



Be Right™

# SAFETY DATA SHEET

Issue Date 06-Jun-2018

Revision Date 12-Jun-2018

Version 1.5

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## 1. IDENTIFICATION

### Product identifier

**Product Name** Silver Nitrate Standard Solution 0.1410 ± 0.008N

### Other means of identification

**Product Code(s)** 1255149

**Safety data sheet number** M00360

**UN/ID no** UN3082

### Recommended use of the chemical and restrictions on use

**Recommended Use** Determination of chloride.

**Uses advised against** None.

**Restrictions on use** For Laboratory Use Only.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

#### Emergency telephone number

+1(303) 623-5716 - 24 Hour Service +1(515)232-2533 - 8am - 4pm CST

## 2. HAZARDS IDENTIFICATION

### Classification

#### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (repeated exposure)	Category 1
Aquatic Acute Toxicity	Category 1
Chronic aquatic toxicity	Category 1

#### Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

**Signal word - Danger**

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**Hazard statements**

H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H372 - Causes damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects

**Precautionary statements**

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P332 + P313 - If skin irritation occurs: Get medical advice/attention  
P362 - Take off contaminated clothing and wash before reuse  
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  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P270 - Do not eat, drink or smoke when using this product  
P314 - Get medical advice/attention if you feel unwell  
P501 - Dispose of contents/ container to an approved waste disposal plant  
P273 - Avoid release to the environment  
P391 - Collect spillage

**Other Hazards Known**

Not applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

**Chemical Family** Mixture.  
**Chemical nature** Inorganic salt in aqueous solution.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No.	Percent Range	HMRIC #
Silver nitrate	7761-88-8	1 - 5%	-

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing.

##### Most important symptoms and effects, both acute and delayed

**Symptoms** Burning sensation.

##### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	Caution: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Hazardous combustion products</b>	This material will not burn.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

#### 6. ACCIDENTAL RELEASE MEASURES

**U.S. Notice** Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

##### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.
<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

**Flammability class** Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silver nitrate CAS#: 7761-88-8	TWA: 0.01 mg/m <sup>3</sup>	TWA: 0.01 mg/m <sup>3</sup> (vacated) TWA: 0.01 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ag TWA: 0.01 mg/m <sup>3</sup> Ag

### Appropriate engineering controls

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

### Individual protection measures, such as personal protective equipment

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hand Protection** Wear suitable gloves. Impervious gloves.

**Eye/face protection** If splashes are likely to occur, wear safety glasses with side-shields.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**General Hygiene Considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Do not

allow into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	<b>Color</b>	colorless
<b>Appearance</b>	aqueous solution	<b>Odor threshold</b>	Not applicable
<b>Odor</b>	None		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	Not applicable	
pH	4.9	
Melting point/freezing point	~ -1 °C / 30.2 °F	Estimation based on theoretical calculation
Boiling point / boiling range	> ~ 100 °C / 212 °F	Estimation based on theoretical calculation
Evaporation rate	0.74 (water = 1)	
Vapor pressure	23.702 mm Hg / 3.16 kPa at 25 °C / 77 °F	Estimation based on theoretical calculation
Vapor density (air = 1)	0.62 (air = 1)	
Specific gravity (water = 1 / air = 1)	1.018	
Partition Coefficient (n-octanol/water)	Not applicable	
Soil Organic Carbon-Water Partition Coefficient	Not applicable	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	Not applicable	
Kinematic viscosity	Not applicable	

### Solubility(ies)

#### Water solubility

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Soluble	> 1000 mg/L	25 °C / 77 °F

#### Solubility in other solvents

<u>Chemical Name</u>	<u>Solubility classification</u>	<u>Solubility</u>	<u>Solubility Temperature</u>
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

### Other Information

#### Metal Corrosivity

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**Steel Corrosion Rate**  
**Aluminum Corrosion Rate**

No data available  
No data available

#### Volatile Organic Compounds (VOC) Content

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Silver nitrate	7761-88-8	Not applicable	-

#### Explosive properties

**Upper explosion limit** No data available  
**Lower explosion limit** No data available

#### Flammable properties

**Flash point** No data available

#### Flammability Limit in Air

**Upper flammability limit** No data available  
**Lower flammability limit** No data available

#### Oxidizing properties

No data available.

#### Bulk density

No data available

#### Particle Size

No information available

#### Particle Size Distribution

No information available

## 10. STABILITY AND REACTIVITY

#### Reactivity

Not applicable.

