


<div style="border: 1px solid black; padding: 10px;"> <p>Sodium Hypochlorite</p> <p>Pale-yellow or greenish liquid; chlorine odor. Poison! Highly irritating to eyes/skin/ respiratory tract. Also causes: cough, difficulty breathing, stomatitis, nausea, pulmonary edema; ingestion: circulatory collapse, convulsions. Strong oxidizer!</p>  <p style="text-align: center;">CAS No. 7681-52-9</p> </div>	<p>The Travancore Cochin Chemicals Ltd P.B.No;4,Udyogmandal.P.O Aluva. Ernakulam(dt) Kerala</p> <p>24 Hr. helpline no :04842545011 Emergency contact:7736045000</p>
MSDS- Sodium Hypochlorite	
Document reference no: TCC/HSE/MSDS/ Sodium Hypochlorite Revision:1.2 Rev. date:01.01.2015	
I. PRODUCT IDENTIFICATION	
Chemical Name : Sodium Hypochlorite Trade Name : Industrial bleach, Synonyms : Household bleach, Soda bleach,	
2.Potential Health Effects	
<p>THIS PRODUCT MAY BE : corrosive, toxic and a potential hazard upon contact to skin and eyes.</p> <p>TOXICITY ROUTES OF EXPOSURE : Ingestion, inhalation, skin absorption and contact to eyes.</p> <p>CANCER INFORMATION : Not applicable</p> <p>MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Constant irritant to eyes and throat. Concentration of 3-6 ppm can cause irritation of the nose and mucous membrane of the upper respiratory tract followed by headache and coughing.</p>	
3. Information of ingredients	
Sodium Hypochlorite Chlorine 130 gpl. Caustic 28 gpl Chemical Formula : NaOCl Molecular Weight : 74.45 g/mole	
4.First aid measures	

SKIN : Remove contaminated clothing and immediately wash skin for a minimum of 15 minutes.

EYES : Immediately flush eyes with water for a minimum of 15 minutes. Seek medical attention immediately.

INHALATION : Remove to fresh air. If breathing stops, administer artificial respiration. See a physician.

INGESTION : DO NOT induce vomiting. If person is conscious, give 2 or more glasses of water. If unconscious, never give anything by mouth. DO NOT use baking soda or acidic antidotes. See a physician immediately.

5. Fire and Explosion Data

Flash Point: Non-flammable

Auto ignition Point: Not Applicable

Flammability/Explosive limits: Not Applicable

Fire/Explosion Hazards: Decomposes when heated.

Fire Prevention/Extinguishing Agents: Not Applicable

6. Accidental Release Measures

IN CASE OF SPILL OR RELEASE: Do not allow spilled material to enter sewers or streams. Completely contain spilled material with dikes, sandbags, etc., and prevent run off into the ground or surface waters or sewers. Flush spills with water to dilute bleach as much as possible. Flush residual neutralized waste to the drain with large amount of water. Avoid heat and contamination with acid. Do not use combustible materials such as sawdust to absorb hypochlorite.

7. Handling and Storage

Storage Requirements: Store in vented, closed, clean, noncorrosive containers in a cool dry location, away from direct sunlight and not adjacent to chemicals which may react with the bleach if spillage occurs. If closed containers become heated, the containers should be vented to release decomposition products (mainly oxygen) under normal conditions. FOR SMALL VOLUMES: Store in plastic bottles or jugs. Maybe stored in amber glass bottles. FOR LARGE VOLUMES: Store in HDPE plastic storage tanks.

8. Exposure Controls/Personal Protection

No special ventilation required unless bleach is exposed to decomposition condition; i.e., spills or acidic conditions. Protective Equipment for the eyes, hand and skin: Goggles, disposable latex/ rubber apron, PVC or rubber gloves, rubber boots with pant legs over boots. Precautionary Hygiene/control measures:

Avoid contact with skin, eyes, and clothing.

Do not breathe mist or vapor. Wash thoroughly after handling. Safety showers and eye wash fountains should be available in storage and handling area.

9. Physical and Chemical Properties

STATE : liquid

APPEARANCE : clear yellow solution

ODOR : pungent like chlorine

pH : basic >12; strong alkali

BOILING POINT : decomposes

FLASH POINT ; Not determined

SPECIFIC GRAVITY : 1.120-1.140

VAPOR PRESSURE : Not determined

SOLUBILITY IN : WATER: miscible, ACID : decomposes

10. Stability and Reactivity Data

Stability: Unstable. Stability decreases with concentration, heat, light exposure, and decrease in pH and contamination with heavy metals.

Materials and conditions to avoid (incompatibility) are: Avoid contamination with heavy metals, such as nickel, copper, cobalt, and iron; reducing agents, ether, ammonia and acids, as these materials would hasten decomposition. Avoid heat.

Hazardous decomposition products: Hypochlorous acid (HOCl), chlorine, hydrochloric acid. Other decomposition products, which depend upon pH, temperature and time, are sodium chloride, sodium chlorate and oxygen. Hazardous polymerization will not occur.

11. Toxicological Information

TOXICITY EFFECTS:

Skin Absorption: Irritating effects increase with strength of solution and time exposure. Liquid contact can cause local irritation and burns. Sodium hypochlorite vapors can cause irritation, burning and blisters.

Inhalation: Exposure to humans to 0.5 ppm for 8 hours and 1ppm for 4 hours caused transient decrease in pulmonary capacity , as measured by pulmonary function tests.

Eyes: Contact can cause local irritation. High concentration may cause blindness.

Ingestion: Swallowing of sodium hypochlorite can cause burning and pain in lips, mouth, tongue, throat and stomach. Severe scarring of the throat can occur after

swallowing.
12. Ecological Information
ECOTOXICITY DATA: May pose potential hazard to plant and marine or aquatic life at high concentration. If not diluted, it may seriously affect aquatic life.
13. Disposal Considerations
Waste Disposal Method: Reduce with chemicals listed as neutralizing chemicals. Keep on alkaline side and dilute with large quantities of water. Main end product is salt water (NaCl). Neutralizing Chemicals: Reducing agents such as bisulfites or ferrous salt solutions or urea for low bleach concentration. Heat will be produced. Dispose of in accordance with all Government and Local regulations.
14. Transport Information
Transportation of Dangerous Goods TDG Classification: Do not ship by air. DOT Hazard Classification: Class 8 : Corrosive DOT Shipping Name : Sodium Hydroxide ID: UN1824
15. Regulatory and other Information
Corrosive liquid- Class 8- UN1824
<i>THE INFORMATION CONTAINED HEREIN IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE CORRECT AS OF THE DATE ISSUED</i>