Safety Data Sheet

1. SUBSTANCE IDENTIFICATION/ PREPARATION AND COMPANY DETAILS

Product Name: 4% LIQUID BLEACH

Recommended use: Bleaching Agent

Supplier: Stelco Chemicals International Pty Ltd
ACN: 151 834 347

Street Address: 46-48 Henderson Road
Rowville 3178
Australia

Telephone: +61 3 9757 3100
Facsimile: +61 3 9763 8243

Emergency Telephone Number: 0412 318 882

2. HAZARDS INDENTIFICATION

Classified as hazardous according to the criteria of Safe Work Australia; HAZARDOUS SUBSTANCE.

GHS classification:
Skin corrosion/irritation, Category 2, H315
Serious eye damage/Eye irritation, Category 2A, H319

Pictograms:

Signal word: **WARNING**

Hazard statements:
EUH031: Contact with acids liberate toxic gas.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Precautionary statements:
P264: Wash hands thoroughly after handling.
P280: Wear protected gloves/protective clothing/eye protection/face protection.
P302 + P352: IF ON SKIN: Wash with plenty water.
P332 + P313: If skin irritation occurs: Get medical advice/attention.
P362 + P364: Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention.

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Code (ADG Code) for transport by road or rail. Refer to relevant regulations for storage and transport requirements.
Poisons Schedule (Aust.) / Toxic Substance (NZ): S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion
Sodium hypochlorite	7681-52-9	1-5%
Non-hazardous components	-	> 90%

4. FIRST AID MEASURES

For advice contact a Poisons Information Centre, Australia 131 126 or a doctor.

Description of first aid measures

Ingestion: Rinse mouth with water. Give water to drink. Do NOT induce vomiting. Seek medical assistance.

Eye contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Seek immediate medical assistance.

Skin contact: Wash contaminated skin with plenty of water. Remove contaminated clothing and wash before reuse. If irritation occurs seek medical advice.

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

Most important symptoms and effects, both acute and delayed

Refer to section 2 and 11.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Specific Hazards: Non-combustible material.

Firefighting further advice: Not combustible. Keep containers cool with water spray. Heating can cause decomposition leading to toxic fumes, including those of chlorine. If safe to do so, remove containers from path of fire. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of decomposition.

Suitable extinguishing media: Water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder).

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures: Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Methods and materials for containment and clean up: Wear protective equipment to prevent skin and eye contamination and breathing in vapours. Work up wind or increase ventilation. Contain – prevent run off into drains and waterways. Use absorbent (inert material, sand or soil). Sweep up, but avoid generating dust. Collect and seal in properly labelled clean plastic containers with loose fitting lids.

7. HANDLING AND STORAGE

This material is a Scheduled Poison S5 and must be stored, maintained and use in accordance with the relevant regulations.

Storage: Store in a cool (below 40C), dry place out of direct sunlight in a well-ventilated area. Store away from acids and foodstuffs and incompatible materials listed in Section 10. Keep containers closed at all times - check regularly for spills.

Handling: Avoid skin and eye contact, breathing in vapour, mists and aerosols. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits: No value assigned for this specific material by the National Occupational Health and Safety Commission. However, Exposure Standards for constituents:

Chemical name	CAS No.	TWA (ppm)	TWA (mg/m^3)	STEL (ppm)	STEL (mg/m^3)	Advisory carcinogen category	Other advisory information
Chlorine	7782-50-5	1 Peak Limitation	3 Peak Limitation	-	-	-	-

As published by the National Occupational Health and Safety Commission.

Peak Limitation – a ceiling concentration which should not be exceeded over a measurement period which should be a short as possible but not exceeding 15 minutes.

These exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Engineering measures: Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Exposure Standards. Use with local exhaust ventilation or while wearing supplied respirator/mask. Keep containers closed when not in use.

Personal protection equipment: OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES & GLOVES.
Avoid skin and eye contact and inhalation of dust. Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling vapours. If inhalation risk exists, wear a respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or reusing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Clear, pale yellow liquid with chlorine odour
Solubility: Miscible in water

Specific Gravity (20C)	:	1.05
pH (10% aq. soln.)	:	> 12.0
Solubility in water (g/L)	:	Complete

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. The amount of available chlorine diminishes over time.

