.

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

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam, Dry powder, Carbon dioxide, Water spray, Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.
Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
5. Fire-fighting measures (continued)

5.3. Advice for fire-fighters

Protection against fire: Do not enter fire area without proper protective equipment, including respiratory protection.

Special procedures: Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders: Equip cleanup crew with proper protection. Ventilate area.

For non-emergency personnel: Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions: Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Clean up methods: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Store away from other materials. Collect spillage.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

Handling: Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

Technical protective measures: Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

7. Handling and storage (continued)

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection

8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.
• Respiratory protection : Wear approved mask.
• Hand protection : Wear protective gloves.
• Eye protection : Chemical goggles or safety glasses.
• Others : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20 °C : Solid.
Colour : White crystalline
Odour : Odorless
Odour threshold : No data available.
pH value : No data available.
Melting point [°C] : 212 °C
Decomposition point [°C] : N/A
Critical temperature [°C] : N/A
Auto-ignition temperature [°C] : N/A
Flammability (solid, gas) : N/A
Flash point [°C] : N/A
Boiling point [°C] : 440 °C
Initial boiling point [°C] : N/A
Final boiling point [°C] : N/A
Evaporation rate : N/A
Vapour pressure [20°C] : N/A
Vapour pressure mm/Hg : N/A
9. Physical and chemical properties (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour density</td>
<td>4.4</td>
</tr>
<tr>
<td>Density [g/cm^3]</td>
<td>4.352</td>
</tr>
<tr>
<td>Relative density, gas (air=1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Relative density, liquid (water=1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in water [% weight]</td>
<td>219g/100g water @ 20</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>N/A</td>
</tr>
<tr>
<td>Log Pow octanol / water at 20°C</td>
<td>No data available.</td>
</tr>
<tr>
<td>Viscosity at 40°C [mm^2/s]</td>
<td>N/A</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive properties</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosion limits - upper [%]</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosion limits - lower [%]</td>
<td>N/A</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity
• Inhalation: Based on available data, the classification criteria are not met.
• Dermal: Based on available data, the classification criteria are not met.
• Ingestion: Based on available data, the classification criteria are not met.
Corrosion: Based on available data, the classification criteria are not met.
Irritation: Based on available data, the classification criteria are not met.
Sensitization: Based on available data, the classification criteria are not met.
Mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Toxic for reproduction: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

12. Ecological information

12.1. Toxicity

Toxicity information: Very toxic to aquatic life.

12.2. Persistence - degradability

Persistence - degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: Not established.

12.4. Mobility in soil

Mobility in soil: Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions: Avoid release to the environment.
13. Disposal considerations

13.1. Waste treatment methods

General: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name: SILVER NITRATE
UN N°: 1493
H.I. nr: 50
ADR - Class: 5.1
Labelling - Transport: 5.1 : Oxidizing substances.

ADR - Classification code: O2
ADR - Group: II
ADR - Packing instructions: P002
ADR - Limited Quantity: 1 KG
ADR - Tunnel code: E : Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name: SILVER NITRATE
UN N°: 1493
IMO-IMDG - Class or division: 5.1 : Oxidizing substances.
IMO-IMDG - Packing group: II
IMO-IMDG - Packing instructions: P002
IMO-IMDG - Limited quantities: 1 kg
IMO-IMDG - Marine pollution: Yes
EMS-Nr: F-A S-Q

BIOCHEM CHEMOPHARMA France
82 AV du 85eme de ligne 58200 Cosne Sur Loire FRANCE
Tel : +33 386272496
14. Transport information (continued)

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : SILVER NITRATE
UN N° : 1493
IATA - Class or division : 5.1 : Oxidizing substances.
IATA - Packing group : II
IATA - Passenger and Cargo Aircraft : ALLOWED
   - Passenger and Cargo - Packing instruction
     - Passenger and Cargo - Maximum Quantity/Packing : 5 kg
IATA - Cargo only : ALLOWED
   - Cargo only - Packing instruction : 562
   - Cargo only - Maximum Quantity/Packing : 25 kg
IATA - Limited Quantities : 2.5 kg
ERG-Nr : 5L

15. Regulatory information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII : The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV : The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment : It has not been carried out.

16. Other information

Revision : Revision - See : *
Abbreviations and acronyms : PBT: persistent, bioaccumulative and toxic.
   vPvB: very persistent and very bioaccumulative
16. Other information (continued)

List of relevant R phrases (heading 3):
- R34 : Causes burns.
- R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

List of full text of H-statements in section 3:
- H400 : Very toxic to aquatic life.

Further information:
None.

In accordance with REACH Regulation (CE) Nº 1907/2006 and with CLP Regulation (CE) Nº 1272/2008

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