



SAFETY DATA SHEET

According to 29 CFR 1910.1200 Hazard Communication Standard 2012 (HazCom 2012)

Revision: 03/31/2022

SECTION 1: Identification

| | |
|---|--|
| Product identifier(s) | |
| Product name | Silver Nitrate N/35.5, N/50, N/58.4, N/71 |
| Product number | This safety data sheet pertains to the following products: R-0629-35, R-0629-35-PL, R-0629-50, R-0629-58, R-0629-71 |
| Recommended use and restrictions | Water analysis. To be used in accordance with manufacturer instructions or under the direct guidance of the manufacturer. |
| Manufacturer | Taylor Water Technologies LLC 31 Loveton Circle Sparks, MD 21152 Local: (410) 472-4340 – 8am – 5pm EST Toll-free: (800) 837-8548 – 8am – 5pm EST |
| Emergency phone number | |
| CHEMTREC, United States | 1-800-424-9300 – 24-hour service |
| CHEMTREC, International | +1 703-741-5970 – 24-hour service |

SECTION 2: Hazard(s) Identification

| | | |
|------------------------------|---|------------|
| Physical hazards | Not classified | |
| Health hazards | Not classified | |
| Environmental hazards | Acute (short-term) aquatic toxicity hazard | Category 1 |
| | Chronic (long-term) aquatic toxicity hazard | Category 1 |

Label elements

Hazard pictograms



| | |
|---|---|
| Signal word | Warning |
| Hazard statements | Very toxic to aquatic life with long lasting effects. |
| Precautionary statements | |
| Prevention | Avoid release into the environment. |
| Response | Collect spillage. |
| Storage | Keep tightly capped. Store out of direct sunlight between 36°F–85°F. |
| Disposal | Dispose of contents/container in accordance with local/regional/national/international regulations. |
| Hazards not otherwise classified | Not applicable |
| Supplemental information | CAUTION: Protect skin and work surface. Chemical may stain. |

SECTION 3: Composition/Information on Ingredients

Mixture

| Chemical name | Common name and synonyms | CAS number | % w/w |
|----------------|----------------------------|------------|--------|
| Water | Dihydrogen oxide | 7732-18-5 | 99-100 |
| Silver Nitrate | Nitric Acid Silver(I) Salt | 7761-88-8 | 0.1–1 |

SECTION 4: First-Aid Measures

If inhaled

Remove individual to fresh air. Seek medical advice/attention if breathing becomes difficult or if respiratory irritation develops. Give oxygen or artificial respiration if needed.

In case of skin contact

Immediately flush skin with plenty of water for at least 20 minutes. If clothing comes in contact with the product, the clothing should be removed and laundered before reuse. Seek medical advice/attention if irritation develops.

In case of eye contact

Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses if present and easy to do. Continue rinsing. If symptoms persist or in all cases of concern, seek medical advice/attention.

If swallowed

Rinse mouth. Never give anything by mouth to a person who is unconscious or is having convulsions. Do NOT induce vomiting unless directed by physician. If vomiting occurs, keep head low so that stomach content does not get into the lungs. If symptoms persist or in all cases of concern, seek medical advice/attention.

Most important symptoms and effects, both acute and delayed

Direct skin or eye contact may cause temporary irritation. Symptoms may include redness or itching. Tearing of the eyes or blurred vision may occur. Contact may produce temporary discoloration of the skin. Inhalation may cause respiratory irritation, such as coughing. Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Refer to section 11 of the SDS for delayed and immediate effects and chronic effects from short- and long-term exposure.

Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Ensure medical personnel are aware of the material(s) involved and take precautions to protect themselves.

SECTION 5: Firefighting Measures**Extinguishing media**

Suitable extinguishing media Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Specific hazards arising from the substance or mixture

Fire hazard Not flammable

Explosion hazard Not explosive

Reactivity Hazardous reactions will not occur under normal conditions.

Hazardous combustion products Nitrogen oxides. During fire, gases hazardous to health may be formed.

Advice for firefighters

Precautionary measures Exercise caution when fighting any chemical fire; hazardous fumes will be present.

