



SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION:

Product Name: Sodium Hypochlorite Solution **Trade Name: Flochem-12B**

WHMIS CLASS: C, E, D-1B, D-2B **Effective Date: September 14, 2022**

Product Use: Disinfection, odour control, laundry, water, sewage and industrial waste treatment, hard surface cleaner and biocide.

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| <p>Supplier Name & Address: FLOCHEM LTD. 6986 Wellington Rd. 124, Guelph, ON, Canada N1H 6J4</p> | <p>Emergency Phone Number: 1-877-378-7745</p> |
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SECTION 2 - HAZARDS IDENTIFICATION:



SIGNAL WORD.....
 GHS CLASSIFICATION:.....

HAZARD STATEMENTS.....

PRECAUTIONARY STATEMENTS.....

DANGER.
 Serious Eye Damage/ Eye Irritation Category 1. Skin corrosion Category 1. Specific Target Organ Toxicity Single Category 3. Respiratory tract irritation Category 1. Acute aquatic toxicity Category 1. Chronic aquatic toxicity Category 1.
 H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray. P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310 Immediately call a POISON CENTER or doctor/physician. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/container to an approved waste disposal plant.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS:

| <u>Ingredients:</u> | <u>CAS#</u> | <u>Wt%</u> |
|---------------------|-------------|------------|
| Sodium Hypochlorite | 7681-52-9 | 7-13 |
| Sodium Hydroxide | 1310-73-2 | 0.2- 5 |
| Water | 7732-18-5 | Balance |

SECTION 4 - FIRST AID MEASURES:

Route of Exposure: Eye, Skin, Ingestion and Inhalation.

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| INHALATION..... | Remove victim to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get immediate medical attention. Call a poison center or physician. |
| EYE CONTACT..... | Immediately hold eyelids open and flush with water for at least 15 minutes. Check for and remove any contact lenses if easy to do. Consult a physician. |
| SKIN CONTACT..... | Immediately flush skin with plenty of water for 15 minutes. Remove contaminated clothing and wash before reuse. Consult a physician. |
| INGESTION..... | Call immediately a poison center or a doctor. Do not induce vomiting or give anything by mouth to an unconscious person. Rinse out mouth with water. |
| ACUTE SYMPTOMS/EFFECTS | Eyes:..... Causes eye burns. Causes eye irritation. Ingestion:..... May cause severe irritation damage in the mouth, throat and stomach. Symptoms may include abdominal pain, vomiting, burns, perforations, bleeding and eventually death. Skin:..... Causes severe burns. Causes skin irritation. Direct skin contact may cause skin burns, deep ulcerations and possibly permanent scarring. Inhalation:..... Inhalation of high concentrations of fumes or mists may cause severe irritation and corrosive damage to the nose, throat and upper respiratory tract. |
| DELAYED SYMPTOMS/EFFECTS..... | Prolonged or repeated contact may cause drying, cracking and de fatting of the skin. |
| GENERAL ADVICE..... | Consult a physician. Show this safety data sheet to the doctor. |

SECTION 5 - FIRE FIGHTING MEASURES:

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| CONDITIONS OF FLAMMABILITY..... | Non-flammable substance. Non-combustible substance. |
| SUITABLE EXTINGUISHING MEDIA..... | Use fire-extinguishing media appropriate for surrounding materials. Use Water spray, Alcohol-resistant foam, Dry chemical or Carbon dioxide. |
| UNSUITABLE EXTINGUISHING MEDIA..... | Do not use dry chemical extinguishing agents that contain ammonium compounds. |
| SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS | Firefighter should wear proper protective equipment and self-contained breathing Apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Use water to cool fire exposed containers. |
| HAZARDOUS COMBUSTION PRODUCTS. | May include and are not limited to: Chlorine; Hydrogen chloride gas; Oxygen; Sodium dioxides. |

SECTION 6 - ACCIDENTAL RELEASE MEASURES:

PERSONNEL PRECAUTIONS: Restrict access to area until completion of clean up. Evacuate personnel to safe areas. Ensure clean-up is conducted by trained personnel only. Do not touch and walk through spilled material. All persons dealing with clean up should wear the appropriate protective equipment including self-contained breathing apparatus. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personnel protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

ENVIRONMENTAL PRECAUTIONS: Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply. Prevent further leakage or spillage if safe to do.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING Contain and absorb spilled liquid with noncombustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal. Flush with water. Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product. Notify the appropriate authorities as required.