#### Chemical stability

**Stability** Stable under normal conditions.

#### Explosion data

**Sensitivity to Mechanical Impact** None  
**Sensitivity to Static Discharge** None.

#### Possibility of Hazardous Reactions

**Possibility of Hazardous Reactions** None under normal processing.

#### Hazardous polymerization

Hazardous polymerization does not occur.

#### Conditions to avoid

**Conditions to avoid** None known based on information supplied.

#### Incompatible materials

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

#### Hazardous Decomposition Products

None under normal use conditions.

## 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### Product Information

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye contact</b>	Irritating to eyes. Causes serious eye irritation.
<b>Skin contact</b>	Causes skin irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Symptoms** Redness. May cause redness and tearing of the eyes.

<b>Aggravated Medical Conditions</b>	Skin disorders. Eye disorders. Preexisting eye disorders. Nasal Septum.
<b>Toxicologically synergistic products</b>	None known.
<b>Toxicokinetics, metabolism and distribution</b>	See ingredients information below.

Chemical name	Toxicokinetics, metabolism and distribution
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Silver is chelated and removed from a body by a very slow enzymatic process.

### Product Acute Toxicity Data

<b>Oral Exposure Route</b>	No data available
<b>Dermal Exposure Route</b>	No data available
<b>Inhalation (Dust/Mist) Exposure Route</b>	No data available
<b>Inhalation (Vapor) Exposure Route</b>	No data available
<b>Inhalation (Gas) Exposure Route</b>	No data available

### Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

### Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

<b>ATEmix (oral)</b>	49,703.00 mg/kg
<b>ATEmix (dermal)</b>	No information available
<b>ATEmix (inhalation-dust/mist)</b>	No information available
<b>ATEmix (inhalation-vapor)</b>	No information available
<b>ATEmix (inhalation-gas)</b>	No information available

### Ingredient Acute Toxicity Data

#### Oral Exposure Route

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Rat LD <sub>50</sub>	1173 mg/kg	None reported	<b>Behavioral</b> Tetany <b>Lungs, Thorax, or Respiration</b> Cyanosis <b>Gastrointestinal</b>	RTECS (Registry of Toxic Effects of Chemical Substances)

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Mouse LD <sub>50</sub>	50 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

**Dermal Exposure Route** If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Rat LD <sub>50</sub>	> 2000 mg/kg	15 days	No deaths occurred at reported dose	ECHA (The European Chemicals Agency)

**Inhalation (Dust/Mist) Exposure Route** If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Rat LC <sub>50</sub>	> 0.750 mg/m <sup>3</sup>	4 hours	No deaths occurred at reported dose	ECHA (The European Chemicals Agency)

**Inhalation (Vapor) Exposure Route** If available, see data below

**Inhalation (Gas) Exposure Route** If available, see data below

**Product Specific Target Organ Toxicity Single Exposure Data**

**Oral Exposure Route** No data available  
**Dermal Exposure Route** No data available  
**Inhalation (Dust/Mist) Exposure Route** No data available  
**Inhalation (Vapor) Exposure Route** No data available  
**Inhalation (Gas) Exposure Route** No data available

**Ingredient Specific Target Organ Toxicity Single Exposure Data**

**Oral Exposure Route** If available, see data below  
**Dermal Exposure Route** If available, see data below  
**Inhalation (Dust/Mist) Exposure Route** If available, see data below  
**Inhalation (Vapor) Exposure Route** If available, see data below  
**Inhalation (Gas) Exposure Route** If available, see data below

**Aspiration toxicity**

If available, see data below

**Kinematic viscosity** Not applicable

**Product Skin Corrosion/Irritation Data**

No data available.

**Ingredient Skin Corrosion/Irritation Data**

If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Existing human experience	Human	None reported	None reported	Corrosive to skin	NIOSH (National Institute for Occupational Safety and Health)

**Product Serious Eye Damage/Eye Irritation Data**

No data available.

**Ingredient Eye Damage/Eye Irritation Data**

If available, see data below

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
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Silver nitrate (1 - 5%) CAS#: 7761-88-8	Existing human experience	Human	None reported	None reported	Corrosive to eyes	NIOSH (National Institute for Occupational Safety and Health)
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**Sensitization Information**

**Product Sensitization Data**

Skin Sensitization Exposure Route No data available.  
 Respiratory Sensitization Exposure Route No data available.

**Ingredient Sensitization Data**

Skin Sensitization Exposure Route If available, see data below.

Chemical name	Test method	Species	Results	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Buehler Test	Guinea pig	Not confirmed to be a skin sensitizer	ECHA (The European Chemicals Agency)

Respiratory Sensitization Exposure Route If available, see data below.

