SILVER NITRATE 0,1 mol/l

Date 4.3.2022 Previous date: 5.12.2017

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

1.1.1 Commercial Product Name

SILVER NITRATE 0,1 mol/l

1.1.2 Product code

FF061 1 L; FF063 20 L; FF711 5 L; FF598 10 L; FF6158 500 ML
UFI J850-A0M0-8004-6J54

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

1.2.1 Recommended use

Laboratory chemical

1.3 Details of the supplier of the safety data sheet

1.3.1 Supplier

	Oy FF-Chemicals Ab
Street address	Teollisuustie 4
Postcode and post office	FI-90830 HAUKIPUDAS
	Finland
Telephone	+358 8 5563 193
Telefax	+358 8 5563 194
Business ID	05851808
Email	ffc@ff-chemicals.fi

1.4 Emergency telephone number

1.4.1 Telephone number, name and address

Please contact the Emergency Centre in your own country.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

1272/2008 (CLP)

Eye Irrit. 2, H319
Skin Irrit. 2, H315

2.2 Label elements

1272/2008 (CLP)

GHS07

Signal word **Warning**

Hazard Statements

H319 Causes serious eye irritation.
H315 Causes skin irritation.

Precautionary Statements

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.
P501 Dispose of contents/container as hazardous waste.

2.3 Other hazards

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

CAS/EC and Reg.number	EINECS	Chemical name of the substance	Concentration	Classification
7761-88-8	231-853-9	Silver nitrate	1,7 %	Ox. Sol. 2, H272; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

3.3 Other information
The full text of hazard statements are given in chapter 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures
Remove patient from exposure. Take off contaminated clothing.

4.1.2 Inhalation
Move into fresh air.

4.1.3 Skin contact
Wash with plenty of soap and water.

4.1.4 Eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4.1.5 Ingestion
Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician.

4.2 Most important symptoms and effects, both acute and delayed
Causes serious eye irritation. Causes skin irritation.

4.3 Indication of immediate medical attention and special treatment needed
IF exposed or concerned: Get medical advice/attention.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

5.1.1 Suitable extinguishing media
Choose extinguishing media suitable for surrounding materials.

5.2 Special hazards arising from the substance or mixture
May form hazardous fumes in case of fire.

5.3 Advice for firefighters
Wear chemical protective suit and pressurized respirator.

5.4 Specific methods
Prevent discharges of extinguishing water in sewers or surface and ground water.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Evacuate the contaminated area. Wear personal protective equipment. Prevent discharging of vapour and mist in workplace air. Avoid inhaling the product. Avoid contact with eyes, skin and clothing. Use fume hood or and personal protection equipment.

6.2 Environmental precautions
Prevent flowing into sewers.

6.3 Methods and materials for containment and cleaning up
Absorb in suitable absorption material and collect for disposal. Clean surfaces and ventilate the area.

6.4 Reference to other sections
4, 8, 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Handle with good practice and according to safety instructions. Ensure adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed. Protect from light. Store at room temperature.

7.3 Specific end use(s)
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Threshold limits

Silver nitrate	0,01 mg/m^3 (8 h) Ag	0,03 mg/m^3 (15 min)

8.1.2 Other information on limit values
Finnish limit values above.

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Handle with good practice and according to safety instructions. Ensure adequate ventilation. Use an effective exhaust equipment or in laboratory a fume cabin. Take off contaminated clothing, clean before reuse. Wash hands after working.

8.2.2 Individual protection measures

8.2.2.1 Respiratory protection
Respiratory protection when vapours or mist may be discharged in work place air.

8.2.2.2 Hand protection
Protective gloves. Material e.g. nitrile rubber.

8.2.2.3 Eye/face protection
Goggles (European standard - EN 166).

8.2.2.4 Skin protection
Laboratory coat, long sleeves.

8.2.3 Environmental exposure controls
Prevent entry into drains, sewers, soil or watercourses.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Important Health Safety and Environmental Information

9.1.1 Appearance
Liquid, clear

9.1.2	**Odour**	Odourless
9.1.3	**Odour threshold**	N/A
9.1.4	**pH**	N/A
9.1.5	**Melting point/freezing point**	~0 °C
9.1.6	**Initial boiling point and boiling range**	~100 °C
9.1.7	**Flash point**	N/A
9.1.8	**Evaporation rate**	N/A
9.1.9	**Flammability (solid, gas)**	-
9.1.10	**Explosive properties**	
9.1.10.1	**Lower explosion limit**	N/A
9.1.10.2	**Upper explosion limit**	N/A
9.1.11	**Vapour pressure**	N/A
9.1.12	**Vapour density**	N/A
9.1.13	**Relative density**	N/A
9.1.14	**Solubility(ies)**	
9.1.14.1	**Water solubility**	Soluble in water.
9.1.14.2	**Fat solubility (solvent - oil to be specified)**	N/A
9.1.15	**Partition coefficient: n-octanol/water**	N/A
9.1.16	**Auto-ignition temperature**	N/A
9.1.17	**Decomposition temperature**	N/A
9.1.18	**Viscosity**	N/A

9.1.19 Explosive properties N/A

9.1.20 Oxidising properties N/A

9.2 Other information

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10. STABILITY AND REACTIVITY

10.1 Reactivity
Stable in normal conditions.

10.2 Chemical stability
Stable in normal conditions.

10.3 Possibility of hazardous reactions
Not reported when storaged and handled according to regulations.

10.4 Conditions to avoid
Excess heat.

10.5 Incompatible materials
No information available.

10.6 Hazardous decomposition products
No information available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Acute toxicity
Not classified.
Silver nitrate: LD_{50} > 2000 mg/kg (oral, rat)

11.1.2 Irritation and corrosion
Causes skin irritation. Causes serious eye irritation.

11.1.3 Sensitisation
Not classified.

11.1.4 Subacute, subchronic and prolonged toxicity
Not classified.

11.1.5 STOT-single exposure
Not classified.

11.1.6 STOT-repeated exposure
Not classified.

11.1.7 Aspiration hazard
Not classified.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.1.1 Aquatic toxicity
Not classified.
Silver ions:
Fish: LC_{50} (96h) = 1.2 µg soluble Ag/l
Daphnia: EC_{50} (48h) = 0,22 soluble Ag µg/l

12.2 Persistence and degradability

12.2.1 Biodegradation
Not applicable.

12.3 Bioaccumulative potential
Silver nitrate:
BCF = 120

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
Not applicable.

12.6 Other adverse effects
Prevent entry into drains, sewers, soil or watercourses.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose as hazardous waste. Obey local and national regulations.
HP 4 Irritant

14. TRANSPORT INFORMATION

14.1	**UN number**	-
14.2	**UN proper shipping name**	-
14.3	**Transport hazard class(es)**	-
14.4	**Packing group**	-
14.5	**Environmental hazards**	-

14.6 Special precautions for users
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14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH regulation
CLP regulation
Finnish TLV values

15.2 Chemical safety assessment
Chemical Safety Assessment/Reports (CSA/CSR) is nor available for this substance.

16. OTHER INFORMATION

16.1 Additions, Deletions, Revisions
General revision.

16.3 Key literature references and sources for data
ECHA C&L Inventory
Finnish TLV values

16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements

H272	May intensify fire; oxidiser.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6 Training advice
Handling of hazardous chemicals.

16.8 Additional information available from:

Oy FF-Chemicals Ab, Finland, tel. +358 8 5563 193
ffc@ff-chemicals.fi

The information in this safety data sheet are according to our best knowledge correct on the day it was composed, and may not be regarded as warranty or quality specification.