according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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1 Identification
Product identifier
· Trade name: <u>Silver Nitrate, 0.0282N (N/35.5),</u> · Product code: MTK-629-1G-C
 Recommended use and restriction on use Recommended use: Laboratory chemicals Restrictions on use: No relevant information available.
 Details of the supplier of the Safety Data Sheet Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com Distributor: Dubois Chemicals Inc. 3630 East Kemper Rd, Cincinnati, OH 45241 (800) 438-2647
• Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)

2 Hazard(s) identification

[•] Classification of the substance or mixture

The substance is not classified as hazardous according to the Globally Harmonized System (GHS).

- [•] Label elements
- · GHS label elements Not regulated.
- · Hazard pictograms: Not regulated.
- · Signal word: None.
- · Hazard statements: None.
- · Precautionary statements: None.

· Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

[•] Chemical characterization: Substances

· Compon	ents:	
7732-18-	5 Water	99.52%
7761-88-	3 silver nitrate	0.48%
	🛞 Ox. Sol. 2, H272	
	🊯 Met. Corr.1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318	
· Addition	al information:	
For the li	ted ingredient(s) the identity and/or exact percentage(s) are being withheld as a trade s	sacrat

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. (Cont'd. on page 2)

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For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- [•] Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Clean with water and soap.

If skin irritation is experienced, consult a doctor.

- After eye contact:
- Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting. Seek medical attention.

Most important symptoms and effects, both acute and delayed:

May cause gastro-intestinal irritation if ingested.

- Nausea in case of ingestion.
- · Danger: No relevant information available.
- Indication of any immediate medical attention and special treatment needed:
- If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- For safety reasons unsuitable extinguishing agents: No relevant information available.
- Special hazards arising from the substance or mixture

Substance/product is oxidizing when dry.

Formation of toxic gases is possible during heating or in case of fire.

• Advice for firefighters

• Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

[•] Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

For large spills, wear protective clothing.

Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders). Send for recovery or disposal in suitable receptacles.

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Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

[·] Handling

· Precautions for safe handling:

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

• Information about protection against explosions and fires: Substance/product is oxidizing when dry.

[•] Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Unsuitable material for receptacle: aluminium.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Do not store together with alkalis (caustic solutions).

Store away from metals.

Further information about storage conditions:

Keep containers tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

[·] Control parameters

Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

• Exposure controls

· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- Engineering controls: Provide adequate ventilation.
- Breathing equipment: Not required under normal conditions of use.
- Protection of hands:



Protective gloves

Material of gloves

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Butyl rubber, BR Natural rubber, NR Nitrile rubber, NBR Neoprene gloves Sensibilization by the components in the glove materials is possible. Latex, nitrile or neoprene gloves are recommended. • **Penetration time of glove material** The exact break through time has to be found out by the manufacturer of the

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear. **Body protection:** Protective work clothing

· Limitation and supervision of exposure into the environment No special requirements.

· Risk management measures No special requirements.

9 Physical and chemical properties				
[·] Information on basic physical a	nd chemical properties			
· Appearance:				
Form:	Liquid			
Color:	Colorless			
· Odor:	Odorless			
· Odor threshold:	Not determined.			
· pH-value:	Not determined.			
 Melting point/Melting range: 	0 °C (32 °F)			
 Boiling point/Boiling range: 	100-102 °C (212-151.6 °F)			
· Flash point:	The product is not flammable.			
· Flammability (solid, gaseous):	Not applicable.			
· Auto-ignition temperature:	Not determined.			
· Decomposition temperature:	Not determined.			
· Danger of explosion:	Product does not present an explosion hazard.			
· Explosion limits				
Lower:	Not determined.			
Upper:	Not determined.			
 Oxidizing properties: 	Not determined.			
· Vapor pressure:	Not determined.			
· Density at 20 °C (68 °F):	1.02 g/cm³ (8.51 lbs/gal)			
Relative density:	Not determined.			
· Vapor density:	Not determined.			
 Evaporation rate: 	Not determined.			
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		(Cont'd. of pa
Solubility in / Miscibility with Water:	Fully miscible.	
Partition coefficient (n-octano	I/water): Not determined.	
Viscosity Dynamic: Kinematic: Other information	Not determined. Not determined. No relevant information available.	
Stability and reactivity		
Avoid extreme heat. Possibility of hazardous re Reacts with certain metals. Reacts with alkali (lyes). Substance/product is oxidizing w	ored according to specifications. actions /hen dry. heated above the decomposition point. ve heat.	
Toxicological information	1	
• On the eye: Based on available • Sensitization: Based on available	ant for classification: None. e data, the classification criteria are not met. data, the classification criteria are not met. ole data, the classification criteria are not met.	
• IARC (International Agency fo None of the ingredients are lister	· ·	
• NTP (National Toxicology Pro		
None of the ingredients are liste		