**Chronic Toxicity Information**

**Product Specific Target Organ Toxicity Repeat Dose Data**

Oral Exposure Route No data available.  
 Dermal Exposure Route No data available.  
 Inhalation (Dust/Mist) Exposure Route No data available.  
 Inhalation (Vapor) Exposure Route No data available.  
 Inhalation (Gas) Exposure Route No data available.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data**

Oral Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Rat TD <sub>Lo</sub>	0.7 mg/kg	14 days	<b>Kidney, Ureter, or Bladder</b> Interstitial nephritis <b>Liver</b> Hepatitis (hepatocellular necrosis), diffuse <b>Nutritional and Gross Metabolic</b> Weight loss or decreased weight gain	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Rat TD <sub>Lo</sub>	28560 mg/kg	17 weeks	<b>Cardiac</b> <b>Liver</b> Other changes <b>Kidney, Ureter, or Bladder</b> Changes in tubules (including acute renal failure, acute tubular necrosis)	RTECS (Registry of Toxic Effects of Chemical Substances)

Dermal Exposure Route If available, see data below

Inhalation (Dust/Mist) Exposure Route If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Rat TC <sub>Lo</sub>	0.012 mg/L	119 days	<b>Blood</b> Changes in erythrocyte (RBC) count <b>Cardiac</b> Pulse rate	RTECS (Registry of Toxic Effects of Chemical Substances)

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				<b>Kidney, Ureter, or Bladder</b> Urine volume increased	
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Inhalation (Vapor) Exposure Route If available, see data below  
 Inhalation (Gas) Exposure Route If available, see data below

**Product Carcinogenicity Data**

Oral Exposure Route No data available  
 Dermal Exposure Route No data available  
 Inhalation (Dust/Mist) Exposure Route No data available  
 Inhalation (Vapor) Exposure Route No data available  
 Inhalation (Gas) Exposure Route No data available

**Ingredient Carcinogenicity Data**

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Silver nitrate	7761-88-8	-	Group 2A	-	X

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	Does not apply
<b>IARC (International Agency for Research on Cancer)</b>	Group 2A - Probably Carcinogenic to Humans
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA (Occupational Safety and Health Administration of the US Department of Labor)</b>	X - Present

Oral Exposure Route If available, see data below  
 Dermal Exposure Route If available, see data below  
 Inhalation (Dust/Mist) Exposure Route If available, see data below  
 Inhalation (Vapor) Exposure Route If available, see data below  
 Inhalation (Gas) Exposure Route If available, see data below

**Product Germ Cell Mutagenicity *invitro* Data**

No data available.

**Ingredient Germ Cell Mutagenicity *invitro* Data**

If available, see data below

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	DNA inhibition	Human lymphocyte	0.076 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

**Product Germ Cell Mutagenicity *invivo* Data**

Oral Exposure Route No data available  
 Dermal Exposure Route No data available  
 Inhalation (Dust/Mist) Exposure Route No data available  
 Inhalation (Vapor) Exposure Route No data available  
 Inhalation (Gas) Exposure Route No data available

**Ingredient Germ Cell Mutagenicity *invivo* Data**

Oral Exposure Route If available, see data below  
 Dermal Exposure Route If available, see data below  
 Inhalation (Dust/Mist) Exposure Route If available, see data below  
 Inhalation (Vapor) Exposure Route If available, see data below  
 Inhalation (Gas) Exposure Route If available, see data below

**Product Reproductive Toxicity Data**

Oral Exposure Route No data available  
 Dermal Exposure Route No data available

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Inhalation (Dust/Mist) Exposure Route  
 Inhalation (Vapor) Exposure Route  
 Inhalation (Gas) Exposure Route

No data available  
 No data available  
 No data available

**Ingredient Reproductive Toxicity Data**

**Oral Exposure Route**

If available, see data below

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Rat TD <sub>Lo</sub>	28560 mg/kg	17 weeks	<b>Paternal Effects</b> Spermatogenesis (including genetic material, sperm morphology, motility, and count)	RTECS (Registry of Toxic Effects of Chemical Substances)

**Inhalation (Dust/Mist) Exposure Route**

If available, see data below

**Inhalation (Vapor) Exposure Route**

If available, see data below

**Inhalation (Gas) Exposure Route**

If available, see data below

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects

**Product Ecological Data**

**Aquatic toxicity**

**Fish**

No data available

**Crustacea**

No data available

**Algae**

No data available

**Ingredient Ecological Data**

**Aquatic toxicity**

**Fish**

If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	96 hours	<i>Oncorhynchus mykiss</i>	LC <sub>50</sub>	0.006 mg/L	PEEN (Pan European Ecological Network)

**Crustacea**

If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	48 Hours	<i>Daphnia magna</i>	LC <sub>50</sub>	0.00156 mg/L	PEEN (Pan European Ecological Network)

**Algae**

If available, see ingredient data below

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Silver nitrate (1 - 5%) CAS#: 7761-88-8	96 hours	<i>Scenedesmus dimorphus</i>	EC <sub>50</sub>	0.0093 mg/L	PEEN (Pan European Ecological Network)

**Other Information**

**Persistence and degradability**

**Product Biodegradability Data**

No data available.

