

# SAFETY DATA SHEET

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

## 1. Identification

<b>Product identifier</b>	<b>ERCOPure™ 15</b>
<b>Other means of identification</b>	Sodium Chlorite Solution, ERGOPURE
<b>Recommended use</b>	Generation of chlorine dioxide for use as an oxidant. Bleaching of textiles and other fibers.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer</b>	
<b>Company name</b>	International Dioxide, Inc.
<b>Address</b>	40 Whitecap Drive North Kingstown, RI 02852 United States of America
<b>Telephone</b>	Information #: (800) 477-6071
<b>Website</b>	<a href="https://idiclo2.com">https://idiclo2.com</a>
<b>E-mail</b>	idiclo2@ercoworldwide.com
<b>Emergency phone number</b>	Canada & U.S.A.: (800) 424 9300 (CHEMTREC) International: (703) 527 3887
<b>Supplier</b>	Refer to Manufacturer

## 2. Hazard(s) Identification

<b>Physical hazards</b>	None	
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 3
	Serious eye damage	Category 1
	Specific target organ toxicity, repeated exposure (blood, kidneys, liver, spleen)	Category 2
	Skin corrosive	Category 1C
<b>Environmental hazards</b>	Not currently regulated by OSHA, refer to Section 12 for additional information.	
<b>OSHA defined hazards</b>	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Harmful if swallowed. Toxic if inhaled. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure (blood, kidneys, liver, spleen). Causes severe skin burns and eye damage.
<b>Precautionary statement</b>	
<b>Prevention</b>	Wear protective gloves, protective clothing, eye protection, face protection. Do not eat, drink or smoke when using this product. Do not breathe dust, fume, gas, mists, vapors, spray. Wash hands and face thoroughly after handling. Use only outdoors or in a well-ventilated place.
<b>Response</b>	Immediately call a POISON CENTER or doctor/physician.  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse skin with water/or shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  Specific treatment (see Section 4 of the SDS)
<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents and containers in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	No OSHA defined hazard classes. Other hazards which do not result in classification: Contact with some metals will generate flammable hydrogen gas. Chronic skin contact with low concentrations may cause dermatitis. Contact with acids or reducing agents will generate toxic chlorine dioxide gas.
<b>Supplemental information</b>	Not applicable.

### 3. Composition/Information on Ingredients

Chemical name	Common name and synonyms	CAS number	Conc. % By Weight
Sodium Chlorite	None	7758-19-2	15 w/w%
Dihydrogen Oxide	Water	7732-18-5	Balance

**Chemical name of impurities, stabilizing solvents and/or additives:** None.

### 4. First-Aid Measures

**Inhalation** Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should give oxygen. If breathing stops, provide artificial respiration. Immediately call a POISON CENTER or doctor/physician.

**Skin Contact** Take off immediately all contaminated clothing. Immediately flush skin with running water for at least 20 minutes. Wash contaminated clothing promptly. Leather and shoes that have been contaminated with the solution may need to be destroyed. Immediately call a POISON CENTER or doctor/physician.

**Eye Contact** Immediately flush eyes with plenty of water for at least 20 minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor/physician.

**Ingestion** Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions. Call a POISON CENTER or doctor/physician if you feel unwell.

**Most important symptoms/effects, acute and delayed** Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May be harmful or fatal if swallowed. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Can cause severe skin burns. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Prolonged exposure may cause chronic effects. Material is irritating to mucus membranes and upper respiratory tract. Symptoms may include bloody nose and sneezing. High concentrations may cause lung damage.

**Indication of immediate medical attention and special treatment needed** Immediate medical attention is required. Causes chemical burns. May be harmful or fatal if swallowed. Symptoms may be delayed.

**General information** Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

## 5. Fire-Fighting Measures

<b>Suitable extinguishing media</b>	Water spray, fog (flooding amounts). Water only; no dry chemical, CO <sub>2</sub> or Halon. This product itself does not burn but combustibles wetted with this solution and subsequently dried are easily ignited and burn vigorously.
<b>Unsuitable extinguishing media</b>	DO NOT use dry chemical fire extinguishing agents containing ammonium compounds (such as some A:B:C agents), since an explosive compound can be formed. 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. Use chemical extinguishing agents with caution.
<b>Specific hazards arising from the chemical</b>	May intensify fire; oxidizer when dry. Drying of this product on clothing or combustible materials may cause fire.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Firefighting equipment/instructions</b>	Evacuate area. Remove all sources of ignition. In case of fire: Stop leak if safe to do so. Move combustibles out of path of advancing pool if you can do so without risk. Move containers from fire area if you can do so without risk. Fight fire from upwind to avoid exposure to combustion products. In case of fire and/or explosion do not breathe fumes.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	May intensify fire; oxidizer when dry.
<b>Hazardous combustion products</b>	Disodium oxide. Hydrogen chloride. Oxygen. Contact with acids, organic materials, reducing agents or chlorine donors will produce chlorine dioxide gas and heat. Ventilate area with large amounts of air to keep the chlorine dioxide concentration low.

