

Revision Date: 2008-12-01

Reason for Revision: REACH Compliance and General Update

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 70429 0.05M Silver Nitrate Solution

Additional Product Codes:

Application: For Chemical Analysis

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: > 0.25% - < 2.5%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air.

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

After Eye Contact: Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Call in ophthalmologist if necessary.

After Swallowing: Make victim drink plenty of water (if necessary several liters), avoid vomiting (risk of perforation!). Call in physician.

General Information: Not available

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

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

Special Risks:

Non-combustible.

Special Protective Equipment:

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

Additional Information:

Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions:**

Do not inhale vapors/aerosols.

Environmental Precautions:

Take up with liquid-absorbent material.

Additional Notes:

None

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.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**Ingredients:**

UK
Name: Silver soluble compounds (as Ag)
Type: LTEL
Value: 0.01 mg/m³

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be established with the respective supplier.

Respiratory Protection:

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

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Colorless liquid

Odor: Odorless

Density at 20° C: 1.0 g/cm³

Melting Point: NA

Boiling Point: ND

Solubility: Soluble

pH at 20° C: ~ 4-5

Explosion Limit: NA

Flash Point: NA

Thermal Decomp.: NA

SECTION 10: STABILITY AND REACTIVITY**Conditions to be Avoided:**

Strong Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Light sensitive.

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

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:

Acute toxicity

LD50 (oral, rat): 1173 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): burns.

Skin irritation test (rabbit): burns.

Subacute to chronic toxicity

Bacterial mutagenicity: Salmonella typhimurium: negative.

In Case of Inhalation:

In Case of Skin Contact: Slight irritations.

In Case of Eye Contact: Slight irritations.

In Case of Ingestion: Symptoms in: gastrointestinal tract.

Further Data: The following applies to soluble silver compounds: only slightly absorbed via the gastrointestinal tract. Strong irritations after contact with eyes and skin. Property of this product must be anticipated on the basis from the components of the preparation:

SECTION 12: ECOLOGICAL INFORMATION

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

APPLICABLE TO PARTIAL COMPONENT:

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

Biological effects:

Harmful effect on aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

Further ecologic data:

The following applies to silver compounds in general: biological effects: silver ions toxic for aquatic organisms; bacteria: *Ps. putida* toxic as from 0.006 mg/L; protozoa: *U. parduczi* toxic as from 0.1 mg/L; arthropods: *D. daphnia* EC50: 0.004 mg/L; algae: *M. aeruginosa* toxic as from 0.0007 mg/L; *Sc. quadricauda* toxic as from 0.009 mg/L.

Further Data: Do not allow to enter waters, waste water, 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

SECTION 15: REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol: None

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.

Contains:

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: 2008-12-01
Supersedes edition of: 2006-06-12
Reason for revision: REACH Compliance and General Update

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.