

Section 1 - Identification

Product Name: Rinker Surface Defense Solution (Chlorine Dioxide solution)
Others name of Identification: Chlorine Peroxide, ClO₂
Product Description: Disinfection
Product Type: Liquid
Manufacturer Name: Rinker Products & Services
Address: 2500 W Mt. Houston Rd. Suite F
Houston, TX, 77038
Emergency Phone: (713) 859-1000

Section 2 – Hazards Identification

Classification of the substance: Skin Corrosion (Category 1)
Acute toxicity, Inhalation (Category 1)
Acute toxicity, Dermal (Category 1)
Serious eye damage (Category 1)
Acute toxicity (Oral) Category 3

GHS Hazard Symbols:



GHS Signal Word: Danger

Hazard Statements:

H270: May cause or intensify fire; oxidizer
H302 - Harmful if swallowed.
H312 Harmful in contact with skin
H330: Fatal if inhaled.
H314 Causes severe Skin Burns and eye damage.
H319 Causes Serious eye irritation.



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Precautionary Statements:

Prevention:

P220 -Keep/Store away clothing /combustible material.
P261- Avoid breathing dust/fume/gas/mist/vapors/spray.
P273- Avoid release to the environment.
P280- Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+340- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 -IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309+P311 -IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician.

Storage:

P405- Store locked up
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:

P501- Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental Hazard Statements: none

Section 3 – Composition

Ingredient	CAS No.	Composition
ClO ₂	10049-04-4	0.006%
Na ₂ CO ₃	497-19-8	0.0085%
NaCl	7647-14-5	0.0453%
C ₆ H ₅ O ₇ Na ₃	1637-73-6	0.0118%
Na ₂ SO ₄	7757-82-6	0.0157%
MgSO ₄	7487-88-9	0.008%



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Section 4 – First-Aid Measures

Description of first aid measures:

Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.
Skin contact:	Immediately wash skin with soap and copious amounts of water while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Ingestion:	May cause irritation to the mucus membranes. DO NOT GIVE ANYTHING BY MOUTH OR INDUCE VOMITING IF THE PATIENT IS UNCONSCIOUS. Give large amounts of water to dilute stomach contents. Get immediate medical attention.
Inhalation:	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt, or waistband. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If irritation develops and persists, seek medical attention. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious, or corrosive. Seek immediate medical attention.
Notes to Physician:	Treat symptomatically

Section 5 – Fire-Fighting Measures

Extinguishing media suitable:	When combustibles are burning in the presence of chlorine dioxide (or other strong oxidizers) water is the only effective extinguishing medium.
Special Hazards arising from the Substance or mixture:	Under fire conditions toxic fumes may be released. Thermal decomposition can lead to release of irritating gases and vapors. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Keep product and empty



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container away from heat and sources of ignition. This chemical has strong oxidizing soluble in water.

Special protective fire-fighter actions:

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

Firefighting equipment/instructions:

When combustibles are burning in the presence of chlorine dioxide (or other strong oxidizers) water is the only effective extinguishing medium. DO NOT use dry chemical fire extinguishing agents containing ammonium compounds (such as some A:B:C agents) on oxidizers that contain chlorine, since an explosive compound (nitrogen trichloride) can be formed. DO NOT use Halon extinguishers or halocarbon extinguishers, because they can react with chlorine dioxide. DO NOT use carbon dioxide, dry chemical powder or other extinguishing agents that smother flames, since they are not effective in extinguishing fires involving oxidizers.

Section 6 – Accidental Release Measures

Personal Precautions, protective equipment, and emergency procedures:

For non-emergency personnel:

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Spilled or released at long industrial condition: Remove ignition sources, keep away from heat and flame, evacuate area. Avoid dust formation. Avoid breathing dust.

Environmental Precautions:

Keep spilled material out of sewers, ditches, and bodies of water. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up:

Sweep up and place in suitable containers for recycle or disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.



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Section 7 – Handling and Storage

Precautions for safe handling:

Protective measures:

In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Avoid physical damage to the container. Ground and bond containers when transferring material. Take necessary action to avoid static electricity discharge. Do not eat, drink, or smoke while handling the product. Do not get water inside containers.

