

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

Product identifier Endimal™ DW

Other means of identification None

Recommended use Water treatment chemicals. Odor Neutralizing agent. Oxidizing

agent.

Recommended restrictions None known

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name International Dioxcide, Inc.

Address 40 Whitecap Drive

North Kingstown, RI 02852 United States of America

Telephone Information #: (800) 477-6071

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 4

Acute toxicity, inhalation Category 3
Serious eye damage Category 1
Specific target organ toxicity, repeated Category 2

exposure (blood, kidneys, liver, spleen)

Skin corrosive Category 1B

Percentage of the mixture consisting of ingredient(s) of unknown toxicity:

2.4%

Environmental hazards Not currently regulated by OSHA, refer to Section 12 for additional

information.

OSHA defined hazards This material is considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200).

Label elements











Signal word Danger

Hazard statement 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.

Precautionary statement

Prevention 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 area.

Response IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. 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 skin irritation occurs: Get medical attention.

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

Immediately call a POISON CENTER or doctor.

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 attention.

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

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal Dispose of contents and container in accordance with all local, regional,

national and 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

Do not taste or swallow. Wash thoroughly after handling. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Corrosive to

digestive tract [severe].



3. Composition/Information on Ingredients

Chemical name	Common name and synonyms	CAS number	Conc. % By Weight
Sodium chlorite	None	7758-19-2	25 – 40% w/w
Sodium hydroxide	None	1310-73-2	≤5% w/w
Chemical name of imp	None		

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

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.

Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to a victim Ingestion

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.

Notes to physician: Treat symptomatically. No specific treatment.

General information



Protection of first aiders: If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

5. Fire-Fighting Measures

Suitable extinguishing media

Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

In a fire or if heated, a pressure increase will occur and the container may burst. Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. Water runoff from firefighting may be corrosive.

Special protective equipment and precautions for firefighters

Fire-fighters should wear appropriate protective equipment and selfcontained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Specific methods Use st

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

General fire hazards

No specific data

Hazardous combustion products

Decomposition products may include the following materials: halogenated compounds, metal oxide/oxides.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Methods and materials for containment and cleaning up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth or diatomaceous earth and place in container for



disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor.

Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

7. Handling and Storage

Precautions for safe handling

Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not reuse container.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits So

Sodium chlorite
None
Sodium hydroxide
ACGIH TLV (United States, 3/2016).
C: 2 mg/m³
OSHA PEL (United States, 6/2016).
TWA: 2 mg/m³ 8 hours.

Biological limit values

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



Appropriate engineering controls

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical splash goggles and/or face shield. If inhalation hazards exist,

a full-face respirator may be required instead. If contact with product

is possible, wear safety glasses with side shields.

Skin protection

Hand protection Permeation resistant gloves.

Other Permeation resistant clothing and foot protection.

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 Respirator selection must be based on known or anticipated exposure

levels, the hazards of the product and the safe working limits of the selected respirator. A NIOSH approved air purifying respirator with organic vapor cartridges and particulate prefilter can be used to

minimize exposure.

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 Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end

products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety

showers are close to the workstation location.

9. Physical and Chemical Properties

Appearance

Physical state Liquid Form Liquid

Color Yellow (light)
Odor Chlorine (slight)
Odor threshold Not available
Molecular formula Not available
Molecular weight Not available



pH >12

Melting point/Freezing Point

Not available

Initial boiling point and boiling range

106 °C (1013 hPa)

Flash point Closed cup: Not applicable.

Evaporation rateFlammability (solid, gas)
Not available

Upper/lower flammability or explosive limits

Flammability limit – lower (%)
Flammability limit – upper (%)
Explosive limit – lower (%)
Explosive limit – upper (%)
Not available
Not available
Vapor pressure
Vapor density
Relative density
Not available
Not available
Not available

Solubility (ies)

Solubility (water)

Partition coefficient (n-octanol/water)

Auto-ignition temperature

Decomposition temperature

Viscosity

Not available

Not available

Not available

Other information

Density1.23 to 1.28 g/cm³FlammabilityNot availableSpecific gravity1.23 to 1.28Surface tensionNot available

10. Stability and Reactivity

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

ingredients.

Chemical stability The product is stable.

Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not

occur.

Conditions to Avoid No specific data.

Incompatible materials Reactive or incompatible with the following materials: acids

Hazardous Under normal conditions of storage and use, hazardous decomposition

decomposition products products should not be produced

11. Toxicological Information

Information on likely routes of exposure Inhalation Toxic if inhaled.

Skin contact Causes severe skin burns.



Eye contact Causes serious eye damage/irritation.

