

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
:
EC Index-No. : 047-001-00-2
EC-No. : 231-853-9
CAS-No. : 7761-88-8
Product code : 05742

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

SPAN LAB
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)
401208 Mumbai - INDIA
PH: +91 9820509929
info@spanlab.in www.spanlab.in

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Oxidising Solids, H272
Category 2
Skin corrosion/irritation, H314
Category 1
Hazardous to the aquatic H410
environment — Chronic
Hazard, Category 1

Full text of H statements : see section 16

SILVER NITRATE AR/ACS

Safety Data Sheet

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

O; R8

C; R34

N; R50/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS03

GHS05

GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H272 - May intensify fire; oxidiser.
H314 - Causes severe skin burns and eye damage.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P220 - Keep/Store away from clothing and other combustible materials.
P273 - Avoid release to the environment.
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.
P310 - Immediately call a POISON CENTER/doctor
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : SILVER NITRATE AR/ACS
CAS-No. : 7761-88-8
EC-No. : 231-853-9
EC Index-No. : 047-001-00-2

Full text of R- and H-statements: see section 16

3.2. Mixtures

Not applicable

SILVER NITRATE AR/ACS

Safety Data Sheet

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Gently wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

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

- Symptoms/effects : Causes severe skin burns and eye damage.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : May intensify fire; oxidiser.
- Explosion hazard : Heating may cause a fire or explosion.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.
- Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Clear up rapidly by scoop or vacuum.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not get in eyes, on skin, or on clothing.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in original container. Keep container tightly closed. Store in a well-ventilated place. Keep cool.

SILVER NITRATE AR/ACS

Safety Data Sheet

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

| | |
|--------------------------|--------------------------------------|
| Hand protection | : protective gloves |
| Eye protection | : Chemical goggles or safety glasses |
| Skin and body protection | : Wear suitable protective clothing |
| Respiratory protection | : Wear respiratory protection. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|-----------------------------|
| Physical state | : Solid |
| Molecular mass | : 169.87 g/mol |
| Colour | : White crystalline. |
| Odour | : odourless. |
| Odour threshold | : No data available |
| pH | : 6 |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : 212 °C |
| Freezing point | : No data available |
| Boiling point | : 440 °C |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : 4.4 |
| Relative density | : No data available |
| Density | : 4.352 g/cm ³ |
| Solubility | : Water: 219 g/100ml @ 200C |
| Log Pow | : 5 |

SILVER NITRATE AR/ACS

Safety Data Sheet

| | |
|----------------------|---|
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : The substance or mixture is classified as oxidizing with the subcategory 2. |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

May cause or intensify fire; oxidiser.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Overheating.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|-----------------------------------|---|
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Causes severe skin burns and eye damage. pH: 6 |
| Serious eye damage/irritation | : Serious eye damage, category 1, implicit pH: 6 |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |

SILVER NITRATE AR/ACS

Safety Data Sheet

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

SILVER NITRATE AR/ACS (7761-88-8)

| | |
|---------|---|
| Log Pow | 5 |
|---------|---|

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|--------|
| UN-No. (ADR) | : 1493 |
| UN-No. (IMDG) | : 1493 |
| UN-No. (IATA) | : 1493 |
| UN-No. (ADN) | : 1493 |
| UN-No. (RID) | : 1493 |

14.2. UN proper shipping name

| | |
|---------------------------------------|---|
| Proper Shipping Name (ADR) | : SILVER NITRATE |
| Proper Shipping Name (IMDG) | : SILVER NITRATE |
| Proper Shipping Name (IATA) | : Silver nitrate |
| Proper Shipping Name (ADN) | : SILVER NITRATE |
| Proper Shipping Name (RID) | : SILVER NITRATE |
| Transport document description (ADR) | : UN 1493 SILVER NITRATE, 5.1, II, (E), ENVIRONMENTALLY HAZARDOUS |
| Transport document description (IMDG) | : UN 1493 SILVER NITRATE, 5.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS |

SILVER NITRATE AR/ACS

Safety Data Sheet

Transport document description (IATA) : UN 1493 Silver nitrate, 5.1, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN) : UN 1493 SILVER NITRATE, 5.1, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID) : UN 1493 SILVER NITRATE, 5.1, II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 5.1

Danger labels (ADR) : 5.1



IMDG

Transport hazard class(es) (IMDG) : 5.1

Danger labels (IMDG) : 5.1



IATA

Transport hazard class(es) (IATA) : 5.1

Hazard labels (IATA) : 5.1



ADN

Transport hazard class(es) (ADN) : 5.1

Danger labels (ADN) : 5.1



RID

Transport hazard class(es) (RID) : 5.1

Danger labels (RID) : 5.1



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

SILVER NITRATE AR/ACS

Safety Data Sheet

| | |
|----------------------|------|
| Packing group (IATA) | : II |
| Packing group (ADN) | : II |
| Packing group (RID) | : II |

