

**Revision Date:** 2012-05-31  
**Reason for Revision:** Section 14 Updated

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

**Product Name:** HI 770B-25 Silica High Range Reagent B

**Additional Product Codes:** HI 770-25

**Application:** Determination of Silica 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**

Irritating to eyes and skin. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**According to Regulation (EC) No. 1272/2008:**

**Classification:** Skin Irritation (Category 2)  
 Eye Irritation (Category 2)  
 Chronic Aquatic Toxicity (Category 3)

**Signal Word:** **Warning**

**Pictograms:**



**Hazard Statements:** H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H412: Harmful to aquatic life with long lasting effects.

**Precaution Statements:** P273: Avoid release to the environment.  
 P302+P352: If on skin: wash with plenty of soap and water.  
 P305+P351+P338: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**According to Directives 67/548/EEC and 1999/45/EC:**

**Symbol:** Xi: Irritant

**R-phrases:** 36/38-52/53: Irritating to eyes and skin. Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**S-phrases:** 26-28.1-61: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Avoid release to the environment. Refer to special instructions/Safety data sheet.

### **SECTION 3: COMPOSITION AND COMPONENT INFORMATION**

<b>Component:</b>	<b>EC No:</b>	<b>CAS No:</b>	<b>Hazard Class:</b>	<b>Phrases:</b>	<b>Concentration:</b>
Sulfamic acid	226-218-8	5329-14-6	Eye Irrit. 2 Skin Irrit. 2 Aquatic Chronic 3 Xi	H315, H319, H412 R: 36/38-52/53	> 50% - < 75%

**Safety Data Sheet**

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

**SECTION 4: FIRST AID MEASURES**

- After Inhalation:** Remove to fresh air.
- After Skin Contact:** Wash off with plenty of water. Remove contaminated clothing.
- After Eye Contact:** Rinse out with plenty of water with the eyelid held wide open. Call ophthalmologist.
- After Swallowing:** Drink plenty of water. Call 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 event of fire: sulfur oxides, 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 vapors with water. Prevent fire residues and contaminated fire fighting water from entering surface water or groundwater.

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

Avoid generation of dusts. Do not inhale dusts. Avoid contact with substance.

**Environmental Precautions:**

Do not discharge into the drains, surface waters, or groundwaters.

**Additional Notes:**

Take up dry. Clean up affected area and dispose according to local regulation.

**SECTION 7: HANDLING AND STORAGE****Handling:**

Avoid generation of dusts. Work under hood.

**Storage:**

Keep container tightly closed. Store in well-ventilated place. Store at room temperature (+15°C to +25°C).

**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION****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 determined with the respective supplier.

**Respiratory Protection:**

Required when dusts are generated.

**Protective Gloves:**

Rubber or plastic

**Eye Protection:**

Goggles or face mask

**Industrial Hygiene:**

Immediately change contaminated clothing. Wash hands and face after working with substance.

**SECTION 9: PHYSICAL/CHEMICAL PROPERTIES**

<b>Appearance:</b>	White powder	<b>Odor:</b>	Odorless	<b>Density at 20°C:</b>	ND
<b>Melting Point:</b>	205°C	<b>Boiling Point:</b>	NA	<b>Solubility:</b>	213 g/L at 20°C
<b>pH at 20°C:</b>	1.2 at 10 g/L	<b>Explosion Limit:</b>	NA	<b>Flash Point:</b>	NA
<b>Thermal Decomp.:</b>	209°C				

**SECTION 10: STABILITY AND REACTIVITY**

**Conditions to be Avoided:**

Strong heating

**Hazardous Polymerization:**

Will not occur.

**Further Information:**

Stable in the recommended storage conditions.

**Hazardous Decomposition Products:**

In the event of fire: See section 5.

**Substances to be Avoided:**

Halogens, alkali metals, oxidizing agents, metals with water.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**Product Toxicity**

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

**Potential Health Effects:**

**Inhalation:** Irritation symptoms in the respiratory tract. Coughing, dyspnoea.

**Skin Contact:** Irritations.

**Eye Contact:** Severe irritations.

**Ingestion:** Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract.

**Further Data:** The product should be handled with the usual care when dealing with chemicals.

**Component Toxicity**

**Acute Toxicity:**

**Sulfamic Acid**

**LD50:** Oral - Rat - 3160 mg/kg

**Chronic Toxicity:**

Not Available

**Additional Data:**

APPLICABLE TO MAIN COMPONENT(S):

The following applies to Sulfamic acid, as the pure substance:

Specific symptoms in animal studies:

Eye irritation test (rabbit): Severe irritations (OECD 405).

Skin irritation test (rabbit): Irritations (OECD 404).

Subacute to chronic toxicity

No sensitizing effect.

Bacterial mutagenicity: Ames test: negative.

Mutagenicity (mammal cell test): micronucleus negative

#### **SECTION 12: ECOLOGICAL INFORMATION**

Quantitative data on the ecological effect of this product are not available.  
 APPLICABLE TO MAIN COMPONENT(S):  
 The following applies to Sulfamic acid, as the pure substance:  
 Distribution: log p(o/w): -4.34 (calculated).  
 No bioaccumulation is to be expected (log P(o/w) <1).  
 Biological effects:  
 Harmful effect on aquatic organisms. May cause long-term adverse effects in the aquatic environment.  
 Harmful effect due to pH shift.  
 Fish toxicity: P.promelas LC50: 70.3 mg/L/96 h.  
 Bacterial toxicity: Ps.putida EC10: 1000 mg/L/16 h.  
**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**

	<b>Land (ADR/RID):</b>	<b>Sea (IMDG):</b>	<b>Air (ICAO/IATA):</b>
<b>UN No.:</b>	2967	2967	2967
<b>Proper Shipping Name:</b>	Sulphamic acid	Sulphamic acid	Sulphamic acid
<b>Class (Sub Risk):</b>	8	8	8
<b>Packing Group:</b>	III	III	III

#### **SECTION 15: REGULATORY INFORMATION**

Complies with European Regulations (EC) No. 1907/2006 and No. 1272/2008.  
 Complies with European Council Directives 67/548/EEC and 1999/45/EC.  
 Complies with OSHA Regulation 29 CFR 1910.1200.  
 Complies with Canadian Regulation SOR/88-66

#### **SECTION 16: OTHER INFORMATION**

##### ***Text of phrases under Section 3***

R36/38: Irritating to eyes and skin.  
 R52/53: May cause long-term adverse effects in the aquatic environment.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H412: Harmful to aquatic life with long lasting effects.

##### ***Revision Information***

**Revision Date:** 2012-05-31  
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##### ***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.**