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

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None of the ingredients are listed. **Probable route(s) of exposure:**

Ingestion.

Inhalation.

Eve contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity): No relevant information available.

· Repeated dose toxicity: No relevant information available.

• Germ cell mutagenicity: Based on available data, the classification criteria are not met.

· Carcinogenicity: Based on available data, the classification criteria are not met.

· Reproductive toxicity: Based on available data, the classification criteria are not met.

• STOT-single exposure: Based on available data, the classification criteria are not met.

- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information

[·] Toxicity

· Aquatic toxicity No relevant information available.

· Persistence and degradability No relevant information available.

· Bioaccumulative potential: No relevant information available.

• Mobility in soil: No relevant information available.

[•] Additional ecological information

· General notes:

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

Other adverse effects No relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

[·] Uncleaned packagings

• Recommendation: Disposal must be made according to official regulations.

· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

· UN-Number

· DOT, ADR/RID/ADN, IMDG, IATA

Not regulated.

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Trade name: Silver Nitrate, 0.0282N (N/35.5), (Cont'd. of page 6) UN proper shipping name · DOT, ADR/RID/ADN, IMDG, IATA Not regulated. Transport hazard class(es) · DOT, ADR/RID/ADN, IMDG, IATA · Class Not regulated. Packing group · DOT, ADR/RID/ADN, IMDG, IATA Not regulated. • Environmental hazards Not applicable. Special precautions for user Not applicable. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. **15 Regulatory information** Safety, health and environmental regulations/legislation specific for the substance or mixture · United States (USA) · SARA Section 302 (extremely hazardous substances): None of the ingredients are listed. · Section 313 (Specific toxic chemical listings): None of the ingredients are listed. · TSCA (Toxic Substances Control Act) 7761-88-8 silver nitrate 7732-18-5 Water · Proposition 65 (California) · Chemicals known to cause cancer: None of the ingredients are listed. Chemicals known to cause developmental toxicity for females: None of the ingredients are listed. · Chemicals known to cause developmental toxicity for males: None of the ingredients are listed. Chemicals known to cause developmental toxicity: None of the ingredients are listed. · EPA (Environmental Protection Agency): None of the ingredients are listed. · IARC (International Agency for Research on Cancer): None of the ingredients are listed. (Cont'd. on page 8)

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· Canadian Domestic Substances List (DSL):

None of the ingredients are listed.

This information is based on our present knowledge. However, this shall not constitute a guarantee for specific product features and shall not establish a legally valid contractual relationship.
Abbreviations and acronyms: ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent OSHA: Occupational Safety & Health Administration OX. Sol. 2: Oxidizing solids – Category 2 Met. Corr. 1: Corrosive to metals – Category 1 Skin Corr. 1B: Skin corrosion/irritation – Category 1B Eye Dam. 1: Serious eye damage/eye irritation – Category 1 Sources Website, European Chemicals Agency (echa.europa.eu) Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/hoc overview/home.do) Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org) Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., IS 978-0-07-176923-5. Safety Data Sheets, Individual Manufacturers
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