# 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™ L** |
| **Other means of identification** | Material number: 57956511 |
| **Recommended use** | Odor Neutralizing agent. Oxidizing agent. |
| **Recommended restrictions** | None known |

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

| | |
|---|---|
| **Company name** | International Dioxcide, Inc. |
| **Address** | 40 Whitecap Drive<br>North Kingstown, RI 02852<br>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)<br>International: (703) 527 3887 |
| **Supplier** | Refer to Manufacturer |

## 2. Hazard(s) Identification

**Physical hazards** None

**Health hazards**

| | |
|---|---|
| Acute toxicity, oral | Category 3 |
| Serious eye damage | Category 1 |
| Specific target organ toxicity, single exposure (respiratory tract irritation) | Category 3 |
| Specific target organ toxicity, repeated exposure (spleen) | Category 2 |

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 8.1%

**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**
Toxic if swallowed.
Causes serious eye damage.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure (spleen).

**Precautionary statement**

**Prevention** Wear eye/face protection. Use only in a well-ventilated area. Do not breathe mists or vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

**Response** **IF SWALLOWED:** Immediately call a POISON CENTER or doctor. Rinse mouth.
**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. Get medical attention immediately.
**IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
Get medical advice or attention if you feel unwell.

**Storage** 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)** Causes severe digestive tract burns. Causes respiratory tract burns.
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 hydroxide | None | 1310-73-2 | ≤5% w/w |
| Sodium chlorite | None | 7758-19-2 | ≤5% w/w |

**Chemical name of impurities, stabilizing solvents and/or additives:** 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** Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregular or respiratory arrest occurs, provide artificial respiration, or oxygen by a trained professional, using a pocket type respirator.

**Skin Contact** In case of contact, flush skin with plenty of water for at least 30 minutes. Get medical attention immediately. Immediately remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Eye Contact** Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. In case of contact with eyes, flush eyes with plenty of water for at least 30 minutes. Chemical burns must be treated promptly by a physician.

**Ingestion** Get medical attention immediately. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Most important symptoms/effects, acute and delayed** Causes serious eye damage. Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Corrosive to the skin with symptoms of reddening, itching, swelling, burning and possible permanent damage. Toxic if swallowed. Severely corrosive to the digestive tract. Causes severe burns. May cause burns to mouth, throat and stomach. Corrosive with symptoms of coughing, burning, ulceration, and pain. Abdominal pain, nausea, vomiting, diarrhea. In extreme case it may cause serious damage to health. May cause damage to organs through prolonged or repeated exposure.

**Indication of immediate medical attention and special treatment needed** Not available

| | |
|---|---|
| **General information** | Note to physician: Treat symptomatically. No specific treatment.<br>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 self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.<br>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** | |
| **General fire hazards** | |
| **Hazardous combustion products** | Decomposition products may include the following materials: carbon dioxide, carbon monoxide 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, vermiculite 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. 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. 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**

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.<br>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 considerations** | Wash hands, forearms and face thoroughly after handling chemical 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** | Pale yellow |
| **Odor** | Not available |
| **Odor threshold** | Not available |
| **Molecular formula** | Not available |

| | |
|---|---|
| **Molecular weight** | Not available |
| **pH** | Not available |
| **Melting point/Freezing Point** | -12°C (10.4°F) |
| **Initial boiling point and boiling range** | 104 °C (1013 hPa) |
| **Flash point** | Closed cup: Not applicable. |
| **Evaporation rate** | Not available |
| **Flammability (solid, gas)** | Not available |
| **Upper/lower flammability or explosive limits** | |
| **Flammability limit – lower (%)** | Not available |
| **Flammability limit – upper (%)** | Not available |
| **Explosive limit – lower (%)** | Not available |
| **Explosive limit – upper (%)** | Not available |
| **Vapor pressure** | 22.67 hPa (20℃) |
| **Vapor density** | Not available |
| **Relative density** | Not available |
| **Solubility (ies)** | |
| **Solubility (water)** | Not available |
| **Partition coefficient (n-octanol/water)** | Not available |
| **Auto-ignition temperature** | Not available |
| **Decomposition temperature** | Not available |
| **Viscosity** | Not available |
| **Other information** | |
| **Density** | 1.06 to 1.11 g/cm³ |
| **Flammability** | Not available |
| **Specific gravity** | 1.06 to 1.11 |
| **Surface tension** | Not 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** | No specific data. |
| **Hazardous decomposition products** | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## 11. Toxicological Information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | May cause respiratory irritation. |
| **Skin contact** | No known significant effects or critical hazards. |

**Eye contact** Causes serious eye damage.

**Ingestion** Toxic if swallowed. Severely corrosive to the digestive tract. Causes severe burns. May cause burns to mouth, throat and stomach.

