



SAFETY DATA SHEET

SODIUM HYPOCHLORITE 10%

Infosafe No.: CI05Q
ISSUED Date : 04/05/2023
ISSUED by: Custom Chemicals International
Pty Ltd

Section 1 - Identification

Product Identifier

SODIUM HYPOCHLORITE 10%

Product Code

0071254

Company Name

CUSTOM CHEMICALS INTERNATIONAL PTY LTD (ABN 73 050 537)

Address

103-107 Potassium Street
QLD AUSTRALIA
AUSTRALIA Narangba
QLD AUSTRALIA

Telephone/Fax Number

Tel: 07 3204 8300
Fax: 07 3204 8311

Emergency Phone Number

13 1126 in Australia (AH)

Recommended use of the chemical and restrictions on use

Concentrated bleach solution

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Corrosive to metals: Category 1

Eye damage/irritation: Category 1

Hazardous to the Aquatic Environment - Acute Hazard: Category 1

Skin corrosion/irritation: Category 1B

Signal Word (s)

DANGER

Hazard Statement (s)

AUH031 Contact with acids liberates toxic gas.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Pictogram (s)

Corrosion, Environment

**Precautionary Statement – Prevention**

- P234 Keep only in original packaging.
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P264 Wash contaminated skin thoroughly after handling.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Precautionary Statement – Response

- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 P390 Absorb spillage to prevent material damage.

Precautionary Statement – Storage

- P405 Store locked up.
 P406 Store in a corrosion resistant container with a resistant inner liner.

Precautionary Statement – Disposal

- P501 Dispose of contents/container to an approved waste disposal plant.

Precautionary Statement – General

- P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read carefully and follow all instructions.

IMPORTANT NOTE(S)

This SDS and the Hazard Classifications contained therein, only apply to the product in its concentrated form, as supplied. When diluted to 1:25 or greater they no longer apply. However, good hygiene and housekeeping practices should be adhered to.

Section 3 - Composition and Information on Ingredients**Ingredients**

Name	CAS	Proportion
Sodium hypochlorite	7681- 52- 9	10- 30 %

Section 4 - First Aid Measures**Inhalation**

If inhaled, remove affected person from contaminated area. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. If vomiting occurs, give further water to achieve effective dilution. Seek immediate medical attention.

Skin

Wash skin with plenty of water. Ensure contaminated clothing is washed before re-use or discard. Seek medical attention if burning, irritation or redness develops.

Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

First Aid Facilities

Eyewash, safety shower and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

Fire Fighting Measures

Keep containers exposed to extreme heat cool with water spray.

Suitable Extinguishing Media

Use carbon dioxide, water fog or fine water spray.

Hazards from Combustion Products

Non combustible material however if involved in a fire will emit toxic fumes.

Contact with metals may evolve flammable hydrogen gas.

Container may explode when heated.

Specific hazards arising from the chemical

Contact with metals may evolve flammable hydrogen gas.

Special Protective Equipment and Precautions for Firefighters

Fire fighters to wear self contained breathing apparatus and chemical splash suit if risk of exposure to products of combustion or decomposition.

Fight fire from a safe distance with adequate cover.

Hazchem Code

2X

Section 6 - Accidental Release Measures

Methods and materials for containment and cleaning up

Avoid contact with spilled or released material.

Isolate hazard area and deny entry to unnecessary or unprotected personnel.

Remove all sources of ignition in the surrounding area.

Spills & Disposal

Minor spills do not normally need any special clean up measures. In the event of a large spill, prevent spillage from entering watercourses. Wear appropriate protective equipment (as listed in Section 8 of this SDS) to prevent eye and skin contamination.

Spilt material may result in a slip hazard and should be absorbed into dry, inert material to be collected in appropriately labelled containers for disposal by an approved agent according to local regulations.

Residual deposits will remain slippery, wash down with excess water. If required, neutralise with sodium metabisulphite or sodium thiosulphate. If contamination of drains or sewers occurs advise local emergency services.

Clean-up Methods - Large Spillages

For large spills or tank rupture, consider initial evacuation to a distance of 100m in all directions. Stop leak if safe to do so. If available use water spray to disperse vapours. Wear appropriate PPE as listed in Section 8 of this SDS to prevent skin and eye contamination.

Notify local environmental protection authority.

Environmental Precautions

Use appropriate containment to avoid environmental contamination.

Prevent from spreading and entering waterways using sand, earth or other appropriate barriers.

Section 7 - Handling and Storage

Precautions for Safe Handling

Avoid contact with incompatible materials. When handling DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with water after handling.

