

Revision Date: 2009-06-10
Reason for Revision: 29 CFR 1910.1200 and SOR/88-66 Compliance

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 3896-K Potassium Reagent

Additional Product Codes: HI 3896-K

Application: Determination of Potassium in Soil (Extract)
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

Irritating to eyes, respiratory system and skin.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component:	EDTA Tetrasodium Salt Dihydrate	Lithium Hydroxide Monohydrate	Sodium Tetraphenyl Borate
EC-No.:	200-573-9	215-183-4	205-605-5
CAS-No.:	10378-23-1	1310-66-3	143-66-8
Hazard:	Xi	C	Xn
Phrases:	R: 36/37/38	R: 35	R: 22
Content:	> 75% - < 100%	> 1% - < 5%	> 1% - < 10%

SECTION 4: FIRST AID MEASURES

After Inhalation:	If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
After Skin Contact:	Flush affected area with copious amounts of water for at least 15 minutes.
After Eye Contact:	Flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.
After Swallowing:	If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.
General Information:	Remove contaminated, soaked clothing immediately and dispose of safely.

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:
Carbon Monoxide, Carbon Dioxide, Boron 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-fighting water from entering surface water or ground water.

Safety Data SheetAccording to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66**SECTION 6: ACCIDENTAL RELEASE MEASURES****Personal Precautions:**

Avoid substance contact. Avoid generation of dusts; do not inhale 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:**

Do not breathe dust. Do not get in eyes, on skin, on clothing.

Storage:Store tightly closed at room temperature (+15°C to +25°C).
Accessible only for authorized persons.**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION****Engineering:**

Safety shower and eye wash.

Personal Protective Equipment:

As appropriate to quantity handled.

Respiratory Protection:

Required when dusts are generated.

Protective Gloves:

Compatible chemical-resistant gloves

Eye Protection:

Goggles or face mask

Industrial Hygiene:

Wash contaminated clothing. Application of skin-protective barrier cream recommended. Wash hands and face 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:** Soluble**pH at 20° C:** 12 at 10 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:

Not available

Hazardous Decomposition Products:

Toxic gases: See section 5.

Substances to be Avoided:

Strong oxidizing agents

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Canadian Regulation SOR/88-66**SECTION 11: TOXICOLOGICAL INFORMATION****Product Toxicity**

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

Potential Health Effects:

- Inhalation:** Irritations of the mucous membranes, coughing, and dyspnoea.
- Skin Contact:** Irritations.
- Eye Contact:** Irritations.
- Ingestion:** Absorption. Disturbed electrolyte balance. Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract. Damage to the kidneys.
- 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:**APPLICABLE TO PARTIAL COMPONENT:**

The following applies to EDTA tetrasodium salt dihydrate – as the pure substance:

Acute toxicity

LD 50 (oral, rat): 1000-2000 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): Irritations.

Skin irritation test (rabbit): No irritation.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Sodium tetraphenyl borate – as the pure substance:

Acute toxicity

LD 50 (oral, rat): 288 mg/kg.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to lithium compounds in general: when handled or used inappropriately, the absorption of large quantities is followed by CNS disorders, agitation, spasms, ataxia (impaired locomotor coordination) due to disturbed electrolyte balance.

SECTION 12: ECOLOGICAL INFORMATION

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

APPLICABLE TO PARTIAL COMPONENT:

The following applies to EDTA tetrasodium salt dihydrate – as the pure substance:

Ecotoxic effects:

Biological effects:

Harmful effect on aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Fish toxicity: *L. idus* LC50 : >500 mg/L /96 h.

Daphnia toxicity: *Daphnia magna* EC50 : >100 mg/L /24 h.

Algal toxicity: algae IC50 : 10-100 mg/L /72 h.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Sodium tetraphenyl borate – as the pure substance:

Ecotoxic effects:

Biological effects:

Daphnia toxicity: *Daphnia magna* LC50 : 32 mg/L /48 h.

APPLICABLE TO PARTIAL COMPONENT:

The following applies to lithium compounds in general: biological effects: fish: toxic from 100 mg/L up; *Daphnia* toxic from 16 mg/L up; plants: toxic from 0.2 mg/L up (values calculated as Li).

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.

Safety Data Sheet

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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: Xi: Irritant

R-phrases: 36/37/38: Irritating to eyes, respiratory system and skin.

S-phrases: 26-36: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

SECTION 16: OTHER INFORMATION

Text of R-phrases under Section 3

22: Harmful if swallowed.
35: Causes severe burns.
36/37/38: Irritating to eyes, respiratory system and skin.

Revision Information

Revision Date: 2009-06-10

Supersedes edition of: 2008-12-01

Reason for revision: 29 CFR 1910.1200 and SOR/88-66 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.