



HI 4012-01
0.10 mol/L Lead Standard
Safety Data Sheet

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

Revision Date: 2012-05-25
Reason for Revision: Section 14 Updated

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 4012-01 0.10 mol/L Lead Standard

Application: For Calibrating Electrodes

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 cause harm to the unborn child. Also harmful by inhalation and if swallowed. Danger of cumulative effects. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component: Lead Perchlorate Trihydrate

EC-No.: 237-125-7

CAS-No.: 13453-62-8

Hazard: T, N, Repr. Cat. 1, Repr. Cat. 3

Phrases: R: 61-20/22-33-50/53-62

Content: > 1% - < 2.5%

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 water and soap. Remove contaminated clothing and shoes.

After Eye Contact: Rinse out with plenty of water for at least 15 minutes. If pain persists, summon medical advice.

After Swallowing: Wash out mouth with plenty of water, provided person is conscious. Obtain medical attention if feeling unwell.

General Information: Not available

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Water Spray, Foam, Dry Powder, Carbon Dioxide

Special Risks:

Specific Hazard(s): Emits toxic fumes under fire conditions. Contact with other material may cause fire. May accelerate combustion.

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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Environmental Precautions:

Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Additional Notes:

None

SECTION 7: HANDLING AND STORAGE

Handling:

Do not breathe vapor/aerosols. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

Storage:

Keep container closed and protected from direct sunlight. Keep tightly closed. Keep away from combustible materials, heat, sparks, and open flame.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

| Type | Value | Source | Type | Value | Source |
|--|-----------------------------|-----------------|-----------|-----------------------------|------------|
| Lead(II) Perchlorate Trihydrate | | | | | |
| TWA (8hr) | 0.05 mg (Pb)/m ³ | Canada (Quebec) | TWA (8hr) | 0.15 mg (Pb)/m ³ | Hungary |
| TWA (8hr) | 0.05 mg (Pb)/m ³ | Poland | TWA (8hr) | 0.05 mg (Pb)/m ³ | Romania |
| TWA (8hr) | 0.05 mg (Pb)/m ³ | USA (ACGIH) | TWA (8hr) | 0.05 mg (Pb)/m ³ | USA (OSHA) |

Engineering:

Use only in a chemical fume hood. Safety shower and eye wash.

Personal Protective Equipment:

As appropriate to quantity handled.

Respiratory Protection:

Required when vapors/aerosols are generated.

Protective Gloves:

Rubber or plastic

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Wash thoroughly after handling. Remove and wash contaminated clothing promptly. Discard contaminated shoes.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

| | | | | | |
|-------------------------|------------------|-------------------------|----------|-------------------------|------------------------|
| Appearance: | Colorless liquid | Odor: | Odorless | Density at 20°C: | 1.03 g/cm ³ |
| Melting Point: | NA | Boiling Point: | 100 °C | Solubility: | Soluble |
| pH at 20°C: | 5.6 | 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:

Hydrogen chloride gas, Lead/lead oxides.

Substances to be Avoided:

Organic materials, finely powdered metals

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

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

Component Toxicity

Acute Toxicity:

Not Available

Chronic Toxicity:

Lead(II) Perchlorate Trihydrate

IARC Group 2A: Probably Carcinogenic to humans

Additional Data:

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Lead perchlorate trihydrate – as the pure substance:

Route of exposure

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion: Harmful if swallowed.

Target organ information

Blood. Kidneys. Nerves.

Chronic exposure - Teratogen

Result: May cause congenital malformation in the fetus.

Chronic exposure - Reproductive hazard

Result: May cause reproductive disorders.

SECTION 12: ECOLOGICAL INFORMATION

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

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:

Not subject to transport regulations.

Sea:

Not subject to transport regulations.

Air:

Not subject to transport regulations.

SECTION 15: REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol: T: Toxic

R-phrases: 61-20/22-33-52/53: May cause harm to the unborn child. Also harmful by inhalation and if swallowed. Danger of cumulative effects. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases: 53-45-60-61: Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

Contains: Lead perchlorate trihydrate Additional labeling: Restricted to professional users

SECTION 16: OTHER INFORMATION***Text of R-phrases under Section 3***

61: May cause harm to the unborn child.
20/22: Also harmful by inhalation and if
swallowed.
33: Danger of cumulative effects.
62: Possible risk of impaired fertility.
50/53: Very toxic to aquatic organisms, may
cause long-term adverse effects in the aquatic
environment

Revision Information

Revision Date: 2012-05-25
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.**