Silver Nitrate, solution 4,791 g/l

Date 8.2.2013 Previous date: -

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

1.1 Product identifier

1.1.1 Commercial Product Name

Silver Nitrate, solution 4,791 g/l

1.1.2 Product code

FF634 1 L

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
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

Classification according to 1999/45/EC: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

1272/2008 (CLP)

Aquatic Chronic 1, H410

67/548/EEC - 1999/45/EC

N; R50-53

2.2 Label elements

1272/2008 (CLP)

GHS09

Signal word **Warning**

Hazard Statements

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P273 Avoid release to the environment.

2.3 Other hazards

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

CAS/EC and Reg. number	Chemical name of the substance	Concentration	Classification

7761-88-8	Silver nitrate	< 0.5 %	O; R8; C; R34;N; R50-53; Ox. Sol. 2, H272; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 M(Chronic)=100 M=1000

3.3 Other information
The texts of R and H phrases can be read in chapter 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures
Move the exposed person out from the contaminated area. Take off contaminated clothing immediately.

4.1.2 Inhalation
Move the exposed to fresh air.

4.1.3 Skin contact
Flush with copious amounts of water.

4.1.4 Eye contact
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

4.1.5 Ingestion
Rinse mouth with water and give much water to drink.

4.2 Most important symptoms and effects, both acute and delayed
No information available.

4.3 Indication of immediate medical attention and special treatment needed
If feeling unwell, seek medical advice.

5. FIREFIGHTING MEASURES

Non-combustible.

5.1 Extinguishing media

5.1.1 Suitable extinguishing media
Extinguishing media should be suitable to surrounding materials.

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

5.3 Advice for firefighters
Fire fighters have to wear a respirator.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Evacuate the area. Wear personal protective equipment.

6.2 Environmental precautions
Prevent leakage into sewers, soil, and waters.

6.3 Methods and materials for containment and cleaning up
Absorb in appropriate material. Pick up in containers for waste treatment. Clean contaminated surfaces. Ventilate the area.

6.4 Reference to other sections
8, 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Obey good laboratory practices, good hygiene and safety guidelines.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed.

7.3 Specific end use(s)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Threshold limits

7761-88-8	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
The values above are Finnish OEL values.

8.1.3 Limit values in other countries
-

8.1.4 DNELs
-

8.1.5 PNECs
-

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Obey good laboratory practices, good hygiene and safety guidelines. Adequate ventilation needed.

8.2.2 Individual protection measures

8.2.2.1 Respiratory protection
Respirator if vapours or aerosols are escaped in air.

8.2.2.2 Hand protection
Protective gloves complying with EN 374.

8.2.2.3 Eye/face protection
Protective goggles.

8.2.2.4 Skin protection
Working clothes.

8.2.3 Environmental exposure controls
Prevent leakage into sewers, soil, and waters.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Important Health Safety and Environmental Information

9.1.1 Appearance
Liquid.

9.1.2	**Odour**	No information available.
9.1.3	**Odour threshold**	No information available.
9.1.4	**pH**	No information available.
9.1.5	**Melting point/freezing point**	No information available.
9.1.6	**Initial boiling point and boiling range**	No information available.
9.1.7	**Flash point**	Not applicable.
9.1.8	**Evaporation rate**	No information available.
9.1.9	**Flammability (solid, gas)**	-
9.1.10	**Explosive properties**	
9.1.10.1	**Lower explosion limit**	-

9.1.10.2	**Upper explosion limit**	-
9.1.11	**Vapour pressure**	N/I
9.1.12	**Vapour density**	N/I
9.1.13	**Relative density**	No information available.
9.1.14	**Solubility(ies)**	
9.1.14.1	**Water solubility**	Soluble.
9.1.15	**Partition coefficient: n-octanol/water**	No information available.
9.1.16	**Auto-ignition temperature**	Not applicable.
9.1.17	**Decomposition temperature**	No information available.
9.1.18	**Viscosity**	No information available.
9.1.19	**Explosive properties**	No information available.
9.1.20	**Oxidising properties**	No information available.
9.2	**Other information**	

10. STABILITY AND REACTIVITY

10.1 Reactivity
No information available.

10.2 Chemical stability
Stable in normal conditions.

10.3 Possibility of hazardous reactions
No information available.

10.4 Conditions to avoid
Strong heating.

10.5 Incompatible materials
N/I

10.6 Hazardous decomposition products
No information available.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Acute toxicity
No hazard classification.

11.1.2 Irritation and corrosion
No hazard classification.

11.1.3 Sensitisation
No hazard classification.

11.1.4 Subacute, subchronic and prolonged toxicity
No hazard classification.

11.1.5 STOT-single exposure
No hazard classification.

11.1.6 STOT-repeated exposure
No hazard classification.

11.1.7 Aspiration hazard
Not classified.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.1.1 Aquatic toxicity
CAS 7761-88-8 Silver nitrate: LC_{50}(96h) = 6.5 µg/l (Ag-ions, fish)
Daphnia: LC_{50}(48h) = n. 0.22 µg/l (Ag-ions)
Algae: LC_{50}(24h) = 0.54 µg/l Chlamydomonas reinhardtii
Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

12.2.1 Biodegradation
No information available.

12.3 Bioaccumulative potential
BCF = 70
Bioaccumulation is unlikely.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
No information available.

12.6 Other adverse effects
Silver nitrate: M(Chronic)=100; M=1000

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Dispose of contents/container in accordance of local and national regulations.

13.2 Waste from residues / unused products
Dispose of as hazardous waste in compliance with local and national regulations.

14. TRANSPORT INFORMATION

	Land transport ADR/RID	Sea transport IMDG/IMO	Air transport ICAO/IATA
14.1 UN number	3082	3082	
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (silver nitrate)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (silver nitrate)	
14.3 Transport hazard class(es)	9	9	
14.4 Packing group	III	III	
14.5 Environmental hazards			
Other information			

14.6 Special precautions for users

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

15. REGULATORY INFORMATION

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

REACH regulation, CLP regulation (EC).
Finnish Occupational Exposure Limit values.

15.2 Chemical safety assessment

16. OTHER INFORMATION

16.3 Key literature references and sources for data
Harmonised classification according to CLP regulation.
ECHA registered chemicals.

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

R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H272	May intensify fire; oxidiser.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6 Training advice
Handling of environmentally hazardous substances.

16.7 Recommended restrictions
Avoid release to the environment.

16.8 Additional information available from:
Oy FF-Chemicals Ab, Finland, Tel: 0358 (0)8 5563; ffc@ff-chemicals.fi

The information contained herein is based on the present state of our knowledge and does therefore not guarantee certain properties.