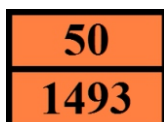
14.5. Environmental hazards

| | |
|-------------------------------|--|
| Dangerous for the environment | : Yes |
| Marine pollutant | : Yes |
| Other information | : No supplementary information available |

14.6. Special precautions for user

- Overland transport

| | |
|---|----------------------|
| Classification code (ADR) | : O2 |
| Limited quantities (ADR) | : 1kg |
| Excepted quantities (ADR) | : E2 |
| Packing instructions (ADR) | : P002, IBC08 |
| Special packing provisions (ADR) | : B4 |
| Mixed packing provisions (ADR) | : MP10 |
| Portable tank and bulk container instructions (ADR) | : T3 |
| Portable tank and bulk container special provisions (ADR) | : TP33 |
| Tank code (ADR) | : SGAV |
| Tank special provisions (ADR) | : TU3 |
| Vehicle for tank carriage | : AT |
| Transport category (ADR) | : 2 |
| Special provisions for carriage - Packages (ADR) | : V11 |
| Special provisions for carriage - Bulk (ADR) | : VC1, VC2, AP6, AP7 |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV24 |
| Hazard identification number (Kemler No.) | : 50 |
| Orange plates | : |



| | |
|-------------------------------|------|
| Tunnel restriction code (ADR) | : E |
| EAC code | : 1Y |

- Transport by sea

| | |
|---------------------------------|----------|
| Limited quantities (IMDG) | : 1 kg |
| Excepted quantities (IMDG) | : E2 |
| Packing instructions (IMDG) | : P002 |
| IBC packing instructions (IMDG) | : IBC08 |
| IBC special provisions (IMDG) | : B2, B4 |
| Tank instructions (IMDG) | : T3 |
| Tank special provisions (IMDG) | : TP33 |
| EmS-No. (Fire) | : F-A |
| EmS-No. (Spillage) | : S-Q |
| Stowage category (IMDG) | : A |
| MFAG-No | : 140 |

- Air transport

| | |
|--------------------------------|--------|
| PCA Excepted quantities (IATA) | : E2 |
| PCA Limited quantities (IATA) | : Y544 |

SILVER NITRATE AR/ACS

Safety Data Sheet

| | |
|--|---------|
| PCA limited quantity max net quantity (IATA) | : 2.5kg |
| PCA packing instructions (IATA) | : 558 |
| PCA max net quantity (IATA) | : 5kg |
| CAO packing instructions (IATA) | : 562 |
| CAO max net quantity (IATA) | : 25kg |
| ERG code (IATA) | : 5L |

- Inland waterway transport

| | |
|-----------------------------------|--------|
| Classification code (ADN) | : O2 |
| Limited quantities (ADN) | : 1 kg |
| Excepted quantities (ADN) | : E2 |
| Equipment required (ADN) | : PP |
| Number of blue cones/lights (ADN) | : 0 |

- Rail transport

| | |
|---|----------------------|
| Classification code (RID) | : O2 |
| Limited quantities (RID) | : 1kg |
| Excepted quantities (RID) | : E2 |
| Packing instructions (RID) | : P002, IBC08 |
| Special packing provisions (RID) | : B4 |
| Mixed packing provisions (RID) | : MP10 |
| Portable tank and bulk container instructions (RID) | : T3 |
| Portable tank and bulk container special provisions (RID) | : TP33 |
| Tank codes for RID tanks (RID) | : SGAV |
| Special provisions for RID tanks (RID) | : TU3 |
| Transport category (RID) | : 2 |
| Special provisions for carriage – Packages (RID) | : W11 |
| Special provisions for carriage – Bulk (RID) | : VC1, VC2, AP6, AP7 |
| Special provisions for carriage - Loading, unloading and handling (RID) | : CW24 |
| Colis express (express parcels) (RID) | : CE10 |
| Hazard identification number (RID) | : 50 |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

SILVER NITRATE AR/ACS is not on the REACH Candidate List

SILVER NITRATE AR/ACS is not on the REACH Annex XIV List

15.1.2. National regulations

SILVER NITRATE AR/ACS

Safety Data Sheet

Germany

Reference to AwSV : Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV; ID No. 185)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-statements:

| | |
|-------------------|---|
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Ox. Sol. 2 | Oxidising Solids, Category 2 |
| Skin Corr. 1 | Skin corrosion/irritation, Category 1 |
| H272 | May intensify fire; oxidiser. |
| H314 | Causes severe skin burns and eye damage. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| R34 | Causes burns |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment |
| R8 | Contact with combustible material may cause fire |
| C | Corrosive |
| N | Dangerous for the environment |
| O | Oxidising |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.