

Revision Date: 2010-12-01
Reason for Revision: Regulation (EC) No. 1272/2008 Compliance

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 38000B-0 Sulfate Reagent B

Application: Determination of Sulfate 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

Harmful by inhalation. Toxic if swallowed.

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

Classification: Acute Toxicity, Oral (Category 3)
Acute Toxicity, Inhalation (Category 4)

Signal Word: Danger

Pictograms:



Hazard Statements: H301: Toxic if swallowed.
H332: Harmful if inhaled.

Precaution Statements: P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338: IF IN EYES: 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: T: Toxic

R-phrases: 20-25: Harmful by inhalation. Toxic if swallowed.

S-phrases: 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component:	EC No:	CAS No:	Hazard Class:	Phrases:	Concentration:
Barium chloride dihydrate	233-788-1	10326-27-9	Acute Tox. 3 Acute Tox. 4	H301, H332 R: 20-25	-

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air. Give artificial respiration if victim is not breathing. Give oxygen if breathing is difficult.

After Skin Contact: Flush affected area with copious amounts of water for at least 15 minutes. Remove contaminated clothing.

After Eye Contact: Rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

After Swallowing: Make victim drink plenty of water, induce vomiting. Immediately call in physician. Subsequently administer: Sodium sulfate (1 tablespoon/1/4 l water).

General Information: Not available

Safety Data Sheet

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

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:
Hydrochloric Acid

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 ground water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Avoid substance contact. Avoid generation of dusts. Ensure supply of fresh air in enclosed rooms.

Environmental Precautions:

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

Additional Notes:

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

SECTION 7: HANDLING AND STORAGE

Handling:

No further requirements.

Storage:

Store tightly closed. Accessible only for authorized persons.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Barium Chloride Dihydrate					
TWA (8hr)	0.5 mg (Ba)/m ³	Belgium	TWA (8hr)	0.5 mg (Ba)/m ³	Canada (Ontario)
TWA (8hr)	0.5 mg (Ba)/m ³	Canada (Quebec)	TWA (8hr)	0.5 mg (Ba)/m ³	France
TWA (8hr)	0.5 mg (Ba)/m ³	Germany	TWA (8hr)	0.5 mg (Ba)/m ³	Greece
TWA (8hr)	0.5 mg (Ba)/m ³	Hungary	TWA (8hr)	0.5 mg (Ba)/m ³	Italy
TWA (8hr)	0.5 mg (Ba)/m ³	Netherlands	TWA (8hr)	0.5 mg (Ba)/m ³	Portugal
TWA (8hr)	0.5 mg (Ba)/m ³	Romania	TWA (8hr)	0.5 mg (Ba)/m ³	Spain
TWA (8hr)	0.5 mg (Ba)/m ³	UK	TWA (8hr)	0.5 mg (Ba)/m ³	USA (ACGIH)
TWA (8hr)	0.5 mg (Ba)/m ³	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. The resistance of the protective clothing to chemicals should be determined with the respective supplier.

Respiratory Protection:

Required when dusts are generated.

Protective Gloves:

Compatible chemical-resistant gloves

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. Under no circumstances eat or drink at workplace. Work under hood. Do not inhale 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

Appearance:	White powder	Odor:	Odorless	Density at 20 °C:	3.86 g/cm ³ (25°C)
Melting Point:	963 °C	Boiling Point:	ND	Solubility:	375 g/L (anhydrous substance)
pH at 20 °C:	5.2-8.2 (25°C)	Explosion Limit:	NA	Flash Point:	NA
Thermal Decomp.:	NA				

SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Not available

Hazardous Decomposition Products:

Toxic gases: See section 5.

Substances to be Avoided:

Strong oxidizing agents, strong reducing agents

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

The following applies to Barium Chloride – as the pure substance:

Acute toxicity

LD50 (oral, rat): 118 mg/Kg – calculated on the pure anhydrous substance (IUCLID).

Subacute to chronic toxicity

Mutagenicity (mammal cell test): negative. (in vitro) (IUCLID).

Bacterial mutagenicity: Ames test: negative (IUCLID).

Potential Health Effects:

Inhalation: Irritations of the mucous membranes, coughing, and dyspnoea.

Skin Contact: Irritations.

Ingestion: May be harmful if swallowed. The following applies to soluble barium compounds in general: after swallowing: mucosal irritation, nausea, salivation, vomiting, dizziness, pain, colics, and diarrhoea. Systemic effects include: cardiac dysrhythmias, bradycardia (subdued cardiac activity), rise in blood pressure, shock and circulatory collapse as well as muscular rigidity.

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

Component Toxicity

Acute Toxicity:

Not Available

Chronic Toxicity:

Not Available

Additional Data:

Not Available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicological effects

Biological effects:

Endangers drinking-water supplies if allowed to enter soil or water. Formation of health-hazardous mixtures possible with water.

Fish toxicity: L.idus LC50: 870 mg/L /48 h (anhydrous substance) (IUCLID).

Daphnia toxicity: Daphnia magna EC50: 21.9 mg/L /48 h (anhydrous substance) (IUCLID).

Biologic degradation:

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

Further Data: Do not allow to enter waters, waste waters, or soil!

Safety Data Sheet

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

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:9, PGIII
UN-N:3316
Name:CHEMICAL KIT

Sea:

IMDG:9/UN 3316/PGIII
Name:CHEMICAL KIT

Air:

ICAO/IATA:9/UN 3316/PGIII
Name:CHEMICAL KIT

Transport data applies to the COMPLETE KIT!

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

R20: Harmful by inhalation.
R25: Toxic if swallowed.
H301: Toxic if swallowed.
H332: Harmful if inhaled.

Revision Information

Revision Date: 2010-12-01
Supersedes edition of: 2009-06-10
Reason for revision: Regulation (EC) No. 1272/2008
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.