SECTION 7 - HANDLING & STORAGE:

HANDLING PROCEDURES..... Use good industrial hygiene practices in handling this material. Do not eat, drink, or smoke when using this product. Use in well ventilated areas. Do not get in eyes, on skin or on clothing. Avoid inhalation of mists/vapours/fumes. Wash thoroughly after handling. Keep container tightly closed.

STORAGE NEEDS..... Keep out of reach of children. Protect from sunlight. Keep container tightly closed. Store in a cool, dry and well ventilated area. Do not store near acids.

STORAGE TEMPERATURE..... <30°C.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION:

| INGREDIENTS | ACGIH TLV | | OSHA PEL | | NIOSH |
|---------------------|-----------------|------------------|----------|-----------------|-----------------|
| | TWA | STEL | PEL | STEL | REL |
| Sodium Hypochlorite | Not established | Ceiling: 2 mg/m3 | 2 mg/m3 | Not established | Not established |
| Sodium Hydroxide | Not established | 2 mg/m3 | 2 mg/m3 | Not established | Not established |

ACGIH TLV:..... American Conference of Governmental Industrial Hygienists - Threshold Limit Value.

OSHA PEL:..... Occupational Safety and Health Administration - Permissible Exposure Limits.

NIOSH IDLH:..... Immediately Dangerous to Life or Health.

ENGINEERING CONTROLS..... Use under well-ventilated conditions or with respiratory protection.

GENERAL HYGIENE

CONSIDERATIONS:..... Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Remove soiled clothing and wash it thoroughly before reuse. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Do not eat, drink, smoke or use cosmetics while working with this product.

PERSONAL PROTECTIVE EQUIPMENT:

As required by employer. Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Eye/Face protection:..... Wear safety goggles with side shields and/or face shield.

Hand protection:..... Wear protective gloves. Gloves must be inspected prior to use.

Respiratory protection:..... Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s). Use a full face respirator with multi-purpose combination or wear self-contained breathing apparatus.

SECTION 9 - PHYSICAL & CHEMICAL PROPERTIES:

Boiling Point: Decomposes on heating
Vapour Pressure (mm Hg): 22@20(°C)
Vapour Density (Air =1): Not Available
Percent Volatile (Wt %): 80
Physical State: Liquid
Odour: Chlorine like, pungent

Specific Gravity (H2O=1): 1.076 – 1.168
Freezing Point(°C): -20°C
Appearance: Greenish-yellow solution
pH: 12-14
Solubility in Water: Miscible
Viscosity @ 20°C: Water thin

SECTION 10 - STABILITY & REACTIVITY:

CHEMICAL STABILITY..... Stable under the recommended storage and handling conditions prescribed.

REACTIVITY..... React vigorously with acids. Reacts with amines and ammonia to form explosively unstable compounds. May develop chlorine if mixed with acidic solutions. Contact with some reactive metals may produce flammable hydrogen gas. Corrosive to metals

