Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

1 Identification

Product Name: SODIUM HYPOCHLORITE

Other Means of Identification:
Other Name: Sodium hypochlorite with 12.5 % available chlorine

Recommended Use of the Chemical and Restriction on Use: Sanitiser and bleaching agent

Details of Manufacturer or Importer:
DASCO Pty Ltd
24-26 Helen Street
Heidelberg Heights VIC 3081

Phone Number: 03 9459 7004

Emergency telephone number: National Poison Information Centre: 13 11 26

2 Hazard(s) Identification

Hazardous Nature:
Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).


corrosion

Skin Corrosion/Irritation 1A	H314	Causes severe skin burns and eye damage.
Serious Eye Damage/Irritation 1	H318	Causes serious eye damage.


environment

Aquatic Acute 1	H400	Very toxic to aquatic life.

STOT SE 3	H335	May cause respiratory irritation.

Signal Word Danger

Hazard Statements
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

Precautionary Statements

P260	Do not breathe dusts or mists.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
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/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

(Contd. on page 2)

Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

Product Name: SODIUM HYPOCHLORITE

(Contd. of page 1)

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.
P321 Specific treatment (see on this label).
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national regulations.
Additional Information AUH031 Contact with acids liberates toxic gas.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
CAS: 7681-52-9	Sodium hypochlorite, solution Skin Corrosion/Irritation 1B, H314; Aquatic Acute 1, H400; STOT SE 3, H335	10 - 30%
CAS: 7782-50-5	Chlorine Acute Toxicity (Inhalation) 3, H331; Aquatic Acute 1, H400; Skin Corrosion/Irritation 2, H315; Serious Eye Damage/Irritation 2A, H319; STOT SE 3, H335	up to 12.5%
CAS: 1310-73-2	Sodium hydroxide Skin Corrosion/Irritation 1A, H314; STOT SE 3, H335	<5%

4 First Aid Measures

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek immediate medical attention.

Skin Contact:
In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.

Eye Contact:
In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.

Ingestion:
If swallowed, do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:
Inhalation: May cause respiratory irritation, coughing, burning sensation and difficulty breathing, swelling and obstruction of the airways, and pulmonary oedema (fluid build-up in lung tissues). Onset of symptoms may be delayed by a few hours. Pulmonary complications (often from aspiration into the lungs) may contribute to the death of a casualty.
Skin Contact: Causes severe skin burns. May cause redness and blisters.
Eye Contact: Causes serious eye damage. May cause redness.
Ingestion: May cause corrosion of the mucous membranes in the mouth, throat and gastrointestinal tract, pain, abdominal cramps and pain, nausea, vomiting, weakness, oesophageal or gastric perforation, laryngeal oedema (swelling of the larynx), somnolence (general depressed activity), lowering of blood pressure, delirium, loss of consciousness and coma.

(Contd. on page 3)

Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

Product Name: SODIUM HYPOCHLORITE

(Contd. of page 2)

5 Fire Fighting Measures

Suitable Extinguishing Media: Water fog or fine water spray.

Specific Hazards Arising from the Chemical:
Hazardous combustion products include chlorine, sodium chlorate and hydrogen chloride.
This product is not flammable, but may burn or decompose in a fire. May form explosive compounds with amines, ammonium compounds, methanol, aziridine. Explosive reactions with formic acid and phenylacetonitrile.
Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:
When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear approved respiratory protection and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Increase ventilation.

Environmental Precautions:
In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material.
Collect the spilled material and place into a suitable container for disposal.

7 Handling and Storage

Precautions for Safe Handling:
Contact with acids liberates toxic chlorine gas.
May react violently with other types of chlorinating compounds.
Corrosive to metals.
May form explosive compounds with amines, ammonium compounds, methanol and aziridine.
Explosive reactions with formic acid and phenylacetonitrile.
May evolve oxygen on prolonged storage, building up pressure inside sealed containers.
Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.
Food, beverages and tobacco products should not be stored or consumed where this material is in use.
Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:
Store in original container in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from physical damage and direct sunlight. Keep away from acids, peroxides, oxidising agents, combustible materials, metals, metal salts, amines, ammonium compounds, methanol, aziridine, formic acid, phenylacetonitrile, other chlorinating compounds. Do not use metal containers.

