

SAFETY DATA SHEET

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

1. Identification

Product identifier ERCOPure™ BCD-7.5

Other means of identification Sodium Chlorite Solution, ERCOPure

Recommended use Generation of chlorine dioxide for use as a disinfectant, or for use

as an oxidant. Bleaching of textiles and other fibers.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name International Dioxcide, Inc. an ERCO Worldwide Company

Address ERCO Worldwide

5050 Satellite Drive

Mississauga ON, L4W 0G1

Canada

Telephone (416) 239-7111 (M- F: 8:00 am – 5:00pm EST)

Website https://idiclo2.com

E-mail idiclo2@ercoworldwide.com

Emergency phone number Canada & U.S.A.: (800) 424 9300 (CHEMTREC)

International: (703) 527 3887

Supplier Refer to Manufacturer

2. Hazard(s) Identification

Physical hazards None

Health hazards Acute toxicity, oral Category 5

Acute toxicity, inhalation Category 4
Serious eye damage Category 1
Specific target organ toxicity, repeated Category 2

exposure (blood, kidneys, liver, spleen)

Skin corrosive Category 1C

Environmental hazards Not currently regulated by the Canadian Hazardous Products

Regulation (WHMIS 2015), refer to Section 12 for additional

information.

Label elements



Signal word Danger



Hazard statement May be harmful if swallowed.

Harmful 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.

Precautionary statement

Prevention Wear protective gloves, protective clothing, eye protection, face

protection. Do not breathe gas, mists, vapours, spray. Wash hands and face thoroughly after handling. Use only outdoors or in a well-

ventilated area.

Response IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

Rinse mouth. Do not induce vomiting.

IF INHALED: Remove person to fresh air and keep comfortable for

breathing. Immediately call a POISON CENTER or doctor.

IF ON SKIN (or hair): Take off immediately all contaminated clothing

Rinse skin with water or shower.

Wash contaminated clothing before reuse.

If skin irritation occurs: Get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.

IF exposed or concerned: Call a POISON CENTER or doctor.

Storage Store locked up.

Disposal Dispose of contents and containers in accordance with

local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

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.

If Sodium Chlorite dries on some types of fire-retardant clothing it is known to cause an exothermic reaction. The reaction has been known to cause burns to skin. Nomex appears to be the only material

not to experience this reaction.

Supplemental information Not applicable.

3. Composition/Information on Ingredients

Chemical name	Common name and synonyms	CAS number	Conc. % By Weight
Sodium Chlorite	None	7758-19-2	7.5 w/w%

Page **2** of **14** Issue Date: 3/31/2022



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. Call a POISON CENTER or doctor/physician if you feel unwell

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 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 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.

> Page **3** of **14** Issue Date: 3/31/2022



5. Fire-Fighting Measures

Suitable extinguishing media

Water spray, fog (flooding amounts). Water only; no dry chemical, CO_2 or Halon. This product itself does not burn but combustibles wetted with this solution and subsequently dried are easily ignited and burn vigorously.

Unsuitable extinguishing media

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.

Specific hazards arising from the chemical

May intensify fire; oxidizer when dry. Drying of this product on clothing or combustible materials may cause fire.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

If Sodium Chlorite dries on some types of fire-retardant clothing it is known to cause an exothermic reaction. The reaction has been known to cause burns to skin. Nomex appears to be the only material not to experience this reaction.

Firefighting equipment/instructions

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.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

May intensify fire; oxidizer when dry.

Hazardous combustion products

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

Personal precautions, protective equipment and emergency procedures 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

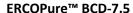
Occupational exposure limits No exposure limits noted for ingredient(s).

Biological limit valuesNo 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

Page **5** of **14** Issue Date: 3/31/2022





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.

If Sodium Chlorite dries on some types of fire-retardant clothing it is known to cause an exothermic reaction. The reaction has been known to cause burns to skin. Nomex appears to be the only material not to experience this reaction.

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

If Sodium Chlorite dries on some types of fire-retardant clothing it is known to cause an exothermic reaction. The reaction has been known to cause burns to skin. Nomex appears to be the only material not to experience this reaction.

General hygiene considerations

Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Upon

Page **6** of **14** Issue Date: 3/31/2022



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

Appearance Aqueous solution.

Physical state Liquid. Form Liquid.

Colour Clear water-white to slightly yellow liquid

Odor Odorless to slight Chlorine-like or faint bleach-like

Odor thresholdNot availableMolecular formulaNot availableMolecular weightNot available

pH >11

Melting point/Freezing pointNot availableInitial boiling point and boiling range104 °C (1013 hPa)Flash pointNot applicableEvaporation rateNot availableFlammability (solid, gas)Not available

Upper/lower flammability or explosive limits

Flammability limit – lower (%)
Flammability limit – upper (%)
Explosive limit – lower (%)
Explosive limit – upper (%)

Vapor pressure
Vapor density
Relative density
Not available
Not available
Not available
Not available

Solubility (ies)

Solubility (water) Miscible in water.

Partition coefficient (n-octanol/water) Not available

Auto-ignition temperature Not available

Decomposition temperature Not available

Viscosity Not available

Other information

Density1.06 g/cm³FlammabilityNot applicableSpecific gravity1.05 to 1.06Surface tensionNot available



10. Stability and Reactivity

Reactivity 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.

Chemical stability 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.

Possibility of hazardous

reactions

Contact with acids, organic materials, reducing agents and oxidizing agents

will release toxic gases of chlorine and/or chlorine dioxide.

