

RediOx™

SAFETY DATA SHEET

Preparation Date: 13-Apr-2011

Revision Date: 29-Jan-2021

Revision Number: 4

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Name RediOx™

Other means of identification

Item#: 2230

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Chlorine dioxide hard surface sanitizer, Restricted to professional users

Uses advised against All other

Details of the supplier of the safety data sheet

Supplier DeLaval Cleaning Solutions
11100 N. Congress Ave.
Kansas City, MO 64153
Tel: 816-891-7700, 8am – 5pm M-F

Emergency Telephone Number

Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Acute Toxicity - Oral	Category 4
Acute Toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2B

Label Elements

Emergency Overview

WARNING

Hazard Statements

Causes skin irritation
Causes eye irritation
Harmful if swallowed
Harmful in contact with skin
HARMFUL IF INHALED



Appearance Yellow Green**Physical state** Liquid**Odor** Pungent**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. Do not induce vomiting.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Chlorine dioxide	10049-04-4	0.3

If a concentration range is shown, the exact concentration has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first-aid measures

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Consult a physician if necessary.
Inhalation	Do not breathe dust. Call a physician or Poison Control Center immediately. Give oxygen or artificial respiration if needed. Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water.

Unsuitable Extinguishing Media

No information available.

Specific hazards arising from the chemical

No information available.

Hazardous Combustion Products

chlorine compounds including hydrogen chloride

Sensitivity to static discharge None.**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA Health hazards 1 Flammability 0 Instability 1**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE**Precautions for Safe Handling****Handling** Handle in accordance with good industrial hygiene and safety practice.**Conditions for safe storage, including any incompatibilities****Storage** The material should be stored indoors, only in the containers in which it is shipped, or in containers authorized by the manufacturer for such storage. Storage temperatures should be maintained above 50°F and below 110°F. The material should not be stored outside or exposed to freezing temperatures (below 32°F). The material should not be heated to temperatures in excess of 140°F.**Incompatible Materials** light metals (e.g. aluminum, copper, brass, zinc galvanized), reducing agents, strong oxidizing agents, organic materials**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters**

Only constituents with exposure limits are listed. Any constituent not listed has no known exposure limit.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Chlorine dioxide 10049-04-4	Ceiling: 0.1 ppm	TWA: 0.1 ppm TWA: 0.3 mg/m ³ STEL: 0.3 ppm STEL: 0.9 mg/m ³	5 ppm

IDLH: Immediately Dangerous to Life or Health

Appropriate engineering controls**Engineering Controls** Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face Protection	If splashes are likely to occur, wear:. Face-shield. Goggles.
Skin and body protection	Wear protective gloves and protective clothing.
Respiratory Protection	In case of inadequate ventilation wear respiratory protection.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state	Liquid	Odor	Pungent
Appearance	Yellow Green	Odor Threshold	No information available
Property	Values	Remarks/ Method	
pH	No information available		
Melting point/freezing point	No information available		
Boiling Point/Range	100 °C / 212 °F		
Flash Point	No information available		
Evaporation rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit	No information available		
Lower flammability limit	No information available		
Vapor Pressure	No information available		
Vapor Density	No information available		
Specific Gravity	No information available		
Water Solubility	No information available		
Partition coefficient: n-octanol/water	No information available		
Autoignition Temperature	No information available		
Decomposition temperature	No information available		
Viscosity of Product	No information available		
Dynamic viscosity	No information available		
Other information			
Liquid Density	No information available		

10. STABILITY AND REACTIVITY**Reactivity**

May react with other chemicals. Do not mix with other chemicals except as directed on label.

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None known.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

light metals (e.g. aluminum, copper, brass, zinc galvanized), reducing agents, strong oxidizing agents, organic materials

Hazardous decomposition products

Chlorine. Hydrogen chloride gas.

11. TOXICOLOGICAL INFORMATION

Principal Routes of Exposure Eye contact, Skin contact, Inhalation, Ingestion

Information on likely routes of exposure

Eyes Avoid contact with eyes. Moderately irritating to the eyes.
Skin Avoid contact with skin. May cause skin irritation. Prolonged skin contact may cause skin irritation and/or dermatitis.
Ingestion Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Inhalation Harmful by inhalation. Avoid breathing vapors or mists. Irritating to mucous membranes. Product dust may be irritating to eyes, skin and respiratory system.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization Product is not identified as a sensitizer according to OSHA regulations.
Mutagenic effects Product is not identified as a mutagen according to OSHA regulations.
Carcinogenicity Product is not identified as a carcinogen according to OSHA regulations.

Reproductive Effects Product is not identified as having reproductive effects according to OSHA regulations.
STOT - single exposure Product is not identified as having single target organ toxicity (single exposure) according to OSHA regulations.
STOT - repeated exposure Product is not identified as having single target organ toxicity (repeated exposure) according to OSHA regulations.
Aspiration Hazard Product is not identified as an aspiration hazard according to OSHA regulations.

Numerical measures of toxicity

If available, toxicity values of individual components are shown below.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Chlorine dioxide 10049-04-4	= 292 mg/kg (Rat)	No data available	= 32 ppm (Rat) 4 h

0% of the mixture consists of ingredient(s) of unknown toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

If available, ecotoxicity values of individual components are shown below.

Persistence and degradability

No information available.

Bioaccumulation/Accumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Contact your local waste disposal authority for advice, or pass to a chemical disposal

company.

Contaminated Packaging

Triple rinse containers. Avoid contamination of any water supply with product or empty packaging. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT

UN-No	1760
Proper Shipping Name	Corrosive liquid, n.o.s (chlorine dioxide aqueous solution 0.3%)
Hazard Class	8
Packing Group	III

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (SARA) - Section 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Chlorine dioxide (CAS# 10049-04-4)

State Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Chlorine dioxide 10049-04-4	X	X	X

U.S. EPA Label information

EPA Pesticide registration number Not applicable

16. OTHER INFORMATION

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Revision Note:	None

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of SDS