



## Safety Data Sheet

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

**Revision Date:** 2012-05-21  
**Reason for Revision:** Section 14 Updated

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

**Product Name:** HI 93719B-0 Magnesium Hardness Reagent B,  
Alkali Solution

**Application:** Determination of Magnesium Hardness 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 burns.

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

**Component:** Sodium Hydroxide

**EC-No.:** 215-185-5

**CAS-No.:** 1310-73-2

**Hazard:** C

**Phrases:** R: 35

**Content:** > 15% - < 30%

### **SECTION 4: FIRST AID MEASURES**

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

**After Skin Contact:** Wash affected area with plenty of water. Immediately remove contaminated clothing.

**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. Immediately call in physician.

**General Information:** Remove contaminated, soaked clothing immediately and dispose of safely.

### **SECTION 5: FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media:**

Foam, Dry Powder, Carbon Dioxide

**Special Risks:**

Non-combustible. Development of hazardous combustion gases possible in the event of fire.

**Special Protective Equipment:**

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

**Additional Information:**

NA

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### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:**

Avoid substance contact. Do not inhale vapors. Ensure supply of fresh air in enclosed rooms.

**Environmental Precautions:**

Do not discharge into the drains/surface waters/groundwater.

**Additional Notes:**

Take up with liquid-absorbent material.

### **SECTION 7: HANDLING AND STORAGE**

**Handling:**

Work under hood. Do not inhale substance. Avoid generation of vapors/aerosols. Accessible only for authorized persons.

**Storage:**

Tightly closed. In a well ventilated place. Store at room temperature (+15 to +25 °C recommended).

### **SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**

Type	Value	Source	Type	Value	Source
<b>Sodium Hydroxide</b>					
Ceiling	2 mg/m <sup>3</sup>	Belgium	Ceiling	2 mg/m <sup>3</sup>	Canada (Ontario)
Ceiling	2 mg/m <sup>3</sup>	Canada (Quebec)	TWA (8hr)	2 mg/m <sup>3</sup>	France
TWA (8hr)	2 mg/m <sup>3</sup>	Greece	TWA (8hr)	2 mg/m <sup>3</sup>	Hungary
TWA (8hr)	0.5 mg/m <sup>3</sup>	Poland	Ceiling	2 mg/m <sup>3</sup>	Portugal
TWA (8hr)	1 mg/m <sup>3</sup>	Romania	Ceiling	2 mg/m <sup>3</sup>	Spain
TWA (15min)	2 mg/m <sup>3</sup>	UK	Ceiling	2 mg/m <sup>3</sup>	USA (ACGIH)
TWA (8hr)	2 mg/m <sup>3</sup>	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.

**Respiratory Protection:**

Required when vapors/aerosols are generated. Work under hood.

**Protective Gloves:**

Rubber or plastic

**Eye Protection:**

Goggles or face mask

**Industrial Hygiene:**

Change contaminated clothing. Apply skin-protective barrier cream. Wash hands after working with substance.

### **SECTION 9: PHYSICAL/CHEMICAL PROPERTIES**

<b>Appearance:</b>	Colorless liquid	<b>Odor:</b>	Odorless	<b>Density at 20°C:</b>	1.25 g/cm <sup>3</sup>
<b>Melting Point:</b>	ND	<b>Boiling Point:</b>	ND	<b>Solubility:</b>	Soluble
<b>pH at 20°C:</b>	Strongly basic	<b>Explosion Limit:</b>	NA	<b>Flash Point:</b>	NA
<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:**

Not available

**Hazardous Decomposition Products:**

No information available.

**Substances to be Avoided:**

Metals, oxidizing agents, reducing agents

### **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.

**Skin Contact:** Burns.

**Eye Contact:** Burns. Risk of blindness!

**Ingestion:** Burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach. Burns.

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

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**Component Toxicity**

**Acute Toxicity:**

Not Available

**Chronic Toxicity:**

Not Available

**Additional Data:**

APPLICABLE TO MAIN COMPONENT:

The following applies to Sodium hydroxide – as the pure substance

Acute toxicity

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

Specific symptoms in animal studies:

Eye irritation test (rabbit): burns.

Skin irritation test (rabbit): burns.

Subacute to chronic toxicity

Mutagenicity (mammal cell test): micronucleus negative.

Bacterial mutagenicity: Escherichia coli: negative.

Bacterial mutagenicity: Ames test: negative.

No teratogenic effect in animal experiments.

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

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

APPLICABLE TO MAIN COMPONENT:

The following applies to Sodium hydroxide – as the pure substance

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.

Ecotoxic effects:

Biological effects:

Harmful effect on aquatic organisms. Toxic effect on fish and plankton. Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Does not cause biological oxygen deficit.

Neutralization possible in waste water treatment plants.

Fish toxicity: Onchorhynchus mykiss LC 50: 45.4 mg/L /96 h (in hard water). L.macrochirus LC 50: 99 mg/L /48h.

Daphnia toxicity: Daphnia magna EC 50: 76 mg/L /24 h.

**Further Data:** Do not allow to enter waters, waste water, 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**

	<i>Land (ADR/RID):</i>	<i>Sea (IMDG):</i>	<i>Air (ICAO/IATA):</i>
<b>UN No.:</b>	1824	1824	1824
<b>Proper Shipping Name:</b>	Sodium hydroxide solution	Sodium hydroxide solution	Sodium hydroxide solution
<b>Class (Sub Risk):</b>	8	8	8
<b>Packing Group:</b>	II	II	II

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

**Labeling according to EC Directives:**

**Symbol:** C: Corrosive

**R-phrases:** 35: Causes severe burns.

**S-phrases:** 26-37/39-45: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Contains:** Sodium hydroxide

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

**Text of R-phrases under Section 3**

35: Causes severe burns.

**Revision Information**

**Revision Date:** 2012-05-21

**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.**