



HI 70448
0.02M Silver Nitrate Solution
Safety Data Sheet

According to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66

Revision Date: 2012-06-01
Reason for Revision: Reviewed Only

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 70448 0.02M Silver Nitrate Solution

Application: Titration Reagent

Company Information (USA):

Hanna Instruments, Inc.
584 Park East Dr, Woonsocket, Rhode Island, USA 02895

Technical Service Contact Information:

1-800-426-6287 (8:30AM - 5:00PM ET)
+1-401-766-4260 (8:30AM - 5:00PM ET)

USA Emergency Contact Information:

1-800-424-9300 (Chemtrec 24Hr. Emergency)

International Emergency Contact Information:

+1-703-527-3887 (Chemtrec 24Hr. Emergency)

E-mail Address:

tech@hannainst.com

SECTION 2: HAZARD IDENTIFICATION

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component: Silver Nitrate

EC-No.: 231-853-9

CAS-No.: 7761-88-8

Hazard: C, N

Phrases: R: 34-50/53

Content: > 0.1% - < 2.5%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air.

After Skin Contact: Wash affected area with plenty of water. Remove contaminated clothing.

After Eye Contact: Rinse out immediately with plenty of water and seek medical advice if necessary.

After Swallowing: Drink plenty of water. Seek medical advice.

General Information: Remove contaminated, soaked clothing immediately and dispose of safely.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Water spray, Carbon Dioxide, Dry Chemical Powder, Appropriate Foam.

Special Risks:

Ambient fire may liberate hazardous vapors. The following may develop in event of fire: Silver/Silver Oxides, Nitrogen Oxides, Oxygen

Special Protective Equipment:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Additional Information:

Non-combustible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Do not inhale vapors. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

Environmental Precautions:

Take up with liquid-absorbent material.

Additional Notes:

Clean up affected area and dispose according to local regulation.

SECTION 7: HANDLING AND STORAGE

Handling:

Cannot be stored indefinitely. Stable in the recommended storage conditions.

Storage:

Tightly closed. Store at room temperature (+15 to +25 °C recommended). Protect from light. Accessible only for authorized persons.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Silver Nitrate					
TWA (8hr)	0.01 mg (Ag)/m ³	Belgium	TWA (8hr)	0.01 mg (Ag)/m ³	Canada (Ontario)
TWA (8hr)	0.01 mg (Ag)/m ³	Canada (Quebec)	TWA (8hr)	0.01 mg (Ag)/m ³	France
TWA (8hr)	0.01 mg (Ag)/m ³	Germany	TWA (8hr)	0.01 mg (Ag)/m ³	Greece
TWA (8hr)	0.01 mg (Ag)/m ³	Hungary	TWA (8hr)	0.01 mg (Ag)/m ³	Italy
TWA (8hr)	0.01 mg (Ag)/m ³	Netherlands	TWA (8hr)	0.01 mg (Ag)/m ³	Poland
TWA (8hr)	0.01 mg (Ag)/m ³	Portugal	TWA (8hr)	0.01 mg (Ag)/m ³	Romania
TWA (8hr)	0.01 mg (Ag)/m ³	Spain	TWA (8hr)	0.01 mg (Ag)/m ³	UK
TWA (8hr)	0.01 mg (Ag)/m ³	USA (ACGIH)	TWA (8hr)	0.01 mg (Ag)/m ³	USA (OSHA)

Engineering:

Safety shower and eye wash.

Personal Protective Equipment:

As appropriate to quantity handled.

Respiratory Protection:

Required when vapors/aerosols are generated. Work under hood.

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Wash thoroughly after handling. Remove and wash contaminated clothing promptly. Discard contaminated shoes.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Odorless	Density at 20°C:	1.00 g/cm ³
Melting Point:	NA	Boiling Point:	~ 100 °C	Solubility:	Soluble
pH at 20°C:	~ 6	Explosion Limit:	NA	Flash Point:	NA
Thermal Decomp.:	NA				

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SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Strong Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Not available

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

The generally known reaction partners of water

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

Quantitative data on the toxicity of this product is not available.

Potential Health Effects:

Skin Contact: Slight irritations.

Eye Contact: Slight irritations.

Ingestion: Symptoms in gastrointestinal tract.

Further Data: Further hazardous properties cannot be excluded. The product should be handled with the usual care when dealing with chemicals.

Component Toxicity

Acute Toxicity:

Silver Nitrate

LD50: Oral - Rat - 1173 mg/kg

Chronic Toxicity:

Not Available

Additional Data:

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Silver Nitrate – as the pure substance:

Remarks: behavioural: Tetany. Lungs, Thorax, or Respiration: cyanosis. Gastrointestinal: hyper motility, diarrhea.

SECTION 12: ECOLOGICAL INFORMATION

Quantitative data on the toxicity of this product is not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Silver Nitrate – as the pure substance:

Ecotoxicological effects

Test Type: LC50 Fish, Species: Pimephales promelas (Fathead minnow), time: 96 h: value: 40 mg/L

Test Type: EC50 Daphnia, Species: Daphnia magna, time: 48 h: value: 15 mg/L

Further Data: Biological effects: Harmful effects on aquatic organisms. May cause long-term adverse effects in the aquatic environment. Do not allow to enter waters, waste waters, or soil!

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice. Handle contaminated packaging in the same way as the substance itself.

SECTION 14: TRANSPORTATION INFORMATION

Land:

Not subject to transport regulations

Sea:

Not subject to transport regulations

Air:

Not subject to transport regulations

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Canadian Regulation SOR/88-66**SECTION 15: REGULATORY INFORMATION****Labeling according to EC Directives:****Symbol:** Not applicable**R-phrases:** 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**S-phrases:** 61: Avoid release to the environment. Refer to special instructions/Safety data sheets.**SECTION 16: OTHER INFORMATION****Text of R-phrases under Section 3**

34: Causes burns.

50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Revision Information**Revision Date:** 2012-06-01**Supersedes edition of:** 2009-06-10**Reason for revision:** Reviewed Only**Legend**

NA: Not Applicable

ND: Not Determined

THE INFORMATION CONTAINED HEREIN IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE. IT CHARACTERIZES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT.