

**Revision Date:** 2016-06-28  
**Reason for Revision:** Removed DSD/DPD Regulation Info

**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 OSHA Regulation 29 CFR 1910.1200.  
Non-hazardous product as specified in Canadian Regulation SOR/88-66.  
Non-hazardous product as specified in Regulation (EC) 1272/2008.

**SECTION 3: COMPOSITION AND COMPONENT INFORMATION**

| <b>Component:</b> | <b>EC No:</b> | <b>CAS No:</b> | <b>Hazard Class:</b> | <b>Phrases:</b> | <b>Concentration:</b> |
|-------------------|---------------|----------------|----------------------|-----------------|-----------------------|
| Ethylene glycol   | 203-473-3     | 107-21-1       | Acute Tox. 4         | H302            | > 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

## Safety Data Sheet

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

### **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           |
|------------------------|--------------------------------|-----------------|-----------|------------------------------|------------------|
| <b>Ethylene Glycol</b> |                                |                 |           |                              |                  |
| TWA (8hr)              | 52 mg/m <sup>3</sup> (aerosol) | Belgium         | Ceiling   | 100 mg/m <sup>3</sup>        | Canada (Ontario) |
| Ceiling                | 127 mg/m <sup>3</sup>          | Canada (Quebec) | TWA (8hr) | 52 mg/m <sup>3</sup> (vapor) | France           |
| TWA (8hr)              | 26 mg/m <sup>3</sup>           | Germany         | TWA (8hr) | 125 mg/m <sup>3</sup> (fume) | Greece           |
| TWA (8hr)              | 52 mg/m <sup>3</sup>           | Hungary         | TWA (8hr) | 52 mg/m <sup>3</sup>         | Italy            |
| TWA (8hr)              | 10 mg/m <sup>3</sup> (aerosol) | Netherlands     | TWA (8hr) | 15 mg/m <sup>3</sup>         | Poland           |
| Ceiling                | 100 mg/m <sup>3</sup>          | Portugal        | TWA (8hr) | 52 mg/m <sup>3</sup>         | Romania          |
| TWA (8hr)              | 52 mg/m <sup>3</sup>           | Spain           | TWA (8hr) | 52 mg/m <sup>3</sup> (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**

|                         |                         |                         |          |                         |                       |
|-------------------------|-------------------------|-------------------------|----------|-------------------------|-----------------------|
| <b>Appearance:</b>      | Orange to yellow liquid | <b>Odor:</b>            | Odorless | <b>Density at 20°C:</b> | 1.0 g/cm <sup>3</sup> |
| <b>Melting Point:</b>   | NA                      | <b>Boiling Point:</b>   | ND       | <b>Solubility:</b>      | Soluble               |
| <b>pH at 20°C:</b>      | 5.6                     | <b>Explosion Limit:</b> | NA       | <b>Flash Point:</b>     | NA                    |
| <b>Thermal Decomp.:</b> | NA                      |                         |          |                         |                       |

## Safety Data Sheet

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

### **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.

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**Component Toxicity**

**Acute Toxicity:**

**Ethylene Glycol**

**LD50:** Oral - Rat - 4700 mg/kg

**LD50:** Dermal - Rabbit - 10626 mg/kg

**Chronic Toxicity:**

Not Available

**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:  
 Algal 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**

|                                      |                                      |                                      |
|--------------------------------------|--------------------------------------|--------------------------------------|
| <b>Land:</b>                         | <b>Sea:</b>                          | <b>Air:</b>                          |
| Not subject to transport regulations | Not subject to transport regulations | Not subject to transport regulations |

**SECTION 15: REGULATORY INFORMATION**

Complies with European Regulations (EC) No. 1907/2006 and No. 1272/2008.  
 Complies with OSHA Regulation 29 CFR 1910.1200.  
 Complies with Canadian Regulation SOR/88-66.  
 All chemical substances in this product are listed on the TSCA Inventory.

**SECTION 16: OTHER INFORMATION**

**Text of phrases under Section 3**

H302: Harmful if swallowed.

**Revision Information**

**Revision Date:** 2016-06-28  
**Supersedes edition of:** 2013-07-01  
**Reason for revision:** Removed DSD/DPD Regulation Info

**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.**