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

**Effects of short-term (acute) exposure** Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage. May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Corrosive with symptoms of coughing, burning, ulceration, and pain. May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest. Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage. Corrosive with symptoms of coughing, burning, ulceration, and pain. Abdominal pain, nausea, vomiting, diarrhea. In extreme case it may cause serious damage to health. May cause damage to organs through prolonged or repeated exposure.

**Effects of long-term (chronic) exposure** Not available.

**Information on toxicological effects**

**Acute toxicity**

| Product | | Species | Test Results |
|---|---|---|---|
| Endimal™ L | | | |
| | **Acute** | | |
| | LD50 Oral | Rat | 284 mg/kg * Test results for a product at higher concentration |
| | LD50 Dermal | Rat | >2000 mg/kg * Test results for a product at higher concentration |

| Components | | Species | Test Results |
|---|---|---|---|
| Sodium chlorite | | | |
| | **Acute** | | |
| | LC50 Inhalation, Dusts and Mists | Rat | 230 mg/m³ over 4 hours |

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

**Skin corrosion/irritation** Non-irritating
* Test results for a product at higher concentration

**Serious eye damage/eye irritation** Severe irritant
*Test results for a product at higher concentration

**Respiratory or skin sensitization**

**Respiratory sensitization** Not sensitizing

| | |
|---|---|
| **Skin sensitizer** | Not sensitizing |
| **Germ cell mutagenicity** | No known significant effects or critical hazards. |
| **Carcinogenicity** | No known significant effects or critical hazards. |
| **IARC Monographs. Overall Evaluation of Carcinogenicity** | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |
| **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)** | |
| **Reproductive toxicity** | No known significant effects or critical hazards. |
| **Specific target organ toxicity - single exposure** | Respiratory tract irritation |
| **Specific target organ toxicity - repeated exposure** | Spleen |
| **Aspiration toxicity** | Not expected to be an aspiration hazard. |
| **Chronic effects** | Not available |

## 12. Ecological Information

**Ecotoxicity**

| Product | Species | Test | Test Results |
|---|---|---|---|
| Sodium chlorite | | | |
| **Acute** | | | |
| EC50 | Algae – Scenedesmus capricornutum | N/A | 1 mg/l Fresh water (over 96 hours) |
| 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) |
| **Chronic** | | | |
| NOEC | Algae - Scenedesmus capricornutum | N/A | 0.62 mg/l Fresh water (over 96 hours) |

| Product | Species | Test | Test Results |
|---|---|---|---|

Sodium hydroxide

**Acute**

| | | | |
|---|---|---|---|
| EC50 | Daphnia - Daphnia Magna | N/A | >100 mg/l over 48 hours |
| LC50 | Fish - Trout | N/A | 45.4 mg/l over 96 hours |

**Persistence and degradability** 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.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** 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)

**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 |  | 386, B2, IB2, T11, TP2, TP27 |
| **IMDG Class** | UN3266 | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM CHLORITE, SODIUM HYDROXIDE) | 8 | II |  | **Emergency Schedules (EmS)** F-A, S-B |
| **IATA-DGR Class** | UN3266 | Corrosive liquid, basic, inorganic, n.o.s. (SODIUM CHLORITE, SODIUM HYDROXIDE) | 8 | II |  | **Passenger aircraft** 851: 1 L<br><br>**Cargo aircraft** 855: 30 L |

*PG: Packing Group

**RQ**: 25000 lbs

## 15.Regulatory Information

| | |
|---|---|
| **SARA 311/312** | Immediate (acute) health hazard<br>Delayed (chronic) health hazard |
| **SARA Title III Section 302 Extremely Hazardous Substances** | None |
| **SARA Title III Section 313 Toxic Chemicals** | None |
| **US EPA CERCLA Hazardous Substances (40 CFR 302.4)** | 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 | ≤5 |
| Sodium hydroxide | 1310-73-2 | MA - S, NJ - HS, PA - RTK HS | ≤5 |
| Water | 7732-18-5 | | 75 - 90 |
| α-Cyclodextrin | 10016-20-3 | | ≤5 |

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 #** 6
**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
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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