Conditions for safe storage, including any incompatibilities:

Keep away from heat and flame. Store in a cool, dry, well-ventilated area away from incompatible substances and foodstuff containers. Store in a tightly closed container. Optimal efficacy of the product will be prolonged if Neutral Anolyte is stored away from direct sunlight and in sealed, airtight opaque or tinted glass containers.

Other precautions:

Keep out of the reach of children.

Section 8 – Exposure Controls/Personal Protection

Engineering controls

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentration low.

Personal Protective Equipment:

Eye Protection:

Wear chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin Protection

Wear appropriate protective gloves.

Body Protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place. Use of full chemical protective suits if coming into contact with large



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volume of chlorine dioxide solution. In the event of a fire, use fire protective firefighting gear (including consideration of any other hazardous materials which may be present).

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9 – Physical and Chemical Properties

Physical state:	Liquid
Appearance:	Liquid
Color:	Yellow
Odor:	Chlorine taste
pH:	No date available
Evaporate Rate:	No date available.
Flash point	No date available.
Flammability (Solid, gas):	No date available
Boiling point:	100 °C
Melting point:	0 °C

Section 10 - Stability and Reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions:

Hazardous Polymerization: Will not Occur.

Hazardous reactions: None under normal processing



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Conditions to Avoid: Decomposes on heating.

Incompatible materials: Strong acids and oxidizing agents Organic materials, chlorinated compounds, Reducing agents.

Hazardous decomposition products: Chlorine and oxygen are main decomposition products of gaseous chlorine dioxide.

Section 11 – Toxicological Information

Acute toxicity:

Product/ingredient	Species	Test Results
Chlorine Dioxide Solution	LD50 rat (oral)	5980 mg/kg.

Skin Corrosion/Irritation: Severe irritant

Serious eye damage/eye irritation: Severe irritant

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: Sodium chlorite- This product is or contains a component that is not classifiable as to its carcinogenicity by IARC or ACGIH

Specific target organ toxicity: No data available

Aspiration hazard: No data available

Potential Health Effects:

Eye: Severely irritant. Exposure may cause visual disturbance.

Skin: May be harmful if absorbed through skin. Skin contact can produce inflammation (itching, reddening etc.) and blistering. Prolonged exposure may result in skin burns and ulcerations.



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Ingestion:	Ingestion is an unlikely route of exposure; no hazard in normal industrial use.
Inhalation:	A severe respiratory irritant. May cause bronchospasm and pulmonary oedema, which may be delayed in onset. May also cause severe headache. All symptoms may be delayed and long-lasting. Long term exposure may cause chronic bronchitis.
Signs and Symptoms of Exposure	Chlorine dioxide irritates the nose, throat, trachea and bronchi at very low concentrations (less than 5 ppm) resulting in breathlessness, wheezing and coughing. Higher concentrations can cause inflammation. A potentially fatal accumulation of fluid in the lungs (pulmonary edema) could occur. Symptoms of pulmonary edema (chest pain and shortness of breath) can be delayed for up to 24 or 48 hours after exposure. Long-term respiratory effects (e.g. sensitivity to respiratory irritants, chronic nasal inflammation, asthma, pulmonary emphysema and spastic bronchitis) have been noted in workers accidentally exposed to unspecified concentrations for a short time.

Section 12 – Ecological Information

Ecotoxicity:	No data available
Persistence and degradability:	No data available
Bioaccumulative potential:	No data available
Mobility in soil:	No data available
Other adverse effects:	Do not empty into drains.
Hazards:	No known significant effects or critical hazards.

Section 13 – Disposal Considerations

Waste treatment methods

Waste from Residues:	Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
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Contaminate packaging: Contaminated packaging material should be treated equivalent to residual chemical. Clean packaging material should be subjected to waste management schemes (recovery, recycling, reuse) according to local legislation.

Section 14 – Transport Information

US Transportation Regulations:

DOT Classification: 4.3 Dangerous when wet

DOT Proper Shipping Name: Water reactive solid, n.o.s. (Sodium chlorite)

Packing Group: II

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15 – Regulatory Information

This safety datasheet complies with the requirement of Regulation (EC) No. 1907/2006.

U.S. federal regulations

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

Canada: All components of this product are listed on Canada's DSL List.

Section 16 – Other Information

SDS Version: 1
SDS Version Date: December 17,2020

DISCLAIMER:

Information presented in this SDS is furnished in accordance with the Workplace Hazardous Materials Information System (WHMIS). This information provided was developed and is provided for educational



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