

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

**Revision Date:** 2012-04-24  
**Reason for Revision:** Section 14 Updated

**SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY**

**Product Name:** HI 38014-0 Alkalinity Reagent

**Application:** Determination of Total Alkalinity

**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: Sulphur 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.

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## 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

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

<b>Appearance:</b>	Colorless liquid	<b>Odor:</b>	Odorless	<b>Density at 20°C:</b>	1.01 g/cm <sup>3</sup>
<b>Melting Point:</b>	NA	<b>Boiling Point:</b>	ND	<b>Solubility:</b>	Soluble
<b>pH at 20°C:</b>	~ 1.0	<b>Explosion Limit:</b>	ND	<b>Flash Point:</b>	ND
<b>Thermal Decomp.:</b>	NA				

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

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### **Component Toxicity**

#### **Acute Toxicity:**

##### **Sulfuric Acid**

**LC50:** Inhalation - Rat - 510 mg/m<sup>3</sup>

**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).

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

### **Further Data:**

Biologic degradation:

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

Behavior in environmental compartments:

Concentration in organisms is not to be expected.

## **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.

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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:**

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

**S-phrases:** 24/25: Avoid contact with skin and eyes.**SECTION 16: OTHER INFORMATION****Text of R-phrases under Section 3**

35: Causes severe burns.

**Revision Information****Revision Date:** 2012-04-24**Supersedes edition of:** 2009-06-10**Reason for revision:** Section 14 Updated**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.**