## 6. Accidental Release Measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. DO NOT USE RAGS, SAWDUST OR OTHER COMBUSTIBLE ABSORBENTS.
--	---

**Methods and materials  
for containment and  
cleaning up**

Ventilate the contaminated area. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Absorb in dry sand or earth and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Do not let the product dry.

**Small Spills:** Absorb spill with dry sand, earth or other inert material. Neutralize the spilled material before disposal.

**Large Spills:** Stop the leak, if this is without risk. Dike the spilled material, where this is possible. Absorb in dry sand or earth and place into containers. If not recoverable, dilute with water or flush to holding area and neutralize. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental  
precautions**

Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.

## 7. Handling and Storage

**Precautions for safe  
handling**

Use only in a well-ventilated area. Wear chemically resistant protective equipment during handling. Do not breathe mist or vapor. Do not taste or swallow. Keep away from heat. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not let the product dry. When using, do not eat, drink or smoke. Keep away from clothing and other combustible materials. Observe good industrial hygiene practices. Avoid release to the environment.

**Conditions for safe  
storage, including any  
incompatibilities**

Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Store away from incompatible materials (see Section 10 of the SDS). Store in original tightly closed container. Do not store near combustible materials. Do not handle or store near an open flame, heat or other sources of ignition.

## 8. Exposure Controls/Personal Protection

**Occupational Exposure Limits**

No exposure limits noted for ingredient(s).

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering  
controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or

other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use separate, corrosion-resistant ventilation system to capture mist or fume. Do not use wood or other combustibles to construct vent system. Prevent entry into bearings or gear boxes, which could cause an explosion. Provide eyewash station.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin protection**

**Hand protection**

Gloves impervious to the material are recommended, such as butyl rubber or neoprene gloves. Advice should be sought from glove suppliers.

**Other**

Where contact is likely, wear chemical-resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield. Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Eye wash facilities and emergency shower must be available when handling this product.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment. A NIOSH/MSHA approved air-purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may be used to reduce exposure. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134). Seek advice from respiratory protection specialists.

**Thermal Hazards**

None.

**General hygiene considerations**

Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and Chemical Properties

<b>Appearance</b>	Aqueous solution.
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Clear water-white to slightly yellow liquid
<b>Odor</b>	Odorless to slight Chlorine-like or faint bleach-like
<b>Odor threshold</b>	Not available
<b>Molecular formula</b>	NaClO <sub>2</sub>
<b>Molecular weight</b>	90.45
<b>pH</b>	>11.5
<b>Melting point/Freezing Point</b>	Not available
<b>Initial boiling point and boiling range</b>	105 °C (1013 hPa)
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not available
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit – lower (%)</b>	Not applicable
<b>Flammability limit – upper (%)</b>	Not applicable
<b>Explosive limit – lower (%)</b>	Not available
<b>Explosive limit – upper (%)</b>	Not available
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Relative density</b>	Not available
<b>Solubility (ies)</b>	
<b>Solubility (water)</b>	Miscible in water
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available
<b>Viscosity</b>	Not available
<b>Other information</b>	
<b>Density</b>	1.11 to 1.124 g/cm <sup>3</sup>
<b>Flammability</b>	Not applicable
<b>Specific gravity</b>	1.11 to 1.12
<b>Surface tension</b>	Not available

## 10. Stability and Reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport. Reacts on mixing with acids to give toxic chlorine dioxide and chlorine gases. Mixtures with combustibles, if allowed to dry out, are easily ignited by heat or friction and burn vigorously or may explode.
<b>Chemical stability</b>	Material is stable under normal conditions. Will decompose if heated. Absorption of atmospheric carbon dioxide may lower the pH of the solution, which will cause it to slowly decompose.

<b>Possibility of hazardous reactions</b>	Contact with acids, organic materials, reducing agents and oxidizing agents will release toxic gases of chlorine and/or chlorine dioxide.
<b>Conditions to Avoid</b>	Keep away from heat, sparks and open flame. Keep away from direct sunlight and contact with incompatible materials. This product may react with reducing agents.
<b>Incompatible materials</b>	Combustible material. Acids. Organic compounds. Oxidizing agents. Metals. Sulfur and Sulfur-containing materials. Ethylene glycol. Ammonia. Amines. Phosphorus. Reducing agents.
<b>Hazardous decomposition products</b>	In the event of fire, the following can be released: Chlorine, Chlorine Dioxide.

