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

Printing date: March 19, 2019 Revision: March 04, 2019

1 Identification of the substance/mixture and of the company/undertaking

· Product identifier

· Trade name: Silver Nitrate, 0.02N (N/50)

· Product code: DUSN3360-P

· Recommended use and restriction on use

· Recommended use: Laboratory chemicals

· Restrictions on use: No further relevant information available.

Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier:

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331

Phone: (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 Hazards identification

· Classification of the substance or mixture

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

· Label elements

The product is not classified as hazardous according to OSHA GHS regulations within the United States.

- GHS label elements None.
- · Hazard pictograms None.
- · 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 characterisation: Mixtures

· Components:					
Ī	7732-18-5	Water		99.66%	
	7761-88-8	silver nitrate	© Ox. Sol. 2, H272 Met. Corr.1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318	0.34%	

· Additional information: For the wording of the listed Hazard Statements refer to section 16.

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

Printing date: March 19, 2019 Revision: March 04, 2019

Trade name: Silver Nitrate, 0.02N (N/50)

(Cont'd. from page 1)

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:

Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

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

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders when ingested.

- · Hazards: No further 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 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · For safety reasons unsuitable extinguishing agents: No further relevant information available.
- · Special hazards arising from the substance or mixture

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.
- · Methods and material for containment and cleaning up

Use limestone to neutralize and/or absorb spill.

Dispose of the material collected according to regulations.

· 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

(Cont'd. on page 3)

Page: 3/8

Safety Data Sheet

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

Printing date: March 19, 2019 Revision: March 04, 2019

Trade name: Silver Nitrate, 0.02N (N/50)

(Cont'd. from page 2)

- Handling:
- Precautions for safe handling

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

- · Information about fire and explosion protection: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Avoid storage near extreme heat.

Due to photo-sensitivity, store product in brown-glass receptacles.

Unsuitable material for receptacle: aluminium.

Unsuitable material for receptacle: steel.

· Information about storage in one common storage facility:

Store away from oxidisers, strong acids, strong bases.

Store away from metals.

Store away from foodstuffs.

- · Further information about storage conditions: Keep container tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Control parameters
- · Ingredients 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 are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

- Engineering controls: No further relevant information available.
- · Respiratory protection: Not required under normal conditions of use.
- · Protection of hands: Rubber gloves
- Material of gloves

Nitrile rubber, NBR

Butyl rubber, BR

Neoprene gloves

Natural rubber, NR

Sensibilisation by the components in the glove materials is possible.

· 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.

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

Printing date: March 19, 2019 Revision: March 04, 2019

Trade name: Silver Nitrate, 0.02N (N/50)

(Cont'd. from page 3)

9 Physical and	l chemical	properties
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· Information on basic physical and chemical properties

· Appearance

Form:
Colour:
Colour:
Odour:
Odour threshold:

Liquid
Colourless
Odourless
Not determined.

pH-value: Not determined.Melting point/freezing point: Not determined.

· Initial boiling point and boiling range: 100-101 °C (212-213.8 °F)

• Flash point: The product is not flammable.

Flammability (solid, gas): Not applicable.Auto/Self-ignition temperature: Not determined.

· Decomposition temperature: Not determined.

• **Explosive properties:** Product does not present an explosion hazard.

· Explosion limits

Lower: Not determined.
Upper: Not determined.
Oxidising properties Not determined.

· Vapour pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)

• Density at 20 °C (68 °F): 1.01 g/cm³ (8.43 lbs/gal) • Relative density: Not determined.

Vapour density: Not determined.Evaporation rate: Not determined.

· Solubility in / Miscibility with

water: Fully miscible.

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity

Dynamic: Not determined. **Kinematic:** Not determined.

Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability Stable under normal temperatures and pressures.
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· Possibility of hazardous reactions

Reacts with certain metals.

Reacts with strong acids and alkali.

(Cont'd. on page 5)

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

Printing date: March 19, 2019 Revision: March 04, 2019

Trade name: Silver Nitrate, 0.02N (N/50)

(Cont'd. from page 4)

Develops toxic gases/fumes.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials No further relevant information available.
- · Hazardous decomposition products

Under fire conditions only: Nitrogen oxides (NOx)

Toxic metal oxide smoke

Possible in traces.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.
- · LD/LC50 values relevant for classification: None.
- · Primary irritant effect
- · Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
- · IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

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

None of the ingredients are listed.

· Probable routes of exposure:

Ingestion.

Inhalation.

Eve contact.

Skin contact.

- · Acute effects (acute toxicity, irritation and corrosivity): No further relevant information available.
- · Repeated dose toxicity: No further 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: Toxic for aquatic organisms
- · Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:

(Cont'd. on page 6)

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

Printing date: March 19, 2019 Revision: March 04, 2019

Trade name: Silver Nitrate, 0.02N (N/50)

(Cont'd. from page 5)

· General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. Toxic for aquatic organisms

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

Smaller quantities can be disposed of with household waste.

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 packaging:
- · Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information		
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Not Regulated	
 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 Anne Marpol and the IBC Code	ex II of Not applicable.	

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

(Cont'd. on page 7)

Page: 7/8

Safety Data Sheet

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

Printing date: March 19, 2019 Revision: March 04, 2019

Trade name: Silver Nitrate, 0.02N (N/50)

(Cont'd. from page 6)

- · United States (USA)
- ·SARA
- · Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (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):

All ingredients are listed.

- · 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.

· Canadian Domestic Substances List (DSL) (Substances not listed)

All ingredients are listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any 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

PBT: Persistant, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

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

(Cont'd. on page 8)

Page: 8/8

Safety Data Sheet

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

Printing date: March 19, 2019 Revision: March 04, 2019

Trade name: Silver Nitrate, 0.02N (N/50)

(Cont'd. from page 7)

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/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., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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