



STEELMAN

GASES PVT. LTD.




SAFETY DATA SHEET (MSDS)

Name of chemical: Sodium Hypochlorite Solution

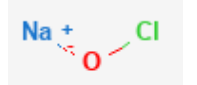
1. PRODUCT IDENTIFICATION / COMPANY ADDRESS

Trade Name	Sodium Hypochlorite Solution	Common Name	Sodium Hypochlorite Solution	Synonyms	Sodium Hypochlorite - 18, Hypo, Liquid Bleach, Bleach, Hypochlorite, Liquid Chlorine Solution, Javel Water
Company Name / Address / Phone / Fax	STEELMAN GASES PVT LTD Survey No. 461, Rajkot - Muli Road, Vil. Shekpar, Surendrangar - 363510 Emergency No +91 8401377444				
Chemical Name	Sodium Hypochlorite Solution				

2. HAZARD IDENTIFICATION

Hazard Classification	HMIS Classification: Health Hazard: 3 Flammability: 0 Physical hazards: 2
LABEL ELEMENTS	<u>HAZARD PICTOGRAMS.</u>    GHS05 GHS07 GHS09
Signal word	Danger
Hazard statement	
Precautionary statement	

3. COMPOSITION / INFORMATION AND INGREDIENTS

Structural Formula		Chemical Family	
		Molecular weight	74.5 g/mol
CAS No	7681-52-9 (NaClO), 1310-73-2 (NaOH)	Molecular Formula	NaOCl
Name	Product identifier	%	Classification
Sodium Hypochlorite Solution	7681-52-9	10-20% (Sodium hypochlorite) 1.00 - 5.0 % (sodium hydroxide)	

4. FIRST AID MEASURE

Ingestion	<ul style="list-style-type: none"> • Call a doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the doctor. • Do not give anything by mouth to an unconscious person.
Inhalation	<ul style="list-style-type: none"> • Move person to fresh air. • If breathing is difficult oxygen may be beneficial if administered by trained Personnel. • If breathing has stopped, apply artificial respiration. • Send person for medical treatment IMMEDIATELY.
Eyes	<ul style="list-style-type: none"> • IMMEDIATELY flush eyes with plenty of water holding eyelids apart for at least 15-20 minutes • Get medical attention IMMEDIATELY
Skin	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
Antidote	
Most important symptoms/ effects, acute and or delayed	<p>Eye Contact- Causes serious eye irritation, Blurred vision and may cause impairment of vision and corneal damage</p> <p>Inhalation- May cause irritation to the respiratory tract, (nose and throat); Symptoms may include coughing and sore throat</p> <p>Skin contact- May cause skin irritation and/or dermatitis. Prolonged skin exposure may cause destruction of the dermis with Impairment of the skin to regenerate at site of contact.</p>
Indication of immediate medical attention and special treatment needed	<p>Repeated inhalation exposure may cause impairment of lung function and permanent lung damage.</p> <p>Effects from chronic skin exposure would be like those from single exposure except for effects secondary to tissue destruction.</p>

5. FIRE FIGHTING MEASURES

Fire extinguishing media	<ul style="list-style-type: none"> • Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. • On small fire, use dry chemical, carbon dioxide or water spray. • On large fires, use water in flooding quantities as fog. • Do not use Mono Ammonium Phosphate (MAP) type extinguishers directly on this product
Hazardous decomposition products	<ul style="list-style-type: none"> • Not considered to be a fire hazard. Substance releases oxygen when heated, which may increase the severity of an existing fire. Containers may rupture from pressure build-up.
Special firefighting procedure	<p>Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to: boots gloves, hard hat, splash-proof goggles, full face shield and impervious clothing, i.e. chemically impermeable suit.</p> <p>Compatible materials for response to this material are neoprene and butyl rubber.</p>
Precaution to Fire Fighters	<ul style="list-style-type: none"> • Cool containers / tanks with water spray

6. ACCIDENTAL RELEASE MEASURES


Personal precaution	<ul style="list-style-type: none"> • Restrict access to affected area. • Use personal protective equipment. • Use approved cartridge type respiratory protection. • Keep people away from and upwind of spill/leak.
Precautions for the environment	<p>Dispose of as hazardous waste in compliance with local, province, state and federal regulations.</p> <p>You are requested to contact the emergency numbers listed below before beginning any such operation.</p>
Clean up method	<ul style="list-style-type: none"> • Try to prevent the material from entering drains or water courses. • Prevent further leakage or spillage if safe to do so. • Inform the responsible authorities in case of gas leakage, or of entry into waterways soil or drains will form hazardous reaction products • Suppress (knock down) gases/vapors/mists with a water spray jet. • Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a suitable container for disposal according to local / state / province/national regulations)

7. HANDLING AND STORAGE

General precaution	<p>Personnel working with this chemical should be trained on its hazards.</p> <p>Avoid contact with skin and eyes.</p> <p>Do not ingest.</p> <p>Avoid inhalation of vapor or mist.</p>
Personal protection	<p>Wear personal protective equipment as per Section-8.</p>