Firefighting equipment/instructions Use water spray or fog for cooling exposed containers.

Protection during firefighting Do not enter fire area without proper protective equipment, including respiratory protection.

Other information Refer to section 9 of the SDS for flammability properties.

SECTION 6: Accidental Release Measures**Personal precautions, protective equipment, and emergency procedures**

Wear appropriate protective equipment and clothing during cleanup. Local authorities should be advised if significant spillages cannot be contained. For personal protective equipment, refer to section 8 of the SDS.

Environmental precautions

Avoid discharge into drains, watercourses, or onto the ground.

Methods and material for containment and cleaning up

Dike the spilled material where this is possible. Stop leak if it can be done without risk. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth, and place into containers. Prevent entry into waterways, sewers, basements, or confined areas. Following product recovery, flush area with water. Never return spills to original containers for reuse.

Contaminated absorbent material may pose the same hazards as the spilled product. In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Reference to other sections

For exposure controls and personal protection, refer to section 8 of the SDS. For waste disposal, refer to section 13 of the SDS.

SECTION 7: Handling and Storage**Personal precautions, protective equipment, and emergency procedures**

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure.

Provide adequate ventilation. Wear appropriate personal protective equipment. For personal protective equipment, refer to section 8 of the SDS. Keep away from incompatibles. Observe good industrial hygiene practices. Label containers appropriately.

Conditions for safe storage, including any incompatibilities

Keep tightly capped. Store out of direct sunlight between 36°F–85°F. Store away from incompatible materials (refer to section 10 of the SDS).

SECTION 8: Exposure Controls/Personal Protection

Occupational exposure limits

US ACGIH Threshold Limit Values

| <u>Components</u> | <u>Type</u> | <u>Value</u> |
|--------------------------------------|-------------|------------------------|
| Silver Nitrate (CAS 7761-88-8) as Ag | TWA | 0.01 mg/m ³ |

US NIOSH: Pocket Guide to Chemical Hazards

| <u>Components</u> | <u>Type</u> | <u>Value</u> |
|--------------------------------------|-------------|------------------------|
| Silver Nitrate (CAS 7761-88-8) as Ag | TWA | 0.01 mg/m ³ |
| Silver Nitrate (CAS 7761-88-8) as Ag | IDLH | 10 mg/m ³ |

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| <u>Components</u> | <u>Type</u> | <u>Value</u> |
|--------------------------------------|-------------|------------------------|
| Silver Nitrate (CAS 7761-88-8) as Ag | TWA | 0.01 mg/m ³ |

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eyewash facilities and emergency shower must be available when handling this product.

Personal protective equipment

| | |
|------------------------|---|
| Eye/face protection | Wear appropriate chemical safety goggles if contact is likely to occur. |
| Skin protection | Wear appropriate chemical-resistant gloves and clothing if contact is likely to occur. |
| Body protection | Wear appropriate protective clothing if contact is likely to occur. |
| Respiratory protection | In case of insufficient ventilation, wear suitable respiratory equipment. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fumes at levels exceeding the exposure limits. Advice should be sought from respiratory protection suppliers. |

SECTION 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|---------------------------------------|---------------------------------------|
| Physical state | Liquid |
| Form | Liquid |
| Color | Clear, colorless, or nearly colorless |
| Odor | Odorless |
| Odor threshold | No data available |
| pH | No data available |
| Evaporation rate | No data available |
| Melting point | No data available |
| Freezing point | No data available |
| Initial boiling point (boiling range) | No data available |
| Flash point | No data available |
| Specific gravity | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Flammability (solid, gas) | No data available |
| Upper Flammability Limit | No data available |
| Lower Flammability Limit | No data available |
| Vapor pressure | No data available |
| Vapor density | No data available |
| Relative density | No data available |

| | |
|---|-------------------|
| Solubility | Soluble in water |
| Partition coefficient (n-octanol/water) | No data available |
| Viscosity | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |

