SECTION 1: Identification

1.1. Identification
Product form : Mixtures
Product name : Silver Nitrate, 0.05N (0.05M)
Product code : LC22670

1.2. Recommended use and restrictions on use
Use of the substance/mixture : For laboratory and manufacturing use only.
Recommended use : Laboratory chemicals
Restrictions on use : Not for food, drug or household use

1.3. Supplier
LabChem Inc
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS-US classification
Not classified

2.2. GHS Label elements, including precautionary statements
Not classified as a hazardous chemical.
Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>(CAS-No.)  7732-18-5</td>
<td>99.15</td>
<td>Not classified</td>
</tr>
<tr>
<td>Silver Nitrate</td>
<td>(CAS-No.)  7761-88-8</td>
<td>0.85</td>
<td>Ox. Sol. 2, H272, Acute Tox. 4 (Oral), H302, Skin Corr. 1B, H314, Eye Dam. 1, H318, Aquatic Acute 1, H400, Aquatic Chronic 1, H410</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures
First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact: May stain the skin.
Symptoms/effects upon intravenous administration: Not available.
Chronic symptoms: Blue/grey discoloration of the skin. Methemoglobinemia.

4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment: Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.
Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container closed when not in use.
Incompatible products: Strong bases. Strong acids.
Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Silver Nitrate (7761-88-8)</th>
<th>ACGIH</th>
<th>ACGIH TWA (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.01 mg/m³</td>
</tr>
</tbody>
</table>

02/20/2018 EN (English US) 2/7
Silver Nitrate, 0.05N (0.05M)
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Silver Nitrate (7761-88-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>0.01 mg/m³</td>
</tr>
<tr>
<td>US IDLH (mg/m³)</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>0.01 mg/m³</td>
</tr>
</tbody>
</table>

Water (7732-18-5)
Not applicable

8.2. Appropriate engineering controls
Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment
Personal protective equipment:
Safety glasses.

Hand protection:
Wear protective gloves.

Eye protection:
Chemical goggles or safety glasses

Respiratory protection:
Respiratory protection not required in normal conditions

Other information:
Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Liquid
Appearance: Clear, colorless liquid.
Color: Colorless
Odor: Odorless
Odor threshold: No data available
pH: No data available
Melting point: No data available
Freezing point: No data available
Boiling point: No data available
Flash point: No data available
Relative evaporation rate (butyl acetate=1): No data available
Flammability (solid, gas): Non flammable.
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: No data available
Specific gravity / density: 1 g/ml
Solubility: Soluble in water.
Log Pow: No data available
Silver Nitrate, 0.05N (0.05M)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available,</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
No additional information available

10.2. Chemical stability
Not established.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Likely routes of exposure: Skin and eye contact
Acute toxicity: Not classified

Silver Nitrate (7761-88-8)

<table>
<thead>
<tr>
<th>Term</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>1173 mg/kg (Rat)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>1173 mg/kg body weight</td>
</tr>
</tbody>
</table>

Water (7732-18-5)

<table>
<thead>
<tr>
<th>Term</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>≥ 90000 mg/kg</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>90000 mg/kg body weight</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Not classified
Specific target organ toxicity – single exposure: Not classified
Specific target organ toxicity – repeated exposure: Not classified
Aspiration hazard: Not classified
Potential Adverse human health effects and symptoms: Based on available data, the classification criteria are not met.
Symptoms/effects after skin contact: May stain the skin.

Based on available data, the classification criteria are not met.
Silver Nitrate, 0.05N (0.05M)

Safety Data Sheet


Symptoms/effects upon intravenous administration: Not available.

Chronic symptoms: Blue/grey discoloration of the skin. Methemoglobinemia.

SECTION 12: Ecological information

12.1. Toxicity

Silver Nitrate (7761-88-8)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>0.006 mg/l (96 h, Salmo gairdneri, Flow-through system)</td>
</tr>
<tr>
<td>EC50 Daphnia 1</td>
<td>0.0006 mg/l (48 h, Daphnia magna)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Silver Nitrate, 0.05N (0.05M)

Persistence and degradability: Not established.

Silver Nitrate (7761-88-8)

Persistence and degradability: Biodegradability: not applicable.

Biochemical oxygen demand (BOD): Not applicable

Chemical oxygen demand (COD): Not applicable

ThOD: Not applicable

BOD (% of ThOD): Not applicable

Water (7732-18-5)

Persistence and degradability: Not established.

12.3. Bioaccumulative potential

Silver Nitrate, 0.05N (0.05M)

Bioaccumulative potential: Not established.

Silver Nitrate (7761-88-8)

BCF fish 1: 11 - 19 (Micropterus salmoides, Chronic)

BCF fish 2: 15 - 150 (Lepomis macrochirus, Chronic)

Log Pow: 0.19 (Estimated value)

Bioaccumulative potential: Low potential for bioaccumulation (BCF < 500).

Water (7732-18-5)

Bioaccumulative potential: Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials: Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated
SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

<table>
<thead>
<tr>
<th>Silver Nitrate (7761-88-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ (Reportable quantity, section 304 of EPA’s List of Lists)</td>
</tr>
</tbody>
</table>

15.2. International regulations

CANADA

Silver Nitrate (7761-88-8)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations
No additional information available

National regulations

Silver Nitrate (7761-88-8)
Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date : 02/20/2018
Other information : None.

Full text of H-phrases: see section 16:

| H272 May intensify fire; oxidizer |
| H302 Harmful if swallowed |
| H314 Causes severe skin burns and eye damage |
| H318 Causes serious eye damage |
| H400 Very toxic to aquatic life |
| H410 Very toxic to aquatic life with long lasting effects |

NFPA health hazard : 0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard Rating
Health : 0 Minimal Hazard - No significant risk to health
Flammability : 0 Minimal Hazard - Materials that will not burn
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protection : B
B - Safety glasses, Gloves
Silver Nitrate, 0.05N (0.05M)
Safety Data Sheet

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.