

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 3850C-0 Ascorbic Acid Reagent C

Application: Determination of Ascorbic Acid 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

Harmful if swallowed.

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: > 25% - < 50%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air. Consult a doctor if feeling unwell.

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

After Eye Contact: Rinse out with plenty of water for at least 15 minutes. If discomfort persists obtain medical attention.

After Swallowing: Immediately make victim drink plenty of water. Call in physician. Subsequently administer: activated charcoal (20 - 40 g in 10% slurry). Laxative: Sodium sulfate (1 tablespoon/1/4 l water). Keep airways free.

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.

Special Protective Equipment:

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

Additional Information:

Prevent fire-fighting water from entering surface water or groundwater.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Do not inhale vapors/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed.

Environmental Precautions:

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

Additional Notes:

Take up with liquid-absorbent material. Forward for disposal. Clean up affected area.

SECTION 7: HANDLING AND STORAGE

Handling:

No further requirements.

Storage:

Store at room temperature (+15 to +25 °C recommended). Tightly closed.

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:

Change contaminated clothing. Apply skin-protective barrier cream. Wash hands after working with substance.

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:

Change contaminated clothing. Wash hands after working with substance.

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Odorless	Density at 20° C:	1.09 g/cm ³
Melting Point:	ND	Boiling Point:	ND	Solubility:	Soluble
pH at 20° C:	11.8	Explosion Limit:	ND	Flash Point:	ND
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:

Amines, aluminium, chromyl chloride, alkali hydroxides, perchloric acid, strong oxidizing agents

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

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

Potential Health Effects:

Skin Contact: Slight irritations. Danger of skin absorption.

Eye Contact: Irritant effects.

Ingestion: Nausea, vomiting, agitation, CNS disorders.

Further Data: Systemic effects: After a latency period: tiredness, ataxia (impaired locomotor coordination), unconsciousness. Damage of: kidneys. 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:

ADR/RID: 9, II

UN-No.: 3316

Name: CHEMICAL KIT

Sea:

IMDG: class 9/UN 3316/PG II

Name: CHEMICAL KIT

Air:

ICAO/IATA: 9/UN 3316/PG II

Name: CHEMICAL KIT

Transport data applies to the COMPLETE KIT!

SECTION 15: REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol: Xn: Harmful

R-phrases: 22: Harmful if swallowed.

S-phrases: 46: If swallowed, seek medical advice immediately and show this container or label.

Contains: Ethylene glycol

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.