Storage	Requirements for storage areas and containers <ul style="list-style-type: none"> • Do not freeze. • Store in a cool and shaded area. • Keep in a well-ventilated place. • To maintain product quality, do not store in heat or direct sunlight. • Decomposition rate increases as it is heated. • Keep in properly labeled containers. • Keep container closed when not in use.
Incompatibilities	No data available

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Personal protection 			
Skin	<ul style="list-style-type: none"> • Boots. Full protective suit Wear protective gloves. 	Eyes	<ul style="list-style-type: none"> • Ensure that eyewash stations and safety showers are close to the workstation location. Chemical resistant goggles must be worn.
Respiration	<ul style="list-style-type: none"> • If the exposure limit is exceeded and engineering controls are not feasible, a full face piece respirator gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the respirator supplier. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. 	Other	
Exposure limits			
TLV-TWA	2 mg/m ³	TLV-STEL	2 mg/m ³
Appropriate Engineering Control	Use local exhaust ventilation to maintain levels to below the PEL.		

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow to yellowish green liquid	Molecular Weight	74.5 g/mol	Specific gravity	No data available
Odour/Odor threshold	Pungent	Flash Point °C	Not Pertinent	pH/ Acidity	12 - 14 at 77 F (25 C)
Auto Ignition Temp. °C	Not applicable	Boiling Point °C @ 760 mm Hg	Decomposes on heating	Melting Point °C	

Vapor Press. Mm Hg @ 20 °C	12 mmHg at 68 F (20 C) 12.5% Solution	Vapour Density	No data available	Water Solubility @ 20 °C	Completely Miscible
LEL %	Not Pertinent	UEL %	Not Pertinent	% Volatile	
Evaporation rate		Viscosity @ 25 °C		PH	12 - 14 at 77 F (25 C)
Octanol / Water Partition Coefficient	No data Available			No data available	

10. STABILITY AND REACTIVITY

Chemical Stability	Stable if stored under the temperature: 86 °F (30 °C)	Possibility of Hazardous reaction	
Hazardous Reactions/ Decomposition products	Decomposition will result in the formation of oxygen from contact with copper, nickel, cobalt and iron solids such as rust. Decomposition rate increases as it is heated. May develop chlorine if mixed with acidic solutions.	Incompatible Materials	Oxidizing agents, Acids, Nitrogen containing organics, Metals, Iron, Copper, Nickel, Cobalt, Organic materials and Ammonia.
Condition to avoid	<ul style="list-style-type: none"> • Oxidizing agents, Acids, Nitrogen containing organics, Metals, Iron, Copper, Nickel, Cobalt, Organic materials, Ammonia • High heat, sunlight and ultra-violet light 		

11. TOXICOLOGICAL INFORMATION

Routes of exposure	Inhalation, dermal, Mouth.				
LD50 (oral / rats) mg/kg	Dose: 3 - 5 g/kg	LD50 (dermal/ rats) mg/kg		LC50 (inhalation / rats) - 4 hrs. mg/l	No data available
Target Organ Effects	Ingestion, Eyes, Inhalation, Skin Absorption				
Symptoms related to physical, chemical & toxicological characteristics			<ul style="list-style-type: none"> • Causes serious eye irritation. • Blurred vision • May cause impairment of vision and corneal damage 		

12. ECOLOGICAL INFORMATION

Mobility in Soil	No data available
Persistence and degradability	No data available
Bio accumulative Potential	No data available
Effects on fish (Ecotoxicity)	It is toxic to fish and aquatic organisms
Effects on birds	No data available
Effects on bees	No data available

13. DISPOSAL CONSIDERATIONS

Refer to local government authority for disposal recommendations. Dispose of material through a licensed waste contractor.
Decontamination and destruction of containers should be considered.

14. TRANSPORT INFORMATION

UN No.	UN1791	IMDG No.	
Shipping Name	Hypochlorite Solutions	Hazard class	8
Packing group		Hazard Sub class	
Marine Pollutant	No	Labels required	Corrosive Chemical
Warning Statement			
Packaging / Precaution			
Shipping Marking			

15. REGULATORY INFORMATION

LABELING:

SYMBOLS: Xi, T, C,

PHRASES R:

R31: Contact with acids liberates toxic gas.

R34: Causes burns

R41: Risk of serious damage to eyes

R50: Very toxic to aquatic organisms

PHRASES S:

S24/25: Avoid contact with skin and eyes

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28: After contact with skin, wash immediately with plenty of soap and water

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

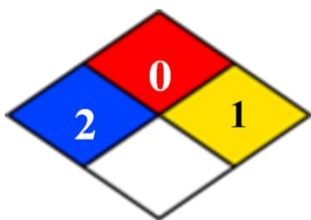
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

S50: Do not mix with acids.

S61: Avoid release to the environment. Refer to special Instructions Safety Data Sheets.

16. OTHER INFORMATION

NFPA Rating :



The information provided in this Material Safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with other materials

This data belongs to **STEELMAN GASES PVT LTD** . All rights reserved.