

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

Revision Date: 2012-04-23
Reason for Revision: Section 14 Updated

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 3843C-0 Bleach Reagent C

Application: Determination of Bleach 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% - < 25%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air.

After Skin Contact: Wash affected area with water. Remove contaminated clothing.

After Eye Contact: Rinse out with plenty of water for at least 10 minutes. Obtain medical attention.

After Swallowing: Immediately make victim drink plenty of water. Summon doctor.

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.

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 groundwater.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

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

Environmental Precautions:

NA

Additional Notes:

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

SECTION 7: HANDLING AND STORAGE

Handling:

No further requirements.

Storage:

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:

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

SECTION 9: PHYSICAL/CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Odor:	Odorless	Density at 20°C:	1.1 g/cm ³
Melting Point:	ND	Boiling Point:	ND	Solubility:	Soluble
pH at 20°C:	~ 7	Explosion Limit:	NA	Flash Point:	ND
Thermal Decomp.:	NA				

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SECTION 10: STABILITY AND REACTIVITY

Conditions to be Avoided:

Heating (decomposition).

Hazardous Polymerization:

Will not occur.

Further Information:

Not available

Hazardous Decomposition Products:

In the event of fire: See section 5.

Substances to be Avoided:

Nitrates, nitrites, peroxi compounds, fluorine, acids, 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: 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
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Additional Data:

APPLICABLE TO MAIN COMPONENT:

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

Acute toxicity

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

Specific symptoms in animal studies:

Eye irritation test (rabbit): Slight irritations (IUCLID).

Skin irritation test (rabbit): Slight irritations (IUCLID).

Subacute to chronic toxicity

Sensitization:

Patch test (humans): negative. (IUCLID)

Bacterial mutagenicity: Ames test: negative. (in vitro) (IUCLID)

Mutagenicity (mammal cell test): negative. (in vitro) (IUCLID)

Mutagenicity (mammal cell test): chromosome aberration negative. (in vitro) (National Toxicology Program)

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SECTION 12: ECOLOGICAL INFORMATION

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

APPLICABLE TO PARTIAL COMPONENT:

The following applies to Ethylene glycol – as the pure substance:

Biologic degradation:

Biodegradation: 83-96 % /14 d (OECD 301 C).

Readily biodegradable.

Behavior in environmental compartments:

Distribution: log Pow: -1.36 (experimental) (Lit.).

No bioaccumulation is to be expected (log Pow <1).

Ecotoxic effects:

Biological effects:

Fish toxicity: Onchorhynchus mykiss LC50: >18500 mg/L /96 h (External MSDS).

Daphnia toxicity: Daphnia magna EC50: 74000 mg/L /24 h (Lit.).

Bacterial toxicity: Ps.putida EC50: >10000 mg/L /16 h (Lit.).

Maximum permissible toxic concentration:

Algeal toxicity: Sc.quadricauda IC5: >10000 mg/L /7 d (Lit.).

Protozoa: E.sulcatum EC5: >10000 mg/L /72 h (Lit.).

Further ecologic data:

Degradability:

BOD5: 0.78 g/g (IUCLID).

COD: 1.19 g/g (IUCLID).

TOD: 1.29 g/g (IUCLID).

BOD 60 % from TOD /5 d (IUCLID).

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: 2012-04-23

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.