

Revision Date: 2013-01-28
Reason for Revision: Regulation (EC) No. 1272/2008 Compliance

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 93730B-0 Molybdenum Reagent B

Application: Determination of Molybdenum 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

May intensify fire; oxidizer. May be harmful if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

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

Classification: Oxidising Solid (Category 3)
Acute Toxicity, Oral (Category 4)
Skin Irritation (Category 2)
Skin Sensitization (Category 1)
Eye Irritation (Category 2)
Respiratory Sensitization (Category 1)
Specific Target Organ Toxicity, Single Exposure (Category 3)

Signal Word: **Danger**

Pictograms:



Hazard Statements:
H272: May intensify fire; oxidizer.
H305: May be harmful if swallowed and enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation.

Precaution Statements:
P220: Keep/Store away from clothing/combustible materials.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

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

Symbol: O: Oxidizing
Xn: Harmful

R-phrases: 8-22-36/37/38-42/43: Contact with combustible material may cause fire. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

S-phrases: 22-24-26-37: Do not breathe dust. Avoid contact with the skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component:	EC No:	CAS No:	Hazard Class:	Phrases:	Concentration:
Potassium persulphate	231-781-8	7727-21-1	Ox. Sol. 3 Acute Tox. 4 Skin Irrit. 2 Skin Sens. 1 Eye Irrit. 2 Resp. Sens. 1 STOT SE 3 O, Xn, Xi	H272, H302, H315, H317, H319, H334, H335 R: 8-22-36/37/38-42/43	> 60% - < 80%

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 with plenty of water. Summon ophthalmologist.
- After Swallowing:** Drink plenty of water, induce vomiting, obtain medical attention.
- General Information:** Not available

SECTION 5: FIRE-FIGHTING MEASURES

- Suitable Extinguishing Media:**
Water spray, Carbon Dioxide, Dry Chemical Powder, Appropriate Foam.
- Special Risks:**
Fire-promoting (oxidizing). Keep away from combustible materials and sources of ignition and heat. Development of hazardous combustion gases or vapors possible in the event of fire. The following may develop in event of fire: Sulfur Oxides
- Special Protective Equipment:**
Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.
- Additional Information:**
Substance itself is non-combustible.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Personal Precautions:**
Avoid generation of dusts. Do not inhale dusts. Avoid substance contact. 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

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| <ul style="list-style-type: none"> Handling:
Avoid generation of dusts. Use appropriate personal protective equipment. Accessible only for authorized persons. | <ul style="list-style-type: none"> Storage:
Store away from combustible materials and sources of ignition and heat. Protect from moisture. |
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SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Potassium Persulfate					
TWA (8hr)	0.1 mg persulfate/m ³	Canada (Ontario)	TWA (8hr)	0.1 mg/m ³	Poland
TWA (8hr)	0.1 mg/m ³	Spain	TWA (8hr)	1 mg/m ³	UK

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

As appropriate to quantity handled.

Respiratory Protection:

Required when dusts are generated.

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Change contaminated clothing. Wash hands after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	White powder	Odor:	Odorless	Density at 20°C:	ND
Melting Point:	ND	Boiling Point:	NA	Solubility:	ND
pH at 20°C:	5.2 at 1.5 g/L in water	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:

Fire-promoting; strong oxidizing substance.

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Combustible substances, reducing agents, peroxides, water, bases, strong alkalis, acids, metals and heavy metals, silver compounds

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

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

Potential Health Effects:

- Inhalation:** Irritation of the respiratory tract. Possibility of sensitization.
- Skin Contact:** Slight irritations. Possibility of sensitization.
- Eye Contact:** Irritations.
- Ingestion:** Risk of mucosal irritations, coughing, dyspnoea.
- 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:

Chronic Toxicity:

Not Available

Potassium Persulfate

LD50: Oral - Rat - 802 mg/kg

Additional Data:

Not Available

SECTION 12: ECOLOGICAL INFORMATION

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

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Potassium peroxodisulfate:

Ecotoxic effects:

Biological effects: toxic decomposition products form after reaction with water. Harmful effect on aquatic organisms.

Fish toxicity: *P. reticulata* LC50: 100 mg/L / 96 h.

Daphnia toxicity: *Daphnia magna* EC0: 180 mg/L / 24 h; *Daphnia magna* EC50: 357 mg/L / 24 h.

Bacterial toxicity: *Ps. putida* EC50: 36 mg/L.

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

	Land (ADR/RID):	Sea (IMDG):	Air (ICAO/IATA):
UN No.:	1492	1492	1492
Proper Shipping Name:	Potassium persulphate mixture	Potassium persulphate mixture	Potassium persulphate mixture
Class (Sub Risk):	5.1	5.1	5.1
Packing Group:	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***

R8: Contact with combustible material may cause fire.
R22: Harmful if swallowed.
R36/37/38: Irritating to eyes, respiratory system and skin.
R42/43: May cause sensitization by inhalation and skin contact.
H272: May intensify fire; oxidizer.
H305: May be harmful if swallowed and enters airways.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation.

Revision Information

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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.