8 Exposure Controls and Personal Protection

Exposure Standards:	
CAS: 7782-50-5 Chlorine	
NES	TWA: 3 mg/m³, 1 ppm Peak limitation: 3 mg/m³, 1 ppm

(Contd. on page 4)

Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

Product Name: SODIUM HYPOCHLORITE

(Contd. of page 3)

CAS: 1310-73-2 Sodium hydroxide	
NES	TWA: 2 mg/m³ Peak limitation: 2 mg/m³

Engineering Controls:
Ensure adequate ventilation of the workplace. If handling industrial quantities, or if vapour/aerosol risk exists, provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour as low as possible, at least below the occupational exposure limits.

Respiratory Protection:
Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:
Rubber or plastic gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.
When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.
Impervious overalls, plastic apron, sleeves and boots should be worn when handling industrial quantities. See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:
Eye and face protectors for protection against splashing materials or liquids. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 Physical and Chemical Properties

Appearance:	
Form:	Liquid
Colour:	Clear or slightly yellowish-green liquid
Odour:	Characteristic "hypochlorite" odour
Odour Threshold:	0.3 ppm (chlorine)
pH-Value:	13 (Alkaline)
Melting point/freezing point:	-16 °C
Initial Boiling Point/Boiling Range:	>100 °C
Flash Point:	Not applicable
Flammability:	Contact with combustible material may cause fire.
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure at 20 °C:	17.5 mmHg
Density:	Not determined.
Relative Density at 20 °C:	1.21-1.25 g/mL
Vapour Density:	Heavier than air
Evaporation Rate:	No information available
Solubility in Water:	Miscible in all proportions
Partition Coefficient (n-octanol/water):	No information available
Solvent content:	
% Volatiles by Volume:	77 % (water) 12.5 % (available chlorine)
VOC:	Nil

(Contd. on page 5)

Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

Product Name: SODIUM HYPOCHLORITE

(Contd. of page 4)

10 Stability and Reactivity

Possibility of Hazardous Reactions:
Contact with acids liberates toxic chlorine gas.
May react violently with other types of chlorinating compounds.
Corrosive to metals.
May form explosive compounds with amines, ammonium compounds, methanol and aziridine.
Explosive reactions with formic acid and phenylacetonitrile.
May evolve oxygen on prolonged storage, building up pressure inside sealed containers.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.

Conditions to Avoid: Direct sunlight. May be decomposed by contamination or exposure to sunlight.

Incompatible Materials:
Acids, peroxides, oxidising agents, combustible materials, metals, metal salts, amines, ammonium compounds, methanol, aziridine, formic acid, phenylacetonitrile, other chlorinating compounds.

Hazardous Decomposition Products: Chlorine, sodium chlorate and hydrogen chloride.

11 Toxicological Information

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
CAS: 7681-52-9 Sodium hypochlorite, solution		
Oral	LD_{50}	5800 mg/kg (mouse)
	TDLo	1000 mg/kg (human) (woman)

Acute Health Effects
Inhalation:
May cause respiratory irritation, coughing, burning sensation and difficulty breathing, swelling and obstruction of the airways, and pulmonary oedema (fluid build-up in lung tissues). Onset of symptoms may be delayed by a few hours. Pulmonary complications (often from aspiration into the lungs) may contribute to the death of a casualty.
Skin: Causes severe skin burns. May cause redness and blisters.
Eye: Causes serious eye damage. May cause redness.
Ingestion:
May cause corrosion of the mucous membranes in the mouth, throat and gastrointestinal tract, pain, abdominal cramps and pain, nausea, vomiting, weakness, oesophageal or gastric perforation, laryngeal oedema (swelling of the larynx), somnolence (general depressed activity), lowering of blood pressure, delirium, loss of consciousness and coma.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation: No sensitising effects known.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity:
Hypochlorite salts are classified by IARC as Group 3 - Not classifiable as to its carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure: May cause respiratory irritation.

