

**Revision Date:** 2012-06-21  
**Reason for Revision:** (1st edition)

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

**Product Name:** HI 749-0 Chromium VI Low Range Reagent      **Additional Product Codes:** HI 749-25

**Application:** Determination of Hexavalent Chromium 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 severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.

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

**Classification:** Skin Corrosion (Category 1B)  
 Chronic Aquatic Toxicity (Category 3)

**Signal Word:** **Danger**

**Pictograms:**



**Hazard Statements:** H314: Causes severe skin burns and eye damage.  
 H412: Harmful to aquatic life with long lasting effects.

**Precaution Statements:** P273: Avoid release to the environment.

**Precaution Statements:** P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 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:** C: Corrosive

**R-phrases:** 34-52/53: Causes burns. 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>
Potassium disulfate	232-216-8	7790-62-7	Skin Corr. 1B C	H314 R: 34	> 50% - < 75%
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	> 25% - < 50%

**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. Call a physician if breathing becomes difficult.
- After Skin Contact:** Wash affected area with plenty of water. Remove contaminated clothing.
- After Eye Contact:** Rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist.
- After Swallowing:** Make victim drink plenty of water. 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 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 formation of dusts. Do not inhale dusts. Avoid substance contact.
- Environmental Precautions:**  
Do not discharge into drains/surface waters/groundwater.
- Additional Notes:**  
Take up dry. Clean up affected area and dispose according to local regulation. Avoid generation of dusts.

**SECTION 7: HANDLING AND STORAGE**

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|---|--|
| <b>Handling:</b><br>Avoid generation of dusts. Work under hood. | <b>Storage:</b><br>Store at room temperature (+15 to +25 °C recommended). Tightly closed in a dry and well-ventilated place. |
|---|--|

**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.
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|--|--|--|
| <b>Respiratory Protection:</b><br>Required when dusts are generated. | <b>Protective Gloves:</b><br>Rubber or plastic | <b>Eye Protection:</b><br>Goggles or face mask |
|--|--|--|
- Industrial Hygiene:**  
Change contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands after working with substance.

## Safety Data Sheet

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

### **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>	1.0 – 1.5 at 20 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, alkalis, oxidizing agents, metals with water

### **SECTION 11: TOXICOLOGICAL INFORMATION**

**Product Toxicity**

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

**Potential Health Effects:**

<b>Inhalation:</b>	Irritation symptoms in the respiratory tract. Coughing, dyspnoea.
<b>Skin Contact:</b>	Irritations.
<b>Eye Contact:</b>	Severe irritations.
<b>Ingestion:</b>	Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract.
<b>Further Data:</b>	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:  
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 is not available.  
**APPLICABLE TO MAIN COMPONENT:**  
 The following applies to Sulfamic acid, 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): -4.34 (calculated).  
 No bioaccumulation is to be expected (log P(o/w) <1).  
**Ecotoxic effects:**  
**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 waters, 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>	3260	3260	3260
<b>Proper Shipping Name:</b>	Corrosive solid, acidic, inorganic, n.o.s. (potassium disulfate/sulphamic acid mixture)	Corrosive solid, acidic, inorganic, n.o.s. (potassium disulfate/sulphamic acid mixture)	Corrosive solid, acidic, inorganic, n.o.s. (potassium disulfate/sulphamic acid mixture)
<b>Class (Sub Risk):</b>	8	8	8
<b>Packing Group:</b>	II	II	II

**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**

R34: Causes burns.  
 R36/38: Irritating to eyes and skin  
 R52/53: Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.  
 H314: Causes severe skin burns and eye damage.  
 H315: Causes skin irritation.  
 H319: Causes serious eye irritation.  
 H412: Harmful to aquatic life with long lasting effects.

**Revision Information**

**Revision Date:** 2012-06-21  
**Supersedes edition of:** (1st edition)  
**Reason for revision:** (1st edition)

**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.**