## 11. Toxicological Information

### Information on likely routes of exposure

<b>Inhalation</b>	Toxic if inhaled.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage/irritation.
<b>Ingestion</b>	Harmful if swallowed.

### Delayed and immediate effects and chronic effects from short-term and long-term exposure

#### Effects of short-term (acute) exposure

Causes serious eye damage, may cause severe irritation and possibly burns. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Causes severe skin burns. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Acute ingestion of large quantities may also cause anemia due to the oxidizing effects of the chemical.

Material is irritating to mucous membranes and upper respiratory tract. Symptoms may include coughing, bloody nose and sneezing. High concentrations can cause lung damage.

May be harmful or fatal if swallowed. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

#### Effects of long-term (chronic) exposure

Prolonged exposure may cause chronic effects. Dermatitis is likely to occur from repeated or prolonged contact. Other symptoms may include methemoglobinemia (causes bluish discoloration of the skin and mucous membranes). Will irritate and may cause corrosion of the gastrointestinal tract.



**Information on toxicological effects**

**Acute toxicity**

Product	Species	Test Results
Sodium Chlorite Solution 25%		
<b>Acute</b>		
Inhalation		
LC <sub>50</sub>	Rat	0.92 mg/L (Calculated ATE at 25%)
Oral		
LD <sub>50</sub>	Rat	660 mg/kg (Calculated ATE at 25%)

Product	Test	Test Results
Sodium Chlorite Solution 25%		
Dermal	OECD Guideline 435, "In Vitro Membrane Barrier Test Method for Skin Corrosion"	31.5 min (Average breakthrough time calculated at 25.4%)

Components	Species	Test Results
Sodium Chlorite (CAS 7758-19-2)		
<b>Acute</b>		
LC <sub>50</sub>	Rat	0.23 mg/L (Mist)
Oral		
LD <sub>50</sub>	Rat	165 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Can cause severe skin burns.

**Serious eye damage/eye irritation** Can cause serious eye damage/irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not expected to be a respiratory sensitizer.

**Skin sensitizer** Not sensitizing.

**Germ cell mutagenicity** Not expected to be mutagenic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity** Sodium Chlorite (CAS 7758-19-2) Not classifiable as to carcinogenicity to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)** Not listed.

**Reproductive toxicity** Not classified as a reproductive toxin.

**Specific target organ toxicity - single exposure** Not classified as a specific target organ toxicity -single exposure.

**Specific target organ toxicity - repeated exposure** Specific Target Organ Toxicity (STOT), Repeated Exposure: blood, kidneys, liver, spleen.

**Aspiration toxicity** Not expected to be an aspiration hazard.

**Chronic effects** Chronic skin contact with low concentrations may cause dermatitis. Prolonged or repeated overexposure may cause blood, liver, spleen and kidney effects.

## 12. Ecological Information

**Ecotoxicity** Toxic to aquatic life. In water and soil, sodium chlorite will eventually degrade to sodium chloride.

Product	Species	Test Results
Sodium Chlorite (CAS 7758-19-2)		
<b>Aquatic</b>		
Acute		
Algae	EC <sub>50</sub> Green algae ( <i>Selenastrum capricornutum</i> )	1.2 mg/l
Crustacea	EC <sub>50</sub> Water flea ( <i>Daphnia</i> )	0.025 mg/l
Fish	LC <sub>50</sub> Sheepshead minnow ( <i>Cyprinodon variegatus</i> )	110 mg/l
Chronic		
Algae	EC <sub>50</sub> Green algae ( <i>Selenastrum capricornutum</i> )	1 mg/l

**Persistence and degradability** Biodegradation is not applicable to inorganic substances.







**Bioaccumulative potential** The product itself has not been tested.

<b>Mobility in soil</b>	In soil, will degrade to sodium chloride but may form chlorine dioxide in contact with acidic soils. Chlorate is an intermediate product of decomposition; it will slowly degrade to chloride.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal Considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). (40 CFR 261.20-24) Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product, should be classified as a hazardous waste. (40 CFR 261.20-24)
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

Regulatory Information	UN Number	Proper Shipping Name	Classes	Packing Group	Label	Other Information
<b>DOT Classification</b>	UN1908	Chlorite solution	8	III	 	<b>Marine Pollutant</b> Marine Pollutant  A3, A6, A7, B2, IB2, N34, T7, TP2, TP24
<b>IMDG Class</b>	UN1908	CHLORITE SOLUTION	8	III	 	<b>Marine Pollutant</b> Marine Pollutant  <u>Emergency schedules (EmS)</u> F-A, S-B
<b>IATA-DGR Class</b>	UN1908	Chlorite solution	8	III	 	<b>Marine Pollutant</b> Marine Pollutant  <u>Passenger aircraft</u> 851: 1 L  <u>Cargo aircraft</u> 855: 30 L

RQ: 0 lbs.

