

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 70430A-0 Free Chlorine Indicator Reagent

Application: Determination of Free Chlorine in Process Applications

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

Non-hazardous product as specified in Directives 67/548/EEC and 1999/45/EC.
Non-hazardous product as specified in OSHA Regulation 29 CFR 1910.1200.
Non-hazardous product as specified in Canadian Regulation SOR/88-66.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component: Sulfuric Acid

EC-No.: 231-639-5

CAS-No.: 7664-93-9

Hazard: C

Phrases: R: 35

Content: > 1% - < 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 with the eyelid held wide open. Call in ophthalmologist.

After Swallowing: Make victim drink plenty of water (if necessary several liters), 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. Development of hazardous combustion gases or vapors possible in the event of fire. The following may develop in the event of fire: Sulfur Oxides

Special Protective Equipment:

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

Additional Information:

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Do not inhale vapors/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.
 Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Environmental Precautions:

Do not allow to enter sewerage system.

Additional Notes:

Take up with liquid-absorbent material. Clean up affected area and dispose according to local regulation.

SECTION 7: HANDLING AND STORAGE

Handling:

Avoid generation of vapors/aerosols. Do not inhale substance.

Storage:

Store at room temperature (+15 to +25 °C). Tightly closed in a dry and well-ventilated place.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

<i>Type</i>	<i>Value</i>	<i>Source</i>	<i>Type</i>	<i>Value</i>	<i>Source</i>
Sulfuric Acid					
TWA (8hr)	1 mg/m ³	Belgium	TWA (8hr)	0.2 mg/m ³	Canada (Ontario)
TWA (8hr)	1 mg/m ³	Canada (Quebec)	TWA (8hr)	1 mg/m ³	France
TWA (8hr)	1 mg/m ³	Greece	TWA (8hr)	1 mg/m ³	Hungary
TWA (8hr)	0.5 mg/m ³	Poland	TWA (8hr)	0.2 mg/m ³	Portugal
TWA (8hr)	0.5 mg/m ³	Romania	TWA (8hr)	1 mg/m ³	Spain
TWA (8hr)	0.2 mg/m ³	USA (ACGIH)	TWA (8hr)	1 mg/m ³	USA (OSHA)

Engineering:

Safety shower and eye wash.

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 ascertained 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: 1.01 g/cm ³
Melting Point: NA	Boiling Point: ND	Solubility: Soluble
pH at 20° C: ~ 1.0	Explosion Limit: ND	Flash Point: ND
Thermal Decomp.: NA		

SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Has a corrosive effect; incompatible with metals, animal/vegetable tissues.

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Alkali metals, alkali compounds, ammonia, alkaline earth metals, alkaline earth compounds, alkalis, acids, metals, metal alloys, combustible substances, organic solvents, halogenates, permanganates

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

Subacute to chronic toxicity
 Applicable to partial component(s):
 Bacterial mutagenicity: Ames test: negative.
 No teratogenic effect in animal experiments.

Potential Health Effects:

- Skin Contact:** Irritative response if not handled appropriately.
- Eye Contact:** Corneal lesions may occur under certain circumstances.
- Ingestion:** Damage to the affected mucous membranes possible.
- Further Data:** The product should be handled with the usual care when dealing with chemicals. further hazardous properties cannot be excluded.

Component Toxicity

Acute Toxicity:

Sulfuric Acid

LC50: Inhalation - Rat - 510 mg/m³
LD50: Oral - Rat - 2140 mg/kg

Chronic Toxicity:

Sulfuric Acid

NTP: Known to be carcinogenic to humans

Additional Data:

Not Available

SECTION 12: ECOLOGICAL INFORMATION

Quantitative data on the ecological effect of this product is not available.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to sulfuric acid: biological effects: harmful effect on aquatic organisms. Harmful effect due to pH shift. Toxic effect on fish and algae. Caustic even in diluted form. Does not cause biological oxygen deficit. Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities. Neutralization possible in waste water treatment plants.
 Daphnia toxicity: Daphnia magna EC50: 29 mg/L/24 h (calculated on the pure substance).

Further Data: No ecological problems are to be expected when the product is handled and used with due care and attention.

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: 8 PGIII
UN-N: 1760
Name: CORROSIVE LIQUID, n.o.s.

Sea:

IMDG: 8/UN 1760/PGIII
Name: CORROSIVE LIQUID, n.o.s.

Air:

ICAO/IATA: 8/UN 1760/PGIII
Name: CORROSIVE LIQUID, n.o.s.

Transport data applies to the COMPLETE KIT!

SECTION 15: REGULATORY INFORMATION**Labeling according to EC Directives:**

Non-hazardous according to Directives 67/548/EEC and 1999/45/EC.

SECTION 16: OTHER INFORMATION**Text of R-phrases under Section 3**

35: causes severe burns.

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.