HAZARDOUS POLYMERIZATION..... Hazardous polymerization cannot occur.
 CONDITIONS TO AVOID..... Avoid heat and open flame. Exposure to sunlight. Do not mix with other chemicals.
 INCOMPATIBILITY..... Avoid contact with the following materials: Urea, Ammonia, Amides, Amines, Nitrogen containing compounds, Combustible materials, Organic materials, Metals, Reducing materials, Hydrocarbons materials, Alcohols, Ether. Contact with Magnesium, galvanized Zinc, Tin, Chromium, Brass and Bronze generates explosive Hydrogen.
 HAZARDOUS PRODUCTS OF DECOMPOSITION May include and are not limited to: Hydrogen chloride, Chlorine gas, Sodium dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION:

| INGREDIENTS | LC50 | LD50 |
|---------------------------------|---|---|
| Sodium Hypochlorite Inhalation, | Rat: > 10.5 mg/kg | Oral Rat: 8200 mg/kg; Oral Mice: 5800 mg/kg; Dermal Rat: >2000 mg/kg; Dermal Rabbit: >10000 mg/kg |
| Sodium Hydroxide | Not established | Oral Rat: 2400mg/kg Dermal Rabbit: >2000mg/kg |
| ROUTE OF EXPOSURE..... | Eyes, skin, respiratory system and digestive system. | |
| POTENTIAL EFFECT ON HUMANS | | |
| Eye contact..... | Causes eye burns. Causes severe eye damage. | |
| Skin contact..... | Causes skin burns. Causes skin irritation. | |
| Inhalation..... | Harmful if inhaled. May cause respiratory tract irritation or chemical burns. | |
| Ingestion..... | Harmful if swallowed. May cause severe irritation and corrosive damage to mouth, throat and stomach. | |
| CHRONIC EFFECTS ON HUMANS..... | Safe handling of this material on a long term basis should emphasize the prevention of all contact with this material to avoid any effects from repetitive acute exposures. | |
| SENSITIZATION..... | No information available. | |

TARGET ORGANS..... Contains material which may cause damage to the following organs: upper respiratory tract, skin, eye, lens of cornea and stomach.
 CARCINOGENICITY..... No evidence of carcinogenic effects.
 Carcinogen classification code
 ACGIH..... A4 - Not classifiable as a human carcinogen (Sodium Hypochlorite). No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
 IARC..... 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium Hypochlorite).
 International Agency for Research on Cancer
 MUTAGENICITY..... No information available.
 REPRODUCTIVE EFFECTS..... No information available.
 TERATOGENICITY..... No information available.
 SPECIFIC TARGET ORGANS TOXICITY - . No information available.
 Single exposure
 SPECIFIC TARGET ORGANS TOXICITY - . No information available.
 Repeated exposure
 ASPIRATION HAZARD..... No information available.

SECTION 12 - ECOLOGICAL INFORMATION:

ECOTOXICITY DATA, Sodium Hypochlorite: Acute 96Hrs LC50 Rainbow trout: 0.030 - 0.070 mg/L.
 Acute 48Hrs LC50 Daphnia magna: 0.032 - 0.036 mg/L.

ECOTOXICITY DATA, Sodium Hydroxide:..... Acute 96Hrs LC50 fish Guppy *Poecilia reticulata*:196 mg/L
 Chronic 96Hrs NOEC fish Guppy *Poecilia reticulata*:56 mg/L
 MOBILITY IN SOIL..... No information available.
 BIODEGRADABILITY..... No information available.
 BIOACCUMULATION..... No information available.
 OTHER ADVERSE EFFECTS..... Very toxic to aquatic life with long lasting effects.

SECTION 13- DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL..... The disposal of the product must be made in an approved sanitary landfill or in a foundry in accordance with municipal, provincial and/or federal regulations.

SECTION 14 - TRANSPORT INFORMATION:

Proper Shipping Name: Hypochlorite Solution
 Transport Canada Classification, Class 8, UN1791, Packaging Group II

SECTION 15 - REGULATORY INFORMATION:

- On the DSL and TSCA Inventory.
- WHMIS CLASSIFICATION..... This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and this document contains all the information required by the Controlled Products Regulations. Class E: Corrosive Material. Class C: Oxidizing Material. Class D-1B: Materials Causing Immediate/Serious Effects - Toxic Material. Class D-2B: Toxic material causing other toxic effects.

SECTION 16 - OTHER INFORMATION:

Disclaimer:

The information contained herein is based on data considered to the best of our knowledge to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof.

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