SECTION 10: Stability and Reactivity

| | |
|---|--|
| Reactivity | Hazardous reactions will not occur under normal conditions of use, storage, and transport. |
| Chemical stability | Stable under recommended handling and storage conditions (refer to section 7 of the SDS). |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Contact with incompatible materials. Do not use in areas without adequate ventilation. |
| Incompatible materials | Strong oxidizing materials, strong acids. Acetylene, alcohols, ammonia, magnesium, metals, sulfur. |
| Hazardous decomposition products | No hazardous decomposition products known. |

SECTION 11: Toxicological Information

Information on likely routes of exposure

| | |
|--------------|---|
| Inhalation | Avoid inhalation of this product. Use in a well-ventilated area. |
| Skin contact | Protect exposed skin from contact. Use caution to avoid splashes. |
| Eye contact | Avoid close eye contact; use caution to avoid splashes. Wear eye protection. |
| Ingestion | Do not ingest. Avoid accidental ingestion by observing good hygiene practices. Wash hands thoroughly after handling this product. |

Symptoms related to the physical, chemical, and toxicological characteristics Contact may produce temporary discoloration of the skin. Refer to section 4 of the SDS for most important symptoms and effects.

Delayed and immediate effects and chronic effects from short- and long-term exposure

Acute toxicity This product is not classified as an acute toxicity hazard. See below for product and individual ingredient acute toxicity data. 0% of the mixture consists of ingredient(s) with unknown acute oral toxicity.

Product acute toxicity estimate (ATE)

| | |
|----------------------------|-------------------|
| ATEmix (Oral) | >2500 mg/kg |
| ATEmix (Dermal) | No data available |
| ATEmix (Inhalation) | No data available |

| Component(s) | Species | Acute toxicity data |
|---------------------------------------|---------|----------------------------|
| Silver nitrate (CAS 7761-88-8) | | |
| LD50 (Oral) | Rat | >2000 mg/kg (source: ECHA) |
| LD50 (Dermal) | Rabbit | No data available |
| LC50 (Inhalation) | Rat | No data available |

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory sensitization No data available

Skin sensitization No data available

Germ cell mutagenicity No data available

Carcinogenicity

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096)

Not regulated

US National Toxicology Program (NTP) Report on Carcinogens

Not listed

| | |
|---|-------------------|
| Reproductive toxicity | No data available |
| Specific target organ toxicity (single exposure) | No data available |
| Specific target organ toxicity (repeated exposure) | No data available |
| Aspiration hazard | No data available |

SECTION 12: Ecological Information

| | | |
|---------------------------------------|--|-------------------------------|
| Ecotoxicity | Very toxic to aquatic life with long lasting effects. | |
| Silver nitrate (CAS 7761-88-8) | | |
| EC50 | Aquatic invertebrates | 0.00022 mg/L, 48 hours (ECHA) |
| LC50 | Fish | 0.0012 mg/L, 96 hours (ECHA) |
| Persistence and degradability | No data available | |
| Bioaccumulative potential | No data available | |
| Mobility in soil | No data available | |
| Other adverse effects | Large or frequent spills can have a harmful or damaging effect on the environment. | |

SECTION 13: Disposal Considerations

Collect and reclaim or dispose of in sealed containers at a licensed waste disposal site. Since emptied containers may retain product residue, follow label warnings even after container is emptied. This material and its container must be disposed of in a safe manner. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport Information

DOT

| | |
|--------------------------------|---|
| UN number | 3082 |
| UN Proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate solution) |
| Reportable Quantity | 1lb, Silver nitrate |
| Class (Subsidiary risk) | 9 |
| Label(s) | 9 |
| Packing group | III |
| Special provisions | 8, 146, 173, 335, IB3, T4, TP1, TP29 |
| Packaging exceptions | 155 |
| Packaging, non-bulk | 203 |

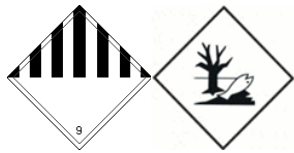
IATA

| | |
|--------------------------------|---|
| UN number | 3082 |
| UN Proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate solution) |
| Class (Subsidiary risk) | 9 |
| Packing group | III |
| Special provisions | A97, A158, A197 |