Conditions to avoid: Avoid contact with foodstuffs. Avoid exposure to heat, sources of ignition and open flame. Avoid exposure to light. Avoid contact with other chemicals. Avoid contact with acids.

Incompatible materials: Incompatible with acids, reducing agents, metals and metal salts, peroxides and ethylene diamine tetraacetic acid. Incompatible with ammonia and ammonium compounds such as amines and ammonium salts.

Hazardous decomposition products: Chlorine

Hazardous reactions: Hazardous polymerisation will not occur. Reacts exothermically with acids – liberating toxic gas –Chlorine. Decomposes on heating to produce chlorine gas. Reacts with ammonia, amines and ammonium salts to produce chloramines.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

Hypochlorite solutions are of low acute oral toxicity. This is confirmed by the available data from human accidents, where the few deaths that have occurred after hypochlorite ingestion are mostly attributable to aspiration pneumonia.

The information available shows that sodium hypochlorite has a very low dermal acute toxicity.

The study on inhalation acute toxicity available did not show an effect on rat. This confirms that inhalation is not a route of exposure for sodium hypochlorite, except in case of aerosol formation.

Based on the results obtained in the acute toxicity studies and taking into account the provisions laid down in Council Directive 67/548/EEC and 1272/2008/EC (CLP), sodium hypochlorite does not have to be classified with respect to acute oral, dermal and inhalation toxicity.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
sodium hypochlorite	LD50: 1100 mg/kg (rat)	LD50: 20000 mg/kg (rat)	LC50: 10500 mg/m^3 (rat)

Skin corrosion/irritation: Sodium hypochlorite, 5.25 %, was slightly irritant in rabbits and guinea pigs under the conditions described in the study (Nixon, 1975).

Serious eye damage/irritation: New Zealand white rabbits and monkeys were treated with sodium hypochlorite solution of approximately 5%. Signs of irritation were

observed in the cornea, iris and or conjunctiva.

Respiratory or skin sensitisation: The sensory respiratory irritation potential of sodium hypochlorite was assessed in the mouse with an aerosol of sodium hypochlorite (10% w/w). some sensory irritant responses were observed related to its content of chlorine. Studies in human volunteers indicated that sodium hypochlorite is irritating for the tract at concentrations above 0.5 ppm.

Sodium hypochlorite is not considered to be skin sensitising.

Germ cell mutagenicity: Sodium hypochlorite/hypochlorous acid is not considered to be genotoxic/mutagenic or clastogenic and thus has not to be classified mutagenic according to Council Directive 67/548/EEC and CLP.

Cancerogenicity: Non carcinogenic.

Reproductive toxicity: There is no evidence to suggest that sodium hypochlorite would present adverse effects on development or fertility.

Specific Target Organ Toxicity (STOT): - single exposure: No data available

Specific Target Organ Toxicity (STOT): - repeated exposure: No data available

Aspiration hazard: No data available

Likely routes of exposure: Skin contact. Eye contact.

Main symptoms: No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in vomiting, irritation of the gastrointestinal tract.

Skin contact: Contact with the skin will result in irritation.

Eye contact: A severe eye irritant.

Inhalation: Inhalation in mists or aerosols may result in respiratory irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Material is very toxic to aquatic organisms.

Persistence and degradability: Material is biodegradable

Bioaccumulative potential: No data available

Mobility in soil: No data available

Other adverse effects: Avoid release to the environment

13. DISPOSAL CONSIDERATIONS

Refer to State Land Waste Management Authority.

14. TRANSPORT INFORMATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by road or rail.

15. REGULATORY INFORMATION

NOT Hazardous according to criteria of Safe Work Australia.

Poisons Schedule (Aust.) / Toxic Substance (NZ): S5

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

This Material Safety Data sheet has been prepared by Stelco Chemicals International Pty Ltd.
Issue Date: 03.06.2021 Supersedes Issue Date: 11.07.2016
Reason(s) for Issue: Five-year update.
This MSDS summarises at the date of issue our best knowledge of the health and safety information of the product, and in particular how to safely handle and use the product in the workplace. As each workplace is different each user must, prior to use, review thus MSDS in the context of how the user intends to handle and use the product in the workplace.
If clarification of further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.