(Contd. on page 6)

Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

Product Name: SODIUM HYPOCHLORITE

(Contd. of page 5)

Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects:
Prolonged skin contact may lead to irritation and dermatitis. In rare cases, chronic exposure has lead to skin sensitisation.
Prolonged contact with eyes may lead to permanent injury.
Chronic exposure to sodium hypochlorite may lead to methaemoglobinaemia, characterised by chocolate-brown coloured blood, headache, dizziness, weakness, shortness of breath, cyanosis, rapid heart rate, unconsciousness and possible death.
Repeated, low-level exposure to chlorine gas may lead to chloracne and erosion of the teeth.

Existing Conditions Aggravated by Exposure: Respiratory diseases.

Additional toxicological information: No information available

12 Ecological Information

Ecotoxicity:

Aquatic toxicity:
Very Toxic to aquatic life with long lasting effects.

CAS: 1310-73-2 Sodium hydroxide	
EC_{50}/48 h	40.4 mg/l (daphnia)
LC_{50}/96 h	125 mg/l (mosquito fish)
	45.4 mg/l (rainbow trout)

Persistence and Degradability:
Decomposes slowly on exposure to sunlight, and most forms of contamination, generating chlorine.

Bioaccumulative Potential: Not expected to bioaccumulate.

Mobility in Soil: No information available
Other adverse effects: No further relevant information available.

13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

14 Transport Information

UN Number
ADG, IMDG, IATA UN1791

Proper Shipping Name
ADG, IMDG, IATA HYPOCHLORITE SOLUTION

Dangerous Goods Class
ADG Class: 8 Corrosive substances.

Packing Group:
ADG, IMDG, IATA III

(Contd. on page 7)

Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

Product Name: SODIUM HYPOCHLORITE

(Contd. of page 6)

Marine pollutant:	Yes Symbol (fish and tree)
EMS Number:	F-A,S-B
Hazchem Code:	2X
Special Provisions:	223
Limited Quantities:	5L
Packagings & IBCs - Packing Instruction:	P001, IBC03, LP01
Portable Tanks & Bulk Containers - Instructions:	T4
Portable Tanks & Bulk Containers - Special Provisions:	TP2, TP24

15 Regulatory Information

Australian Inventory of Chemical Substances:	
CAS: 7681-52-9	Sodium hypochlorite, solution
CAS: 7782-50-5	Chlorine
CAS: 1310-73-2	Sodium hydroxide
CAS: 7732-18-5	Water

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 18.11.2019

Last Revision of MSDS: 01.09.2009

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations and acronyms:
ADG: Australian Dangerous Goods
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds
LC_{50}: Lethal concentration, 50 percent
LD_{50}: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)
Acute Toxicity (Inhalation) 3: Acute toxicity – Category 3
Skin Corrosion/Irritation 1A: Skin corrosion/irritation – Category 1A
Skin Corrosion/Irritation 1B: Skin corrosion/irritation – Category 1B
Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2
Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1
Serious Eye Damage/Irritation 2A: Serious eye damage/eye irritation – Category 2A
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1

Disclaimer
This SDS is prepared in accord with the Safe Work Australia document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016”
The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. DASCO Pty Ltd makes no representation of the accuracy or comprehensiveness of the

(Contd. on page 8)

Safety Data Sheet
according to WHS Regulations

Printing date 18.11.2019 Revision: 18.11.2019

Product Name: SODIUM HYPOCHLORITE

(Contd. of page 7)

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