

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

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 70434 85% Phosphoric Acid Solution

Application: For Chemical Analysis

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

Causes burns.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component: Phosphoric Acid

EC-No.: 231-633-2

CAS-No.: 7664-38-2

Hazard: C

Phrases: R: 34

Content: > 85%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air. Call in a physician.

After Skin Contact: Wash affected area with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing

After Eye Contact: Rinse out with plenty of water for at least 10 minutes. Immediately call in ophthalmologist

After Swallowing: Make victim drink plenty of water (if necessary several liters), avoid vomiting (risk of perforation!). Immediately call in physician. Do not attempt to neutralize.

General Information: Not available

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Water spray, Carbon Dioxide, Dry Chemical Powder, Appropriate Foam.

Special Risks:

Non-combustible. Ambient fire may liberate hazardous vapors. The following may develop in event of fire: Phosphorus Oxides

Special Protective Equipment:

Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Additional Information:

Cool container with spray water from a safe distance. Contain escaping vapors with water. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Take up with liquid-absorbent material. Clean up affected area and dispose according to local regulation.

Environmental Precautions:

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

Additional Notes:

Take up with liquid-absorbent and neutralizing material.

SECTION 7: HANDLING AND STORAGE

Handling:

Avoid generation of vapors/aerosols. Do not inhale substance.

Storage:

Tightly closed. In a well-ventilated place at +15 to +25 °C, protected from light.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
Phosphoric Acid					
TWA (8hr)	1 mg/m ³	Canada (Ontario)	TWA (8hr)	1 mg/m ³	Canada (Quebec)
TWA (8hr)	1 mg/m ³	Hungary	TWA (8hr)	1 mg/m ³	Poland
TWA (8hr)	1 mg/m ³	Romania	TWA (8hr)	1 mg/m ³	USA (ACGIH)
TWA (8hr)	1 mg/m ³	USA (OSHA)			

Engineering:

Maintain general industrial hygiene practice.

Personal Protective Equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

Respiratory Protection:

Required when vapors/aerosols 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:	Colorless liquid	Odor:	Odorless	Density at 20°C:	1.71 g/cm ³
Melting Point:	~ 21 °C	Boiling Point:	~ 158 °C	Solubility:	Soluble
pH at 20°C:	< 0.5 @ 100 g/L in water	Explosion Limit:	NA	Flash Point:	NA
Thermal Decomp.:	NA				

SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Strong Heating

Hazardous Polymerization:

Will not occur.

Further Information:

Hygroscopic. Incompatible with iron/iron-containing compounds, steel, aluminium and their compounds. Hydrogen may form upon contact with metals (danger of explosion!).

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Bases, metallic oxides, metals, metal alloys: formed could be: hydrogen

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

Specific symptoms in animal studies:
 Eye irritation test (rabbit): burns.
 Skin irritation test (rabbit): burns. Subacute to chronic toxicity
 Sensitization:
 Experience in man: No sensitizing potential.
 Bacterial mutagenicity: Ames test: negative.

Potential Health Effects:

- Inhalation:** Irritation symptoms in the respiratory tract.
- Skin Contact:** Burns.
- Eye Contact:** Conjunctivitis, burns. Risk of blindness!.
- Ingestion:** Burns, strong pain (risk of perforation!). Systemic effects: shock, spasms.
- 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

Phosphoric Acid

LD50: Oral - Rat - 1530 mg/kg

LD50: Dermal - Rabbit - 2740 mg/kg

Additional Data:

Not Available

SECTION 12: ECOLOGICAL INFORMATION

Biologic degradation:
 Inorganic substance. Does not cause biological oxygen deficit.
 Ecotoxic effects:
 Biological effects:
 Harmful effect on aquatic organisms. Caustic even in diluted form. Harmful effect due to pH shift.
 Fish toxicity: *Gambusia affinis* LC50: 138 mg/L /96 h (calculated on the pure substance).
 aquatic organisms LC50: 100-1000 mg/L /96 h (calculated on the pure substance).
 Bacterial toxicity: activated sludge EC50: 270 mg/L (calculated on the pure substance).

Further Data: Depending on the concentration, phosphorus compounds may contribute to the eutrophication of water supplies. 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.

SECTION 14: TRANSPORTATION INFORMATION

	Land (ADR/RID):	Sea (IMDG):	Air (ICAO/IATA):
UN No.:	1805	1805	1805
Proper Shipping Name:	Phosphoric acid solution	Phosphoric acid solution	Phosphoric acid solution
Class (Sub Risk):	8	8	8
Packing Group:	III	III	III

Safety Data SheetAccording to Regulation (EC) No. 1907/2006
OSHA Regulation 29 CFR 1910.1200
Canadian Regulation SOR/88-66**SECTION 15: REGULATORY INFORMATION****Labeling according to EC Directives:****Symbol:** C: Corrosive**R-phrases:** 34: Causes burns.**S-phrases:** 26-45: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).**Contains:** Phosphoric acid**SECTION 16: OTHER INFORMATION****Text of R-phrases under Section 3**

34: Causes burns.

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.