Ingestion 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 Chlori	te Solution 40%		
	Acute		
	Inhalation		
	LC ₅₀	Rat	0.58 mg/L (Calculated ATE at 40%)
	Oral		
	LD ₅₀	Rat	413 mg/kg (Calculated ATE at 40%)
Product		Test	Test Results
Sodium Chlori	te Solution 37%		
	Dermal	OECD Guideline 435, "In	17 min (Average breakthrough time
		Vitro Membrane Barrier Test	calculated at 37%)
		Method for Skin Corrosion"	
Components		Species	Test Results



Sodium Chlorite (CAS 7758-19-2)

Acute

LC₅₀ Rat 0.23 mg/L (Mist)

Oral

 LD_{50} Rat 165 mg/kg

Skin corrosion/irritation Can cause severe skin burns.

Serious eye damage/eye irritation Respiratory or skin sensitization

Respiratory sensitization

iratory or skin sensitization

Skin sensitizer Not sensitizing

Germ cell mutagenicityNot 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

Can cause serious eye damage/irritation.

Not expected to be a respiratory sensitizer.

carcinogenicity to humans.

Reproductive toxicityNot 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

Product	Species	Test	Test Results
Sodium chlorite			
Acute			
EC50	Algae – Scenedesmus	N/A	1 mg/l Fresh water
	capricornutum		(over 96 hours)

^{*} Estimates for product may be based on additional component data not shown.





EC50	Crustaceans - Mysidopsis bahia	N/A	0.65 mg/l Marine water (over 96 hours)
EC50	Daphnia - Daphnia magna	OECD 202 Daphnia sp. Acute Immobilization Test	<1 mg/l Fresh water (over 48 hours)
LC50	Fish - Oncorhynchus mykiss	N/A	106 mg/l Fresh water (over 96 hours)

Product	Species	Test	Test Results
Sodium chlorite			
Chronic			
	Algae -	N/A	0.62 mg/l Fresh water
	Scenedesmus capricornutum		(over 96 hours)
Product	Species	Test	Test Results
Sodium hydroxide			
Acute			
EC50	Daphnia - Daphnia	N/A	>100 mg/l over 48
	Magna		hours
LC50	Fish - Trout	N/A	45.4 mg/l over 96
			hours
Persistence and degr	radability Not available		

Bioaccumulative potential Sodium chlorite: LogPow <-2.7, potential: low

Mobility in soil Not available

Other adverse effects No known significant effects or critical hazards.

13.Disposal Considerations

Disposal instructions

The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

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Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code When discarded in its purchased, undiluted form, this product meets the

pH 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)

Waste from residues / unused products

Not available

Contaminated packaging

Not available

14.Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN3266	Corrosive liquid, basic, inorganic, n.o.s. (SODIUM CHLORITE, SODIUM HYDROXIDE)	8	II	***************************************	Marine Pollutant Marine Pollutant 386, B2, IB2, T11, TP2, TP27
IMDG Class	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM CHLORITE, SODIUM HYDROXIDE)	8	II	***************************************	Marine Pollutant Marine Pollutant Emergency Schedules (EmS) F-A, S-B
IATA-DGR Class	UN3266	Corrosive liquid, basic, inorganic, n.o.s. (SODIUM CHLORITE, SODIUM HYDROXIDE)	8	II	12	Marine Pollutant Marine Pollutant Passenger aircraft 851: 1 L Cargo aircraft 855: 30 L

*PG: Packing Group **RQ**: 41667 lbs



15. Regulatory Information

SARA 311/312 Immediate (acute) health hazard Delayed (chronic) health hazard

SARA Title III Section 302 Extremely

Hazardous Substances

SARA Title III Section 313 Toxic

Chemicals

US EPA CERCLA Hazardous Substances

(40 CFR 302.4)

None

None

Sodium hydroxide (CAS 1310-73-2), RQ: 1000 lbs. (454

kg).

State Regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state

Ingredient Name	CAS Number	State Code	Concentration (%)
Sodium chlorite	7758-19-2	MA - S, NJ - HS, PA - RTK HS	25-40
Sodium hydroxide	1310-73-2	MA - S, NJ - HS, PA - RTK HS	≤5
Water	7732-18-5		50-75

Massachusetts Substances: MA - S

Massachusetts Extraordinary Hazardous Substances: MA - Extra HS

New Jersey Hazardous Substances: NJ - HS

Pennsylvania RTK Hazardous Substances: PA - RTK HS Pennsylvania Special Hazardous Substances: PA - Special HS

California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

U.S. Toxic Substances Control Act Listed on the TSCA Inventory.

16.Other Information

Issue date 4/1/2022

Revision # 5

Revision Indicator Clarified precautionary statements, added FR clothing precaution. **List of abbreviations** 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

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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.

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