SAFETY DATA SHEET: SODIUM HYPOCHLORITE, 12.5%

1. IDENTIFICATION

Product Name: SODIUM HYPOCHLORITE, 12.5%

Synonyms: Liquid chlorine; Liquid bleach

Formula and Formula Weight: NaOCl  74.44

Integra numbers beginning with: S437.50

Recommended Use: Commercial/industrial use

Restrictions on Use: No information available

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Phone: 253-479-7000

2. HAZARDS IDENTIFICATION

OSHA Classification:

Skin Corrosion/Irritation: 1B Causes severe skin burns and eye damage.

Eye Damage/Irritation: 1 Causes serious eye damage.

Signal Word: Danger

Precautionary Statements

Prevention:
Do not breathe mists.
Wash thoroughly after handling.
Wear protective gloves, protective clothing, eye protection, face protection.

Response:
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water, shower.
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.
Immediately call a poison center or doctor.
Specific treatment (see first aid section on this label)
Wash contaminated clothing before reuse.

Storage:
Store locked up.

Disposal:
Dispose of contents, container in accordance with all governmental regulations.

Hazard Not Otherwise Classified: Contact with acids liberates toxic gas

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
<td>07732-18-5</td>
<td>87.5</td>
</tr>
<tr>
<td>Sodium hypochlorite</td>
<td>Liquid chlorine; Liquid bleach</td>
<td>07681-52-9</td>
<td>12.5</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Eye Contact: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: Do not induce vomiting. If victim is conscious, rinse mouth, give water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Additional notes: Symptoms and effects include severe irritation or burns to skin, eyes, respiratory tract, mouth, throat, gastrointestinal tract; nausea, vomiting; coughing, difficulty in breathing, chest pains, pulmonary edema. Note to physician: If ingested, the physician should consider oral administration of a sodium thiosulfate solution. Do not administer neutralizing substances as the resulting exothermic reaction could cause further damage.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Use extinguishing media appropriate for surrounding fire.
**6. ACCIDENTAL RELEASE MEASURES**

Spill Procedures: Prevent spread of spill. Wear full protective equipment. Use water spray to reduce vapors. Absorb with sand or inert material. Sweep or scoop into a disposal container. Flush spill area with water. Do not allow material to release to the environment.

**7. HANDLING AND STORAGE**

Incompatible Materials: Incompatible with strong acids. Iron, copper, ammonium compounds, organics, oxidizers, amines, methanol, formic acid.

Storage and Handling: Store locked up in a cool, dry, well-ventilated corrosive materials storage area away from incompatible materials. Keep containers tightly closed and protect them from physical damage. Minimize exposure to air and light. High temperatures and exposure to sunlight greatly speed decomposition. Low temperatures (below 60°F) will help extend the shelf life. Do not freeze.

Do not breathe mists.

Wash thoroughly after handling.

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

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

OSHA & ACGIH Exposure Limits:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None identified</td>
</tr>
<tr>
<td>Sodium hypochlorite</td>
<td>None identified</td>
</tr>
</tbody>
</table>

Engineering Controls: Use adequate general or local exhaust ventilation to keep fume and/or dust levels as low as possible.

Respiratory Protection: If vapors, mists or aerosols are generated a NIOSH approved respirator equipped with chemical cartridges for protection against chlorine gas is recommended.

Skin/Eye Protective Equipment: Safety goggles, face shield, chemical-resistant gloves and protective clothing appropriate for the risk of exposure. Neoprene gloves are recommended.

Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers. Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Greenish-yellow liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>Strong odor of chlorine</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>Not available</td>
</tr>
<tr>
<td>pH:</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting/Freezing Point:</td>
<td>Not available</td>
</tr>
<tr>
<td>Initial Boiling Point and Boiling Range:</td>
<td>Decomposes</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammable or Explosive Limits (% by volume in air):</td>
<td>Upper: Not available Lower: Not available</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density:</td>
<td>1.26 Water=1</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Miscible with water</td>
</tr>
<tr>
<td>Partition Coefficient: n-octanol/water:</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-Ignition Temperature:</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**10. STABILITY AND REACTIVITY**

Reactivity: No information available

Stability: Unstable

Possibility of Hazardous Reactions: Hazardous polymerization will not occur

Conditions to Avoid: Excessive heat and exposure to light.

Incompatibles: Incompatible with strong acids. Iron, copper, ammonium compounds, organics, oxidizers, amines, methanol, formic acid.

Decomposition Products: Chlorine gas, sodium oxides

**11. TOXICOLOGICAL INFORMATION**

Effects of Over Exposure:

Inhalation: Harmful if inhaled. Irritating to the nose and throat, severely irritating to the respiratory system. Overexposure may cause coughing, difficulty in breathing, chest pains and pulmonary edema.
Skin Contact: Contact may cause severe irritation or burns.

Eye Contact: Contact may burn or damage the eyes.

Ingestion: Harmful if swallowed. Ingestion may cause nausea, vomiting and gastrointestinal irritation and burns to the mouth and throat.

Chronic Effects: Prolonged or repeated skin contact may produce severe irritation or dermatitis. Prolonged or repeated inhalation may damage the respiratory system.

Target Organs: No information available.

Additional Effects: May aggravate pre-existing respiratory conditions, cardiovascular conditions.

Reproductive Effects: No information available

Carcinogenicity: None identified

**Toxicity Data:**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Water</th>
<th>Sodium hypochlorite</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No information available</td>
<td>LD50 (oral, mouse) 5800 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TDLo (intravenous, human) 45 mg/kg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TDLo (oral, human) 1 g/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aquatic Toxicity Data</th>
<th>Terrestrial Toxicity Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Sodium hypochlorite</td>
</tr>
<tr>
<td>No information available</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility in soil: No information available
Other adverse effects: No information available

**13. DISPOSAL CONSIDERATIONS**

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

**14. TRANSPORTATION INFORMATION**

This product is a regulated material for domestic ground transportation, per CFR Title 49.

- UN Number: UN1791
- Proper Shipping Name: Hypochlorite solution
- Packing Group: III
- Hazard Class: 8
- Environmental hazards: No information available
- Special precautions: No information available
- Bulk transport: No information available

**15. REGULATORY INFORMATION**

Sodium hypochlorite is listed in the TSCA inventory.

**16. OTHER INFORMATION**

OSHA SDS #: 26422 rev 101 3/27/2015

NE = Not established, NA = Not applicable or Not available

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***** END OF SDS *****