



HI 93738D-0
Chlorine Dioxide Reagent D
Safety Data Sheet

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

Revision Date: 2012-04-27
Reason for Revision: Section 14 Updated

SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name: HI 93738D-0 Chlorine Dioxide Reagent D

Application: Determination of Chlorine Dioxide 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

Irritating to eyes and skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Component: 2-Amino-2-Methyl-1-Propanol

EC-No.: 204-709-8

CAS-No.: 124-68-5

Hazard: Xi

Phrases: R: 36/38-52/53

Content: > 25% - < 40%

SECTION 4: FIRST AID MEASURES

After Inhalation: Remove to fresh air.

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

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

After Swallowing: Make victim drink plenty of water (if necessary several liters. Immediately call in physician.

General Information: Remove contaminated, soaked clothing immediately and dispose of safely.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Foam, Powder

Special Risks:

Vapors heavier than air. The following may develop in event of fire: Nitrogen Oxides

Special Protective Equipment:

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

Additional Information:

NA

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Avoid inhalation of vapors/aerosols. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

Environmental Precautions:

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

Additional Notes:

Take up with liquid-absorbent material.

SECTION 7: HANDLING AND STORAGE

Handling:

No further requirements.

Storage:

Keep container closed and protected from direct sunlight. Store at room temperature (+15°C to +25°C).

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Type	Value	Source	Type	Value	Source
2-amino-2-methylpropanol					
TWA (8hr)	4.6 mg/m ³	Germany			

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. Work under hood.

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:	Amine-like	Density at 20°C:	0.98 g/cm ³
Melting Point:	ND	Boiling Point:	ND	Solubility:	Soluble
pH at 20°C:	12.4	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:

strong oxidizing agents

SECTION 11: TOXICOLOGICAL INFORMATION

Product Toxicity

APPLICABLE TO MAIN COMPONENT:
The following applies to 2-Amino-2-methyl-1-propanol – as the pure substance
Specific symptoms in animal studies:
Eye irritation test (rabbit): Irritations.
Skin irritation test (rabbit): Irritations.
Subacute to chronic toxicity
Sensitization:
Sensitization test (guinea pig): No sensitizing effect.
Bacterial mutagenicity: Ames test: negative.

Potential Health Effects:

- Inhalation:** Irritations of mucous membranes, coughing, dyspnoea.
- Skin Contact:** Irritations.
- Eye Contact:** Irritations.
- Ingestion:** Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract.
- Further Data:** Systemic effects: CNS disorders, cardiovascular disorders. Toxic effect on: liver, kidneys. The product should be handled with the usual care when dealing with chemicals.

Component Toxicity

Acute Toxicity:

2-amino-2-methylpropanol
LD50: Oral - Rat - 2900 mg/kg

Additional Data:

Not Available

Chronic Toxicity:

Not Available

SECTION 12: ECOLOGICAL INFORMATION

Quantitative data on the ecological effect of this product is not available.

APPLICABLE TO MAIN COMPONENT:
The following applies to 2-Amino-2-methyl-1-propanol – as the pure substance

Biologic degradation:
Biodegradation: 40 % /28 d.
Biologically not readily degradable.
Behavior in environmental compartments:
Distribution: log p(o/w): -0.74 (calculated).
No bioaccumulation is to be expected (log P(o/w) <1).
Ecotoxic effects:
Biological effects: Harmful effect on aquatic organisms. May cause long-term adverse effects in the aquatic environment.
Fish toxicity: L. macrochirus LC 50 : 190 mg/L /96 h.
Daphnia toxicity: Daphnia magna EC 50 : 65 mg/L /24 h.
Algal toxicity: Desmodesmus subspicatus IC 50 : 520 mg/L /72 h.
Bacterial toxicity: Ps.putida EC 10 : 50 mg/L.
Further ecologic data:
COD: 2.050 g/g.
BOD 5 : <0.01 g/g.

Further Data: Do not allow to enter waters, waste water, 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.

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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:****Symbol:** Xi: Irritant**R-phrases:** 36/38-52/53: Irritating to eyes and skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**S-phrases:** 61: Avoid release to the environment. Refer to special instructions/Safety data sheets.**SECTION 16: OTHER INFORMATION****Text of R-phrases under Section 3**36/38: Irritating to eyes and skin
52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**Revision Information****Revision Date:** 2012-04-27
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.