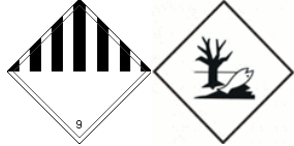
IMDG

| | |
|---|---|
| UN number | 3082 |
| UN Proper shipping name | Environmentally hazardous substance, liquid, n.o.s. (Silver nitrate solution) |
| Class (Subsidiary risk) | 9 |
| Packing group | III |
| Environmental hazards | |
| Marine pollutant | Yes |
| Special provisions | 274, 335, 969 |
| EmS | F-A, S-F |
| Special precautions for user | Read safety instructions, SDS, and emergency procedures before handling. |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | This substance/mixture is not intended to be transported in bulk. |

DOT hazard pictograms



IATA; IMDG hazard pictograms



SECTION 15: Regulatory Information

US federal regulations

CERCLA Hazardous Substance (40 CFR 302.4)

| <u>Chemical name</u> | <u>CAS number</u> | <u>Reportable Quantity</u> |
|----------------------|-------------------|----------------------------|
| Silver Nitrate | 7761-88-8 | 1 lb |

SARA 302 Extremely Hazardous Substance (40 CFR 355 Appendices A / B)

Not regulated

SARA 304 Emergency Release Notification

Not regulated

SARA 311/312 Hazardous Chemical

| <u>Chemical name</u> | <u>CAS number</u> |
|----------------------|-------------------|
| Silver Nitrate | 7761-88-8 |

SARA 313 (TRI reporting)

| <u>Chemical name</u> | <u>CAS number</u> |
|----------------------|-------------------|
| Silver Nitrate | 7761-88-8 |

TSCA Section 8(b) Chemical Inventory

All components are on the U.S. EPA TSCA Inventory list.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs)

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated

Clean Water Act, Toxic and Priority Pollutants (40 CFR 401.15 and CFR 423, Appendix A)

| <u>Chemical name</u> | <u>CAS number</u> |
|----------------------|-------------------|
| Silver Nitrate | 7761-88-8 |

Safe Drinking Water Act (SDWA)

Not regulated

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (California Proposition 65)

Not regulated

Massachusetts Right-to-Know Act

| <u>Chemical name</u> | <u>CAS number</u> |
|----------------------|-------------------|
| Silver Nitrate | 7761-88-8 |

New Jersey Worker and Community Right-to-Know Act

| <u>Chemical name</u> | <u>CAS number</u> |
|----------------------|-------------------|
| Silver Nitrate | 7761-88-8 |

Pennsylvania Worker and Community Right-to-Know Act

| <u>Chemical name</u> | <u>CAS number</u> |
|----------------------|-------------------|
| Silver Nitrate | 7761-88-8 |

Rhode Island Right-to-Know Act

| <u>Chemical name</u> | <u>CAS number</u> |
|----------------------|-------------------|
| Silver Nitrate | 7761-88-8 |

SECTION 16: Other Information**NFPA Rating**

| | |
|---------------|-----|
| Health hazard | 0 |
| Fire hazard | 0 |
| Reactivity | 0 |
| Specific | N/A |

Disclaimer

The information in the Safety Data Sheet is offered for your consideration and guidance for safe handling, use, storage, transportation, disposal, and release of this product and is not considered a warranty or quality specification. Taylor Water Technologies LLC disclaims all expressed or implied warranties and assumes no responsibility for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

License granted to make unlimited paper copies for internal use only. This Safety Data Sheet may not be altered in any way without the expressed knowledge and permission of Taylor Water Technologies LLC. The information contained in this sheet is based on lab experience and the most current data available.

Issue date:

May 2015

Revision date:

03/31/2022

Revision information:

This document embodies significant change(s) that may impact classification, safe handling, or health information for the associated product(s). The information contained herein should be reviewed in its entirety before handling material.

Manufacturer information. Hazard classification.

Supersedes revision dated April 2018 for products R-0629-35 and R-0629-35-PL. Supersedes revision dated February 2020 for products R-0629-50, R-0629-58, and R-0629-71.