Conditions for safe storage, including any incompatibilities

Store in a cool dry well-ventilated area. Do not store in aluminium or light alloy containers. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

No Exposure Limit Established

Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing mists and fumes away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of dust below the exposure standards, suitable respiratory protection must be worn.

Respiratory Protection

Not required for normal cleaning operations with adequate ventilation. Where high contaminant spray mist or vapour levels exist, the following additional equipment is required: For short, elevated exposures eg. spillages - Appropriate organic vapour cartridge respirator as per the requirements of AS/NZ 1715 & AS/NZ 1716.

For prolonged exposure and confined spaces - full face, air supplied or self contained breathing apparatus.

Eye and Face Protection

Generally not required to handle properly diluted solutions of the product. The use of safety glasses with side shield protection, goggles or face shield is recommended to handle in quantity, cleaning up spills, decanting etc.

Hand Protection

Wear gloves. Overalls, work boots & elbow length gloves are recommended for handling the concentrated product in quantity, cleaning up spills, decanting etc.

Body Protection

When using large quantities or where heavy contamination is likely, wear a rubber or PVC apron.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid	Appearance	Straw coloured liquid
Odour	Chlorine	Freezing Point	Approx 0°C
Boiling Point	100°C	Solubility in Water	Miscible in all proportions.
Specific Gravity	1.2 (25°C)	pH	13.0 (neat)
Vapour Pressure	Not available	Volatile Component	Ca 90% v/v
Flash Point	Not flammable		

Section 10 - Stability and Reactivity**Reactivity**

Sodium hypochlorite solutions decompose slowly on contact with carbon dioxide from air at normal temperatures releasing low concentrations of corrosive chlorine gas. This decomposition is influenced by factors such as temperature, concentration, pH, ionic strength, exposure to light and the presence of metals such as copper, nickel or cobalt, metal oxides such as rust and other impurities.

Chemical Stability

Stable under normal conditions of storage and handling. The amount of available chlorine diminishes over time.

Possibility of hazardous reactions

Reaction with primary amines (e.g. ethylamine) and aromatic amines (e.g. aniline) forms explosively unstable N-mono- or di-chloramines. Reaction with ammonium salts (e.g. ammonium sulfate and ammonium nitrate), ammonia, urea or phenylacetoneitrile forms explosive nitrogen trichloride, if acid is present. Contact with acids, especially hydrochloric acid, releases toxic and corrosive chlorine gas. Reactions with reducing agents (e.g. hydrides, such as lithium aluminum hydride) are violent. Reactions with ethyleneimine (aziridine) form the explosive N-chloroethyleneimine. Reactions with methanol can form explosive methyl hypochlorite, especially in the presences of acids or other estification catalysts. Reactions with formic acid become explosive at 55oC. Drop wise addition of the furfuraldehyde to a 10% excess sodium hypochlorite solution at 20-25oC can lead to violent explosion. Reaction with ethanediol (ethylene glycol) is explosively violent after an induction period of about 4 to 8 minutes. Reaction with sodium ethylenediaminetetracetate (EDTA) solution and sodium hydroxide solution with mixing leads to vigorous foaming decomposition will not occur.

Conditions to Avoid

ACIDS; violent reaction can occur yielding heat and pressure which can burst an enclosed container.

Attacks many reactive metals (aluminium, magnesium, zinc alloys) releasing flammable gas (hydrogen) which then generates fire or explosion hazards.

Reacts slowly with ambient air (particularly carbon dioxide) which may cause certain insoluble salts to form in solutions.

Incompatible Materials

Primary amines (e.g. ethylamine) and aromatic amines (e.g. aniline); ammonium salts (e.g. ammonium sulfate and ammonium nitrate), ammonia, urea or phenylacetonitrile if acid is present; acids (especially hydrochloric acid); metals (especially copper, nickel and cobalt); reducing agents (e.g. hydrides such as lithium aluminum hydride); ethyleneimine (aziridine); methanol; especially in the presence of acids or other etherification catalysts; formic acid (at 55oC); furfuraldehyde, ethanoediol (ethylene glycol); sodium ethylenediaminetetracetate (EDTA) solution and sodium hydroxide solution and mixing.

Hazardous Decomposition Products

Dangerous, corrosive, irritating, toxic and/or hazardous combustion fumes, vapours, or gases including chlorine gas (above 35oC), or when mixed with chemicals (e.g. ammonia, acids, detergents, etc) or organic matter (e.g. urine, faeces etc.), hydrogen chloride gas, hydrochloric acid, sodium chlorate, oxygen gas (when exposed to sunlight), chloramine gas (when mixed with ammonia), flammable hydrogen gas (upon contact with metals) and sodium oxide (Na₂O) at high temperatures.

Section 11 - Toxicological Information

Toxicology Information

No adverse health effects expected if the product is used in accordance with this Safety Data Sheet and product label.