**Ingredient Biodegradability Data**

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Chemical name	Test method	Biodegradation	Exposure time	Results
Silver nitrate (1 - 5%) CAS#: 7761-88-8	Inorganic Salt	None reported	None reported	Not readily biodegradable

#### Bioaccumulation

##### Product Bioaccumulation Data

No data available.

##### Partition Coefficient (n-octanol/water)

Not applicable

##### Ingredient Bioaccumulation Data

Chemical name	Test method	Exposure time	Species	Bioconcentration factor (BCF)	Results
Silver nitrate (1 - 5%) CAS#: 7761-88-8	None reported	6 weeks	<i>Cyprinus carpio</i>	BCF = 70	Does not have the potential to bioaccumulate

#### Mobility

##### Soil Organic Carbon-Water Partition Coefficient

Not applicable

##### Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

##### Other adverse effects

No information available.

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

##### Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

##### Contaminated packaging

Do not reuse empty containers.

##### US EPA Waste Number

Not applicable

##### Special instructions for disposal

Adjust to a pH between 6 and 9 with an alkali, such as soda ash or sodium bicarbonate. Dispose of material in an E.P.A. approved hazardous waste facility.

### 14. TRANSPORT INFORMATION

#### U.S. DOT

UN/ID no

UN3082

Proper shipping name

Environmentally hazardous substance, liquid, n.o.s.

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**DOT Technical Name** Silver nitrate  
**Hazard Class** 9  
**Packing Group** III  
**Reportable Quantity (RQ)** Silver nitrate: RQ kg= 19.24  
**Emergency Response Guide Number** 171

#### TDG

**UN/ID no** UN3082  
**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s.  
**TDG Technical Name** Silver nitrate  
**Hazard Class** 9  
**Packing Group** III  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate), 9, III

#### IATA

**UN/ID no** UN3082  
**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s.  
**IATA Technical Name** Silver nitrate  
**Hazard Class** 9  
**Packing Group** III  
**ERG Code** 9L  
**Special precautions for user** A97, A158  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate), 9, III

#### IMDG

**UN/ID no** UN3082  
**Proper shipping name** Environmentally hazardous substance, liquid, n.o.s.  
**IMDG Technical Name** Silver nitrate  
**Hazard Class** 9  
**Packing Group** III  
**EmS-No** F-A, S-F  
**Special precautions for user** 274, 335  
**Marine pollutant** This material meets the definition of a marine pollutant  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate), 9, III, Marine Pollutant

#### **Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

### 15. REGULATORY INFORMATION

#### National Inventories

**TSCA** Complies  
**DSL/NDSL** Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

#### International Inventories

**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Complies  
**PICCS** Complies  
**TCSI** Complies  
**AICS** Complies

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**NZIoC** Complies

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**TCSI** - Taiwan Chemical Substances Inventory  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Silver nitrate (CAS #: 7761-88-8)	1.0

#### **SARA 311/312 Hazard Categories**

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Silver nitrate 7761-88-8	1 lb	X	-	X

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Silver nitrate 7761-88-8	1 lb	-	RQ 1 lb final RQ RQ 0.454 kg final RQ

### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

**IMERC:** Not applicable

#### **U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
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Silver nitrate 7761-88-8	X	X	X
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**U.S. EPA Label Information**

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

**Special Comments**

None

**Additional information**

**Global Automotive Declarable Substance List (GADSL)**

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thersholds
Silver nitrate 7761-88-8	Declarable Substance (LR)	0.0 %

**NFPA and HMIS Classifications**

NFPA	Health hazards - 2	Flammability - 0	Instability - 0	Physical and Chemical Properties -
HMIS	Health hazards - 2	Flammability - 0	Physical Hazards - 0	Personal protection - X - See section 8 for more information

**Key or legend to abbreviations and acronyms used in the safety data sheet**

NIOSH IDLH *Immediately Dangerous to Life or Health*  
 ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)  
 NDF *no data*

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department  
**Issue Date** 06-Jun-2018  
**Revision Date** 12-Jun-2018  
**Revision Note** SDS sections updated  
 2

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**Disclaimer**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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**End of Safety Data Sheet**