Material Safety Data Sheet

Revision Issued: 5/02/2000

Supercedes: 7/06/99

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Section I - Chemical Product And Company Identification

Product Name: Sodium Hypochlorite

CAS Number: 7681-52-9

HIS MSDS No. CC17000

HERITAGE SYSTEMS, INC. 2471 SOLANO AVE SUITE 141 NAPA, CA. 94558 TEL:707-258-0553 FAX:707-255-3151

INFOTRAC 24 HOUR EMERGENCY NO: 1-800-535-5053

Chemical Name	CAS Number	<u>%</u>	Exposure Limits (TWAs) in Air		
			ACGIH TLV	OSHA PEL	STEL
Sodium Hypochlorite	7681-52-9	5-15	N/A	N/A	N/A

Routes of Exposure: Sodium hypochlorite may affect the body either through ingestion, inhalation, or contact with the eyes and/or skin.

Summary of Acute Health Hazards

Ingestion: May cause irritation of the membranes of the mouth and throat, stomach pain and possible ulceration.

Inhalation: May cause irritation to the mucous membranes of the respiratory tract.

Skin: May cause moderate skin irritation and reddening of the skin.

Eyes: May cause severe irritation.

Carcinogenicity Lists: No NTP: No IARC Monograph: No OSHA Regulated: No Summary of Chronic Health Hazards: Irritating effects increase with strength of solution and time of exposure.

Medical Conditions Generally Aggravated by Exposure: N/A

Section IV - First Aid Measures

Ingestion: Do not give any liquid to an unconscious person. Drink large quantities of gelatin solution or milk. If these are not available, drink large quantities of water. Do NOT give vinegar, baking soda or acidic antidotes. GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation: Remove the victim to fresh air at once.

Skin: Wash with soap and water, flush with plenty of water.

Eyes: Flush with plenty of water for 15 minutes, lifting the lower and upper lids occasionally. GET MEDICAL ATTENTION IMMEDIATELY. Contact lenses should not be worn when working with this chemical.

Section V - Fire Fighting Measures

Flash Point: Nonflammable

Autoignition Temperature: Nonflammable

Lower Explosive Limit: Nonflammable

Upper Explosive Limit: Nonflammable

Unusual Fire and Explosion Hazards: Heat and acid contamination will produce irritating and toxic fumes. May decompose, generating irritating chlorine gas.

Extinguishing Media: N/A

Special Firefighting Procedures: N/A

Section VI - Accidental Release Measures

[Spills may need to be reported to the National Response Center (800/424-8802) DOT Reportable Quantity (RQ) is 100 pounds Ventilate the area of the spill or leak. For large spills, evacuate the hazard area of unprotected personnel. Wear appropriate protective clothing. Dike and contain. Neutralize with sodium sulfite, bisulfite or thiosulfite. Remove with vacuum trucks or pump to storage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; place in non-leaking containers for proper disposal. Flush area with water to remove trace residue; dispose of flush solutions as above. For small spills, take up with an absorbent material and place in non-leaking containers; seal tightly for proper disposal.

Section VII - Handling and Storage

Store in vented, closed, clean non-corrosive 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 decomposition). Do not mix or contaminate with ammonia, hydrocarbons, acids, alcohols or ethers.

Section VIII - Exposure Controls/Personal Protection

Respiratory Protection: Always use only NIOSH/MSHA-approved respirators with acid type canisters or in the case of a fire use self-contained breathing apparatus.

Ventilation: No special ventilation is required unless bleach is exposed to decomposition conditions, i.e. heat or acidic conditions.

Protective Clothing: Avoid contact with the eyes. Wear chemical goggles and/or face shield if there is the likelihood of contact with the eyes. Avoid prolonged or repeated contact with the skin. Wear chemical-resistant gloves and other clothing as required to minimize contact.

Other Protective Clothing or Equipment: Safety showers and eyewash fountains should be available in storage and handling areas.

Work/Hygienic Practices: All employees who handle sodium hypochlorite should wash their hands before eating, smoking, or using the toilet facilities.

Section IX - Physical and Chemical Properties

Physical State: Liquid

pH: 12

Melting Point/Range: N/A

Boiling Point/Range: 48-76°C (120-170°F) for 15%

(Decomposes)

Appearance/Color/Odor: Green to Yellow watery liquid with a pungent chlorine odor

Solubility in Water: 100%

Vapor Pressure(mmHg): 16-17.5

Specific Gravity(Water=1):

1.07-1.26

Molecular Weight: N/A

Vapor Density(Air=1): 1

% Volatiles (by volume): Variable-Water plus

products of Decomposition

How to detect this compound:

N/A

Section X - Stability and Reactivity

Stability: Unstable

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Stability decreases with concentration, heat, light exposure, decrease in pH and contamination with heavy metals, such as nickel, cobalt, copper and iron.

Materials to Avoid: Strong acids, strong oxidizers, heavy metals(which act as catalysts), reducing agents, ammonia, ether, and many organic and inorganic chemicals such as paint, kerosene, paint thinners, shellac, etc.

Hazardous Decomposition Products: Chlorine, hydrochloric acid, hypochlorous acid (HOCL). Composition depends upon temperature and decrease in pH. Additional decomposition products which depend upon pH, temperature and time are sodium chloride, sodium chlorate and oxygen.

Section XI - Toxicological Information

Toxicity Data: By ingestion, Grade 1: oral rat LD₅₀=8.91 g/kg IDLH Value: Data not availabe

Section XII - Ecological Information

N/A

Section XIII - Disposal Considerations

Can be neutralized with weak reducing agents such as sodium sulfite, bisulfite, or thiosulfite (DO NOT USE SULFATES OR BISULFATES). Dispose of in accordance with all applicable local, county, state and federal regulations.

Section XIV - Transport Information

DOT Proper Shipping Name: Hypochlorite Solution

DOT Hazard Class/ I.D. No.: 8, UN1791, III

Section XV - Regulatory Information

Reportable Quantity: 1000 Pounds (45.4 Kilograms)
NFPA Rating: Health - 2; Fire - 0; Reactivity - 1

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Carcinogenicity Lists: No NTP: No IARC Monograph: No OSHA Regulated: No

NSF Standard 60 Maximum Use 210 mg/L

Section XVI - Other Information

Hazardous Ingredients: Sodium hypochlorite is manufactured only in solution form. Industrial grade sodium hypochlorite contains from 10 - 15% by weight NaOCL (10 - 17.8% available chlorine) with about 0.50-1.00% excess NaOH for stability control.

Synonyms/Common Names: Liquid Bleach Chemical Family/Type: Halogen Compound Sections changed since last revision: I, II, IX

IMPORTANT! Read this MSDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This MSDS has been prepared according to the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The MSDS information is based on sources believed to be reliable. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, Heritage Systems, Inc. makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Also, additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks prior to use, and then to exercise appropriate precautions for protection of employees and others.