Acute Toxicity - Oral

For Sodium Hypochlorite

LD50(Rat): 8910 mg/kg

Ingestion

Corrosive - toxic. Ingestion may result in burns to the mouth and throat, nausea, vomiting, ulceration of the gastrointestinal tract, breathing difficulties, circulatory collapse and coma.

Inhalation

Corrosive - toxic. Over exposure may result in mucous membrane irritation of the respiratory tract, coughing and possible burns. High level exposure may result in ulceration of the respiratory tract, breathing difficulties, chemical pneumonitis and pulmonary oedema.

Skin

Corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns. Prolonged or repeated contact may result in ulceration.

Eye

Highly corrosive. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and corneal burns with possible permanent damage.

Respiratory Sensitisation

Repeated overexposure may lead to increased susceptibility to respiratory illness.

Skin Sensitisation

Prolonged and repeated skin contact with diluted solutions may induce eczematoid dermatitis.

Sensitisation

Not expected to be a skin or respiratory sensitizer.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

No significant ingredient is classified as carcinogenic by NOHSC.

Reproductive Toxicity

Not considered to be toxic to reproduction.

Aspiration Hazard

Not expected to be an aspiration hazard.

Chronic Effects

Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and or conjunctivitis. There exists limited evidence that shows that skin contact with the material is capable of inducing a sensitization reaction in a significant number of individuals, and/or of producing positive response in experimental animals. Reduced respiratory capacity may result from chronic low level exposure to chlorine gas. Chronic poisoning may result in coughing, severe chest pains, sore throat and haemoptysis. Moderate to severe exposure over 3 years produces decreased lung capacity in a number of workers. Delayed effects can include shortness of breath, violent headaches, pulmonary oedema and pneumonia. Amongst chlor-alkali workers exposed to mean concentrations of 0,15 ppm for an average of 10.9 years generalized pattern of fatigue (exposures of 0.5 ppm and above) and a modest increased incidence of anxiety and dizziness were recorded. Leukocytosis and lower haematocrit showed some relation to exposure.

Specific Target Organ Toxicity (STOT)

Not expected to cause toxicity to a specific target organ.

Section 12 - Ecological Information

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Individual components stated to be biodegradable.

Mobility

Product miscible in all proportions with water. Do not discharge bulk quantities into drains, sewers or waterways.

Environmental Protection

Prevent large amounts from entering waterways, drains and sewers.

Acute Toxicity - Fish

Toxic to aquatic organisms. Prevent spills from entering drains or watercourses.

LC50(48hr): 0.07 - 5.9 mg/L

Section 13 - Disposal Considerations

Disposal Considerations

Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.

Section 14 - Transport Information

Transport Information

This material is classified as a Class 8 Corrosive Substances Dangerous Goods

Class 8 Dangerous Goods are incompatible in a placard load with any of the following:

- Class 1: Explosives
 - Division 4.3: Dangerous when wet Substances
 - Division 5.1: Oxidising substances
 - Division 5.2: Organic peroxides
 - Class 6, Toxic or Infectious Substances, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids
 - Class 7: Radioactive materials unless specifically exempted
- and are incompatible with food and food packaging in any quantity.

Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis. Packing Group I and II acids and alkalis should be considered as strong.

ADG U.N. Number

1791

ADG Proper Shipping Name

HYPOCHLORITE SOLUTION

ADG Transport Hazard Class

8

ADG Packing Group

III

Hazchem Code

2X

IERG Number

37

Special Precautions for User

Special provisions: 223

Limited quantity: 5L

UN Number (Road Transport)

1791

Section 15 - Regulatory Information

Regulatory Information

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia

Classified as a Scheduled Poison (S5) according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Poisons Schedule

S5

Section 16 - Any Other Relevant Information

Date of Preparation

SDS reviewed: May 2023, Supersedes: August 2017

Revisions Made

GHS7 Revision

Key Abbreviations or Acronyms Used

ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail.

AICS: Australian Inventory of Chemical Substances.

CAS Number: Chemical Abstracts Service Registry Number.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

HAZCHEM: An emergency action code of numbers and letters which gives information to emergency services.

HSIS: Hazardous Substances Information System

IARC: International Agency for Research on Cancer.

NOHSC: National Occupational Health and Safety Commission.

NTP: National Toxicology Program (USA).

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit.

SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons.

TWA: Time Weighted Average.

UN Number: United Nations Number.

Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

Other Information

DO NOT MIX WITH OTHER CHEMICALS WITHOUT PRIOR CONSULTATION WITH THE MANUFACTURER. Always use product as directed. Never return any unused material to original drum.

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writers knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product.

END OF SDS

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