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HI 38015C-0
Chloride Reagent C

Safety Data Sheet

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

Revision Date: 2009-06-10

Reason for Revision: 29 CFR 1910.1200 and SOR/88-66 Compliance

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 38015C-0 Chloride Reagent C

Application: Determination of Chloride in Water Samples

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

Causes burns. Toxic 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: > 10% - < 25%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air. Call in physician.

After Skin Contact: Wash affected area with plenty of water. Dab with polyethylene glycol 400

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

After Swallowing: Make victim drink plenty of water (if necessary several liters), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

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:

Non-combustible. Ambient fire may liberate hazardous vapors. The following may develop in event of fire: Nitrogen Oxides

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.

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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:

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:

Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands and face after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Odorless	Density at 20° C:	1.08 g/cm ³
Melting Point:	NA	Boiling Point:	ND	Solubility:	Soluble
pH at 20° C:	7	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:

Light sensitive.

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Violent reactions possible with: ammonia, organic substances / decomposition, sulfides, carbon (charcoal)

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

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

Potential Health Effects:

Inhalation: Burns of mucous membranes. coughing and dyspnoea.

Skin Contact: Burns.

Eye Contact: Burns, Risk of permanent damage due to staining of the cornea.

Ingestion: Burns in mouth, throat, oesophagus and 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. The following applies to nitrites/nitrates in general: methaemoglobinaemia after the uptake of large quantities. Further hazardous properties cannot be excluded. The product should be handled with the usual care when dealing with chemicals.

Component Toxicity

Acute Toxicity:

Chronic Toxicity:

Not Available

Silver Nitrate

LD50: Oral - Rat - 1173 mg/kg

Additional Data:

Not Available

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:

Biologic degradation:

Methods for the determination of biodegradability are not applicable to inorganic substances.

Behavior in environmental compartments:

Distribution: log p(o/w): 0.19 (calculated).

No bioaccumulation is to be expected (log P(o/w) <1).

BCF: 200;

Highly bioaccumulative (BCF 100-1000).

Ecotoxic effects:

Biological effects:

Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Forms corrosive mixtures with water even if diluted.

Fish toxicity: *L.idus* LC50: 0.029 mg/L /96 h; *Onchorhynchus mykiss* LC50: 0.006 mg/L /96 h.

Daphnia toxicity: *Daphnia magna* EC50: 0.002 mg/L /48 h.

Algal toxicity: *Scenedesmus* sp. IC50: 0.008 mg/L /8 d.

Bacterial toxicity: *Ps.putida* EC10: 0.006 mg/L /16 h.

Protozoa: protozoen EC10: 0.003 mg/L /48 h.

Further Data: Do not allow to enter waters, waste waters, or soil!

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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:

ADR/RID: 9, II
UN-No.: 3316
Name : CHEMICAL KIT

Sea:

IMDG: 9/UN 3316/PG II
Name : CHEMICAL KIT
Marine pollutant: no

Air:

ICAO/IATA: 9/UN 3316/PG II
Name: CHEMICAL KIT

Transport data applies to the COMPLETE KIT!

SECTION 15: REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol: C: Corrosive
N: Dangerous for the environment

R-phrases: 34-51/53: Causes burns. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases: 26-45-60-61: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains: Silver nitrate

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: 2009-06-10
Supersedes edition of: 2008-12-01
Reason for revision: 29 CFR 1910.1200 and SOR/88-66 Compliance

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.