

Safety Data Sheet

Clidox-S[®] Use-Dilution



SDS Date of Preparation: 06/30/2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

- 1.1 Product Identifier**
Trade Name: Clidox-S[®] Use-Dilution
- 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**
Product Use: See Technical Data Sheet
- 1.3 Details of the Supplier of the Safety Data Sheet**
Manufacturer: Pharmocal Research Labs., Inc.
562 Captain Neville Dr
Waterbury, CT 06705, USA
Information Phone Number: 203-755-4908, (800)-243-5350
E-mail: info@pharmocal.com
- 1.4 Emergency Telephone Number**
Emergency Spill Information: CHEMTREC (USA): (800) 424-9300
IN CANADA CALL CANUTEC: (613) 996-6666

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

GHS Classification

Eye Irritant Category 2 (H319)
Skin Irritant Category 2 (H315)

2.2 Label Elements



Warning!
Contains: Glycolic Acid

Hazard Phrases

H315	Causes skin irritation.
H319	Causes serious eye irritation

Precautionary Phrases

P264	Wash thoroughly after handling.
P280	Wear protective gloves and eye protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P332+P313	If skin irritation occurs: Get medical attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

2.3 Other Hazards:

None.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	EINECS# / REACH Registration	GHS/CLP Classification	%
Glycolic Acid	79-14-1	201-180-5	Acute Toxicity Category 4 (H332) Skin Corrosive Category 1B (H314) Eye damage Category 1 (H318)	≤2
Chlorine Dioxide	10049-04-4	233-162-8	Oxidizing Gas Category 1 (H270) Compressed Gas (H280) Acute Toxicity Category 1 (H330) Skin Corrosive Category 1B (H314) Eye Damage Category 1 (H318) Aquatic Acute Toxicity Category 1 (H400) (M-factor Acute: 10)	***

***Note: Max ClO₂ released in 1:18:1 dilution: 76.058 ppm; Max ClO₂ released in 1:3:1 dilution: 69.013 ppm initial reading Day 1 and 228.37ppm at Day 3

See Section 16 for further information on GHS Classification.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye: Immediately flush with large quantities of water for at least 15 minutes. Get medical attention if irritation develops or persists.

Skin: Wash with plenty soap and water for several minutes. Get medical attention if irritation develops.

Inhalation: Remove victim to fresh air. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting unless directed to do so by a medical professional. If conscious, rinse mouth with a small amount of water and give one glass of water to dilute. Never give anything by mouth to an unconscious or convulsing person. Get medical attention if symptoms develop.

4.2 Most Important symptoms and effects, both acute and delayed:

Causes serious eye irritation. Causes skin irritation. Mixed dilution product can release chlorine dioxide which can cause respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed:

Immediate medical attention is generally not required.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Water is recommended since chlorine dioxide is soluble in water and the toxic effects are reduced on dilution.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards:

Not considered flammable or combustible but will burn under fire conditions.

Hazardous Decomposition Products: May release chlorine dioxide and oxides of carbon.

5.3 Special Protective Actions for Fire-Fighters:

Special Fire Fighting Procedures: None known.

Fire Fighting Equipment: As in any fire, wear positive pressure, self-contained breathing apparatus and full protective gear.

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SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions, Protective Equipment and Emergency Procedures:**
Evacuate spill area and keep unprotected personnel away. Prevent contact with the eyes, skin and clothing. Ventilate area. Wear appropriate protective clothing.
- 6.2 Environmental Precautions:**
Prevent run-off to sewers, streams or other bodies of water. Report spills and releases as required to appropriate authorities.
- 6.3 Methods and Material for Containment and Cleaning Up:**
Contain spill and dike up using and absorbent material and place into an appropriate container for disposal.
- 6.4 Reference to Other Sections:**
Refer to Section 8 for protective equipment. Refer to Section 13 for disposal guidance.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for Safe Handling:**
Prevent contact with the eyes, skin and clothing. Avoid breathing mist or vapor. Wear protective clothing and equipment. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.
- 7.2 Conditions for Safe Storage, Including any Incompatibilities**
Store in a cool, dry, well ventilated area away from incompatible materials. Store in original container, keep container tightly closed and always replace covers. Store at room temperature.
- 7.3 Specific end use(s):**
None known.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	Exposure Limits
Glycolic Acid	None Established
Chlorine dioxide*	0.1 ppm TWA ACGIH TLV 0.3 ppm STEL ACGIH TLV 0.1 ppm TWA OSHA PEL

*Product in use can release chlorine dioxide above the occupational exposure limit. Monitoring should be conducted to ensure worker exposures remain below recommended limits.

8.2 Exposure Controls:

- Engineering Controls:** Use with adequate general or local exhaust ventilation to minimize exposure levels. Local exhaust ventilation may be required during to use to keep exposure to chlorine dioxide below exposure limits.
- Eye and Face:** Chemical safety goggles should be worn where splashing is possible.
- Skin:** Impervious gloves are required if contact is possible.
- Respiratory:** In operations where exposure is excessive or irritation is experienced, a NIOSH approved respirator with organic vapor cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.
- Protective Clothing:** Long-sleeved clothing and long pants recommended to avoid prolonged skin contact. Suitable washing facilities should be available in the work area.
- Work Hygienic Practices:** A safety shower and eye wash should be available in the immediate work area.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties:

Physical State: Liquid	Appearance: Light yellow to green liquid
Odor: Pungent Odor	Odor Threshold: Not determined
pH: 2.8	Specific Gravity: 1.01
Boiling Point: Not determined	Melting Point: Not determined
Vapor Pressure: Not determined	Water Solubility: Complete at 1 atm and 25°C (77°F)
Vapor Density: Not determined	Evaporation Rate: Not determined
Viscosity: Not determined	Pour Point: Not determined
Flash Point: Not determined	Flammable Limits: LEL: Not determined
Autoignition Temperature: Not determined	Flammable Limits: UEL: Not determined
Percent Volatile: Not determined	Flammability (solid/gas): Not applicable
Partition Coefficient: n-octanol/water: Not determined	Decomposition Temperature: Not determined
Explosive Properties: Not explosive	Oxidizing Properties: The mixture is not an oxidizer. Chlorine dioxide gas that may be released in an oxidizing gas.

