



MATERIAL SAFETY DATA SHEET
Silver Nitrate Solution 1000g/l

Section 1 - Chemical Product and Company Identification

MSDS Name:	Silver Nitrate Solution 1000g/l
Catalog Numbers:	J/7380/PB08
Synonyms:	None known.
Company Identification:	Fisher Scientific UK Bishop Meadow Road, Loughborough Leics. LE11 5RG
For information in Europe, call:	(01509) 231166
Emergency Number, Europe:	01509 231166

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#	Hazard Symbols:	Risk Phrases:
7732-18-5	Water	Balance	231-791-2		
7761-88-8	Silver nitrate	10.0	231-853-9	C N	34 50/53

Text for R-phrases: see Section 16

Hazard Symbols: C N



Risk Phrases: 34 51/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Causes burns. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential Health Effects

- Eye:** Causes severe eye burns. May cause irreversible eye injury.
- Skin:** Causes skin burns.
- Ingestion:** May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns.
- Inhalation:** Causes chemical burns to the respiratory tract.
- Chronic:** Prolonged or repeated inhalation may cause nosebleeds, nasal congestion, erosion of the teeth, perforation of the nasal septum, chest pain and bronchitis. Prolonged or repeated eye contact may cause conjunctivitis.

Section 4 - First Aid Measures

- Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
- Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. Contact with water can cause violent liberation of heat and splattering of the material. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Extinguishing Media: Do NOT use water directly on fire. Use water spray to cool fire-exposed containers. Use dry chemical to fight fire.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling: Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Do not allow contact with water. Use only in a chemical fume hood.

Storage: Do not store near combustible materials. Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Do not store near alkaline substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

CAS# 7732-18-5:

CAS# 7761-88-8:

United Kingdom, WEL - TWA: (silver soluble compounds): 0.01 mg/m³ TWA (as Ag)
United Kingdom, WEL - STEL: (silver soluble compounds): 0.03 mg/m³ STEL (as Ag)

United States OSHA: 0.01 mg/m³ TWA (as Ag) (Silver soluble compounds).

Belgium - TWA: (silver soluble compounds): 0.01 mg/m³ TWA (as Ag)

France - VME: (silver soluble compounds): 0.01 mg/m³ VME (as Ag)

Germany: (silver soluble compounds): 0.01 mg/m³ VME (as Ag)

Japan: (silver compounds): 0.01 mg/m³ OEL (as Ag)

Malaysia: (silver soluble compounds): 0.01 mg/m³ TWA (as Ag)

Netherlands: (silver soluble compounds): 0.01 mg/m³ MAC (as Ag)

Spain: (silver soluble compounds): 0.01 mg/m³ VLA-ED (as Ag)

Personal Protective Equipment

- Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin:** Wear appropriate gloves to prevent skin exposure.
- Clothing:** Wear appropriate protective clothing to minimize contact with skin.
- Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

- Physical State:** Liquid
- Color:** colorless
- Odor:** Not available
- pH:** Not available
- Vapor Pressure:** Not available
- Viscosity:** Not available
- Boiling Point:** Not available
- Freezing/Melting Point:** Not available
- Autoignition Temperature:** Not applicable
- Flash Point:** Not applicable.
- Explosion Limits: Lower:** Not available
- Explosion Limits: Upper:** Not available
- Decomposition Temperature:** Not available
- Solubility in water:** Soluble in water.
- Specific Gravity/Density:** 1.9
- Molecular Formula:** Solution
- Molecular Weight:** 0

Section 10 - Stability and Reactivity

- Chemical Stability:** Stable under normal temperatures and pressures.
- Conditions to Avoid:** Incompatible materials, contact with water, excess heat, combustible materials.
- Incompatibilities with Other Materials** Metals, oxidizing agents, bases, amines, organics.
- Hazardous Decomposition Products** Nitrogen oxides, silver fumes.
- Hazardous Polymerization** Will not occur.

Section 11 - Toxicological Information

- RTECS#:** CAS# 7732-18-5: ZC0110000
CAS# 7761-88-8: VW4725000
- LD50/LC50:** RTECS:
CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;
.
RTECS:
CAS# 7761-88-8: Draize test, rabbit, eye: 1 mg Severe;
Draize test, rabbit, eye: 10 mg Moderate;
Oral, mouse: LD50 = 50 mg/kg;
Oral, rat: LD50 = 1173 mg/kg;
.
- Carcinogenicity:** Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Silver nitrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.	CORROSIVE LIQUID, N.O.S.
Hazard Class:	8	8	8
UN Number:	1760	1760	1760
Packing Group:	II	II	II

USA RQ: CAS# 7761-88-8: 1 lb final RQ; 0.454 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C N

Risk Phrases:

R 34 Causes burns.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 7732-18-5: Not available

CAS# 7761-88-8: 3

Canada

CAS# 7732-18-5 is listed on Canada's DSL List

CAS# 7761-88-8 is listed on Canada's DSL List

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 7761-88-8 is listed on the TSCA Inventory.

Section 16 - Other Information

Text for R-phrases from Section 2

R 34 Causes burns.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

MSDS Creation Date: 4/28/1999

Revision #4 Date 5/30/2007

Revisions were made in Sections: 2, 3, 4, 6, 7, 8, 9, 10, 12, 1

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