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HI 3881-0
pH 6.5 – 8.5 Reagent.
Safety Data Sheet
According to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66

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 3881-0 pH 6.5 – 8.5 Reagent **Additional Product Codes:** HI 3881-100
Application: Determination of pH 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

Non-hazardous product as specified in Directives 67/548/EEC and 1999/45/EC.
Non-hazardous product as specified in OSHA Regulation 29 CFR 1910.1200.
Non-hazardous product as specified in Canadian Regulation SOR/88-66.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component: Ethylene Glycol
EC-No.: 203-473-3
CAS-No.: 107-21-1
Hazard: Xn
Phrases: R: 22
Content: > 1% - < 10 %

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.
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:
Appropriate Foam, Dry Chemical Powder, Carbon Dioxide
Special Risks:
Specific Hazard(s): Emits toxic fumes under fire conditions. The following may develop in event of fire: Carbon Monoxide, Carbon Dioxide
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:

Absorb on sand or vermiculite and place in closed containers for disposal. When spilled, the floor may be slippery. Wipe up the floor completely. Clean up affected area and dispose according to local regulation. Ventilate area after material pickup is complete.

Environmental Precautions:

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

Additional Notes:

For large spillages liquids should be contained with sand or earth and both liquids and solids transferred to salvage containers. Any residues should be treated as for small spillages

SECTION 7: HANDLING AND STORAGE

Handling:

No further requirements.

Storage:

Store at room temperature (+15 to +25 °C recommended). Protect from light and moisture.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Ethylene Glycol					
TWA (8hr)	52 mg/m ³ (aerosol)	Belgium	Ceiling	100 mg/m ³	Canada (Ontario)
Ceiling	127 mg/m ³	Canada (Quebec)	TWA (8hr)	52 mg/m ³ (vapor)	France
TWA (8hr)	26 mg/m ³	Germany	TWA (8hr)	125 mg/m ³ (fume)	Greece
TWA (8hr)	52 mg/m ³	Hungary	TWA (8hr)	52 mg/m ³	Italy
TWA (8hr)	10 mg/m ³ (aerosol)	Netherlands	TWA (8hr)	15 mg/m ³	Poland
Ceiling	100 mg/m ³	Portugal	TWA (8hr)	52 mg/m ³	Romania
TWA (8hr)	52 mg/m ³	Spain	TWA (8hr)	52 mg/m ³ (vapor)	UK

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

As appropriate to quantity 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:

Wash thoroughly after handling.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Orange to yellow liquid	Odor:	Odorless	Density at 20° C:	1.0 g/cm ³
Melting Point:	NA	Boiling Point:	ND	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:

In the event of fire: See section 5.

Substances to be Avoided:

No information available

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

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

Potential Health Effects:

- Inhalation:** Material may be irritating to mucous membranes and upper respiratory tract.
Skin Contact: Slight irritations.
Eye Contact: Slight irritations.
Ingestion: Nausea, vomiting, agitation, CNS disorders.
Further Data: The product should be handled with the usual care when dealing with chemicals.

Component Toxicity

Acute Toxicity:

Chronic Toxicity:

Not Available

Ethylene Glycol

LD50: Oral - Rat - 4700 mg/kg

LD50: Dermal - Rabbit - 10626 mg/kg

Additional Data:

APPLICABLE TO PARTIAL COMPONENT:

The following applies to ethylene glycol, as the pure substance:

Acute toxicity

LDLo (oral, human): 786 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): Slight irritations.

Skin irritation test (rabbit): Slight irritations.

Subacute to chronic toxicity

Sensitization:

Patch test (humans): No sensitizing effect.

Bacterial mutagenicity: Ames test: negative.

SECTION 12: ECOLOGICAL INFORMATION

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

APPLICABLE TO MAIN COMPONENT:

The following applies to Ethylene Glycol, as the pure substance:

Biologic degradation:

Biodegradation: 83-96 % /14 d MITI test.

Readily biodegradable.

Behavior in environmental compartments:

Distribution: log p(o/w): -1.36 (experimental).

No bioaccumulation is to be expected (log P(o/w) <1).

Ecotoxic effects:

Biological effects:

Fish toxicity: *Onchorhynchus mykiss* LC50: >18500 mg/L /96 h. *L.idus* LC50: >10000 mg/L /48 h.

Daphnia toxicity: *Daphnia magna* EC50: 74000 mg/L /24 h.

Bacterial toxicity: *Ps.putida* EC50: >10000 mg/L /16 h.

Maximum permissible toxic concentration:

Algeal toxicity: *Sc.quadricauda* IC5: >10000 mg/L /7 d.

Bacterial toxicity: *M.aeruginosa* EC5: 2000 mg/L /8 d.

Protozoa: *E.sulcatum* EC5: >10000 mg/L /72 h.

Further ecologic data:

Degradability:

BOD5: 0.78 g/g.

COD: 1.19 g/g.

TOD: 1.29 g/g.

BOD 60 % from TOD /5 d.

Further Data: No ecological problems are to be expected when the product is handled and used with due care and attention.

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:

Non-hazardous according to Directives 67/548/EEC and 1999/45/EC.

SECTION 16: OTHER INFORMATION

Text of R-phrases under Section 3

22: Harmful if swallowed.

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.**