9.2 Other Information:

None

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Not reactive

10.2 Chemical Stability:

Stable

10.3 Possibility of Hazardous Reactions:

None expected.

10.4 Conditions to Avoid:

High temperatures. Gaseous chlorine dioxide is emitted on heating. High temperatures will have a negative effect on the quality and the function of the product. UV light sources: UV light causes decomposition.

10.5 Incompatible Materials:

Avoid contact with iron, copper and reducing agents.

10.6 Hazardous Decomposition Products:

May release chlorine dioxide and oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Eye: Causes serious irritation, tearing, and redness. Corneal damage is unlikely.

Skin: May cause irritation, redness and itching.

Ingestion: Ingestion may cause gastrointestinal distress.

Inhalation: Product use may yield chlorine dioxide which can cause severe respiratory irritation.

Chronic Toxicity: None known

Acute Toxicity Data:

Calculated Product ATE:

1:18:1 ratio; Oral LD 50: 229,829 mg/kg, dermal LD50: 235,294 mg/kg, inhalation LC50: 303.9 mg/L

1:4:1 ratio; Oral LD 50: 55,532 mg/kg, dermal LD50: 70,588 mg/kg, inhalation LC50: 216 mg/L

1:3:1 ratio; Oral LD 50: 24,728 mg/kg, dermal LD50: 58,524 mg/kg, inhalation LC50: 68.6 mg/L

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Components:

Glycolic Acid: Oral rat LD50: 2040 mg/kg, inhalation rat LC50: 3.6 mg/L/4 hr

Chlorine dioxide (gas): inhalation rat LC50: 0.04 mg/L/4 hr

Skin corrosion/irritation: This product is classified as irritating to the skin.

Eye damage/irritation: This product is classified as irritating to the eyes.

Respiratory Irritation: Product is not classified as a respiratory irritant.

Respiratory Sensitization: Not expected to be a sensitizer. None of the components of this product are classified as sensitizers.

Skin Sensitization: Not expected to be a sensitizer. None of the components of this product are classified as sensitizers.

Germ Cell Mutagenicity: Product is not classified as a mutagen.

Carcinogenicity: None of the components of this product are listed as carcinogens by OSHA, IARC, NTP, ACGIH and the EU CLP.

Reproductive Toxicity: Product is not classified as toxic to reproduction.

Specific Target Organ Toxicity:

Single Exposure: No data available

Repeat Exposure: No data available

Aspiration Hazard: This product is not classified as an aspiration hazard. None of the components of this product are aspiration hazards.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Glycolic Acid: Pimephales promelas LC50: 164 mg/L/96 hr

Chlorine dioxide: Danio rerio LC50: 0.021 mg/L/96 hr

This product is harmful to aquatic life. Releases to the environment should be avoided.

12.2 Persistence and Degradability:

Glycolic Acid: Readily biodegradable – 78% in 11 days

12.3 Bioaccumulative Potential:

No data available.

12.4 Mobility in Soil:

No data available.

12.5 Results of PBT and vPvB Assessment:

Not required.

12.6 Other Adverse Effects:

Not known

SECTION 13: DISPOSAL INFORMATION

13.1 Waste Treatment Methods

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Disposal Method: Dispose in accordance with all local, state and federal regulations.

Empty Container: Remove product residue and dispose of container at an approved waste handling facility.

General Comments: It is the responsibility of the user of this product to characterize wastes generated to determine if the waste meets the definition of hazardous waste.

SECTION 14: TRANSPORT INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Transport Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	None	Not regulated	None	None	Not applicable
EU ADR/RID	None	Not regulated	None	None	Not applicable
IMDG	None	Not regulated	None	None	Not applicable
IATA	None	Not regulated	None	None	Not applicable

14.6 Special Precautions for User:

None

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code:

Not determined

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:

US Regulations:

EPA SARA 311/312 Hazard Classification: Acute Health

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

CERCLA Section 103: This product is not subject to CERCLA spill reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product is not known to contain chemicals regulated under Proposition 65.

US Toxic Substances Control Act (TSCA): All the components of this product are listed.

15.2 Chemical Safety Assessment:

Not required

SECTION 16: OTHER INFORMATION

NFPA RATING (NFPA 704) - FIRE: 1 HEALTH: 2 INSTABILITY: 0

GHS Classification for Reference (See Sections 2 and 3):

H270 May cause or intensify fire; oxidizer

H280 Contains gas under pressure; may explode if heated

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H330 Fatal if inhaled

H400: Very toxic to aquatic life

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SDS Date of Preparation: 06/30/2016

Date of Current Revision: June 30, 2016

Revision Summary: Updated format and all sections to comply with REACH Regulations

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