## 15. Regulatory Information

### US federal regulations

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

**CERCLA Hazardous Substance List (40 CFR 302.4)**

**SARA 304 Emergency release notification**

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List. Not regulated.

Not listed.

Not regulated.

Not listed.

**Superfund Amendments and  
Reauthorization Act of 1986 (SARA)**

**Hazard categories**

**SARA 302 Extremely  
hazardous substance**

**SARA 311/312 Hazardous  
chemical**

**SARA 313 (TRI reporting)**

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No  
Not listed.

No

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section  
112 Hazardous Air Pollutants  
(HAPs) List**

**Clean Air Act (CAA) Section  
112(r) Accidental Release  
Prevention (40 CFR 68.130)**

**Safe Drinking Water Act  
(SDWA)**

Not regulated.

Not regulated.

Not regulated.

**US state regulations**

**US. California Controlled  
Substances. CA Department  
of Justice (California Health  
and Safety Code Section  
11100)**

**US. Massachusetts RTK -  
Substance List**

**US. New Jersey Worker and  
Community Right-to-Know  
Act**

**US. Pennsylvania RTK –  
Hazardous Substances**

**US. Rhode Island RTK**

**US. California Proposition 65**

Not listed.

Sodium Chlorite (CAS 7758-19-2)

Sodium Chlorite (CAS 7758-19-2)

Sodium Chlorite (CAS 7758-19-2)

Not regulated.

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other Information**

<b>Issue date</b>	8/9/2021
<b>Revision #</b>	6
<b>Revision Indicator</b>	Company logo updated.
<b>List of abbreviations</b>	ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstract Services CERCLA: Comprehensive Environmental Response, Compensation and Liability Act of 1980 CFR: Code of Federal Regulations DOT: Department of Transportation EPA: Environmental Protection Agency EPCRA: Emergency Planning and Community Right-to-Know Act ERG: Emergency Response Guidebook HSDB® - Hazardous Substances Data Bank IARC: International Agency for Research on Cancer IATA: International Air Transport Association IBC: Intermediate Bulk Container IDLH: immediately dangerous to life or health IMDG: International Maritime Dangerous Goods

LC: Lethal Concentration  
LD: Lethal Dose  
NIOSH: National Institute of Occupational Safety and Health  
NOEC: No observable effect concentration  
NTP: National Toxicology Program  
OECD: Organization for Economic Cooperation and Development  
OEL: National occupational exposure limits  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible exposure limit  
RCRA: Resource Conservation and Recovery Act  
RQ: Reportable Quantity  
RTECS: Registry of Toxic Effects of Chemical Substances  
SAR: supplied-air respirator  
SCBA: self-contained breathing apparatus  
SDS: Safety Data Sheet  
STEL: Short Term Exposure Limit  
TWA: Time Weighted Average  
UN: United Nations

**References**

None.

**Disclaimer**

Information presented in this SDS is furnished in accordance with OSHA's Hazard Communication Standard (HCS) 2012.

This information provided was developed and is provided for educational purposes and is not intended to be, nor should it be construed as, legal advice or as ensuring compliance with any laws or regulations of any jurisdiction. ERCO Worldwide, A division of Superior Plus LP ("ERCO") assumes no responsibility and shall have no liability for any inaccuracies, errors or omissions in, nor for any damages (including consequential, or indirect damages), losses, costs, fees, resulting from the use of, or reliance on, any part of this information. Likewise, ERCO assumes no responsibility for injury to, or the death of, recipient(s) or users of this information, or for any loss or damage to any property, arising from the use or consideration of this information. The recipient(s) and users, and each of their respective employees and agents, assume all responsibility and liability for all such risks, costs, losses, damages, fees, or otherwise, even if caused by the negligence, omission, default, or error in judgement of ERCO, its agents, subsidiaries, affiliates, or representatives.

Recipients or users of this information should ensure, and are responsible for, its compliance with the current state of the law and legislation applicable thereto, and the content of the laws and regulations of any other jurisdictions, as applicable. Any person receiving or using this SDS is responsible for and must exercise their own judgment and due diligence in ensuring safe and lawful use and handling of any product or information, as they assume the risk of using or relying on any information contained herein.