Conditions to Avoid 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.

Incompatible materials Combustible material. Acids. Organic compounds. Oxidizing agents. Metals.

Sulfur and Sulfur-containing materials. Ethylene glycol. Ammonia. Amines.

Phosphorus. Reducing agents.

Hazardous

decomposition products

In the event of fire, the following can be released: Chlorine, Chlorine

Dioxide.

11.Toxicological Information

Information on likely routes of exposure

Inhalation Harmful if inhaled.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage/irritation.

Ingestion May be 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,

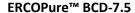
and blurred vision.

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 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 discolouration of the skin and mucous membranes). Will irritate and may cause corrosion of the gastrointestinal tract.

Information on toxicological effects

Acute	toxicit	ty
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Product	Species	Test Results
Sodium Chlorite Solution 7.5%		
Acute		
Inhalation		
LC ₅₀	Rat	3.07 mg/L (Calculated ATE at 7.5%)
Oral		
LD ₅₀	Rat	2200 mg/kg (Calculated ATE at 7.5%)
Product	Test	Test Results
Sodium Chlorite Solution 7.5%		
Dermal	OECD Guideline 435,	50.5 min (Average breakthrough
	"In Vitro Membrane	time calculated at 7.5%)
	Barrier Test Method for Skin Corrosion"	
Components	Species	Test Results
Sodium Chlorite (CAS 7758-19-2)		
Acute		
Inhalation		
LC ₅₀	Rat	0.23 mg/L (Mist)
Oral		
LD ₅₀	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.

Components Species Test Results

Sodium Chlorite (CAS 7758-19-2)

Aquatic Acute

Page **10** of **14** Issue Date: 3/31/2022





Algae EC₅₀ Green algae (Selenastrum capricornutum) 1.2 mg/l

Crustacea EC₅₀ Water flea (Daphnia) 0.025 mg/l

Fish LC₅₀ Sheepshead minnow (Cyprinodon 110 mg/l

variegatus)

Chronic

Algae EC₅₀ Green algae (Selenastrum capricornutum) 1 mg/l

Persistence and degradability

Biodegradation is not applicable to inorganic substances.

Bio accumulative

potential

The product itself has not been tested.

Mobility in soil 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.

Other adverse effects 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

Disposal instructionsCollect 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.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the

producer and the waste disposal company.

Waste from residues / unused products

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).

recycling or disposal. Since emptied containers may retain product

residue, follow label warnings even after container is emptied.

Page **11** of **14** Issue Date: 3/31/2022



14. Transport Information

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Regulatory Information	UN Number	Proper Shipping Name	Classes	Packing Group	Label	Additional Information
TDG Classification	UN1908	CHLORITE SOLUTION	8	III	CONTROL OF THE PARTY OF THE PAR	Marine Pollutant Marine Pollutant Explosive Limit and Limited Quantity Index 5 Passenger Carrying Road or Rail Index
IMDG Class	UN1908	CHLORITE SOLUTION	8	III	*	Marine Pollutant Marine Pollutant Emergency Schedules (EmS) F-A, S-B
IATA-DGR Class	UN1908	Chlorite Solution	8	III	*2	Marine Pollutant Marine Pollutant Passenger Aircraft 852: 5 L Cargo Aircraft 856: 60 L

15. Regulatory Information

Country(s) or region Inventory name On inventory (yes/no) *

Australia Australian Inventory of Chemical Yes

Substances (AICS)
Canada Domestic Substances List (DSL) Yes

Page **12** of **14** Issue Date: 3/31/2022



Canada Non-Domestic Substances List	No
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(NDSL)

China Inventory of Existing Chemical Yes

Substances in China (IECSC)

Europe European Inventory of Existing Yes

Commercial Chemical Substances

(EINECS)

European List of Notified Chemical

No

Yes

Substances (ELINCS)

Japan Inventory of Existing and New

Chemical Substances (ENCS)

KoreaExisting Chemicals List (ECL)YesNew ZealandNew Zealand InventoryYesPhilippinesPhilippine Inventory of ChemicalsYes

and Chemical Substances (PICCS)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Yes

Inventory

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

Issue date 3/31/2022

Revision # 3

Revision Indicator Clarified precautionary statements, added FR clothing

precaution and updated address

List of abbreviations ACGIH: American Conference of Governmental Industrial

Hygienists

CAS: Chemical Abstract Services CFR: Code of Federal Regulations DSL: Domestic Substance List

EINECS: European Inventory of Existing Commercial

chemical Substances

EPA: Environmental Protection Agency HSDB® - Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer IATA: International Air Transport Association

IBC: Intermediate Bulk Container

IMDG: International Maritime Dangerous Goods LC: Lethal

Concentration LD: Lethal Dose

NIOSH: National Institute of Occupational Safety and

Health

NTP: National Toxicology Program

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



OECD: Organization for Economic Cooperation and

Development

OSHA: Occupational Safety and Health Administration

PPE: Personal Protective Equipment

RTECS: Registry of Toxic Effects of Chemical Substances

SDS: Safety Data Sheet

TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Information

System

References

Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2014 (Chempendium, RTECs, HSDB, INCHEM).

European Chemicals Agency, Classification Legislation, 2014.

Material Safety Data Sheet from manufacturer. OECD - The Global Portal to Information on Chemical

Substances - eChemPortal, 2014.

Disclaimer

Information presented in this SDS is furnished in accordance with the Workplace Hazardous Materials Information System (WHMIS).

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