

# SAFETY DATA SHEET

According to Safe Work Australia

Printing date 25.08.2014

Revision: 25.08.2014

## 1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

**Product Name: SODIUM HYPOCHLORITE****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:** 13 11 26 (Poisons Information Centre)

## 2 . HAZARDS IDENTIFICATION

**Hazardous Nature:**

skull and crossbones

Acute Tox. 3    H331 Toxic if inhaled.



corrosion

Skin Corr. 1B    H314 Causes severe skin burns and eye damage.



environment

Aquatic Acute 1    H400 Very toxic to aquatic life.



STOT SE 3    H335 May cause respiratory irritation.

**Label Elements****Signal Word** Danger**Hazard Statements**

H331 Toxic if inhaled.

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 dust/fume/gas/mist/vapours/spray.

P261    Avoid breathing dust/fume/gas/mist/vapours/spray.

P280    Wear protective gloves/protective clothing/eye protection/face protection.

P273    Avoid release to the environment.

P264    Wash hands thoroughly after handling.

P271    Use only outdoors or in a well-ventilated area.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P363 Wash contaminated clothing before reuse.
- P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P391 Collect spillage.
- P310 Immediately call a POISON CENTER/doctor.
- P311 Call a POISON CENTER/doctor.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P405 Store locked up.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- 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:**

7681-52-9	Hypochlorous acid, sodium salt ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400	10-30%
7782-50-5	Chlorine ⚠ Acute Tox. 3, H331; ⚠ Aquatic Acute 1, H400; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	up to 12.5%
1310-73-2	Sodium hydroxide (Na(OH)) ⚠ Skin Corr. 1A, H314	<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.

**Information for Doctor****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).

Skin contact: May cause redness, pain, blisters and serious burns.

Eye contact: May cause redness, pain and severe deep burns.

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,

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delirium, loss of consciousness and coma.

## 5 . FIRE FIGHTING MEASURES

**Suitable Extinguishing Media:** Water fog or fine water spray.**Specific Hazards Arising from the Chemical:**

Will react vigorously or violently with acids, generating chlorine, a toxic gas. May evolve oxygen on prolonged storage, building up pressure inside sealed containers. Attacks many metals. May form explosive compounds with amines, ammonium compounds, methanol, aziridine. Explosive reactions with formic acid, phenylacetonitrile. May react with combustible materials, metal salts, peroxides. Hazardous combustion products include chlorine and hydrogen chloride.

**Special Protective Equipment and Precautions for Fire Fighters:**

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

## 6 . ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear Safe Work Australia 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:**

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, oxidising agents, metals, combustible materials and other chlorinating compounds. Do not use metal containers.

## 8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Exposure Standards:****7782-50-5 Chlorine**

NES	TWA: 3 mg/m <sup>3</sup> , 1 ppm Peak limitation: 3 mg/m <sup>3</sup> , 1 ppm
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**1310-73-2 Sodium hydroxide (Na(OH))**

NES	TWA: 2 mg/m <sup>3</sup> Peak limitation: 2 mg/m <sup>3</sup>
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**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.

**Personal Protective Equipment (PPE):****Respiratory Protection:**

Use a Safe Work Australia 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:**

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

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## 10 . STABILITY AND REACTIVITY

**Possibility of Hazardous Reactions:**

Highly alkaline, chlorinating liquid. Will react vigorously or violently with acids, generating chlorine, a toxic gas. May react violently with other types of chlorinating compounds. Attacks many metals. May form explosive compounds with amines, ammonium compounds, methanol, aziridine. Explosive reactions with formic acid, phenylacetonitrile. May react with combustible materials, metal salts, peroxides. May be decomposed by contamination or exposure to sunlight. 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.

**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<sub>50</sub>/LC<sub>50</sub> Values Relevant for Classification:****7681-52-9 Hypochlorous acid, sodium salt**

Oral	LD <sub>50</sub>	5800 mg/kg (mouse)
	TDL <sub>0</sub>	1000 mg/kg (human) (woman)

**Acute Health Effects****Inhalation:**

Toxic if inhaled. 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:** May cause redness, pain, blisters and serious burns.

**Eye:**

May cause redness, pain and severe deep burns. Prolonged contact with eyes may lead to permanent injury.

**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 irritation.

**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.

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Based on classification principles, the classification criteria are not met.

**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 dermatitic effects. In rare cases, chronic exposure has lead to skin sensitisation, although sodium hypochlorite is not a known sensitiser.

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.

**12 . ECOLOGICAL INFORMATION****Ecotoxicity:**

**Aquatic toxicity:** Harmful to aquatic organisms.

**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

**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**

<b>UN Number</b>	1791
<b>Proper Shipping Name</b>	HYPOCHLORITE SOLUTION
<b>Dangerous Goods Class</b>	
<b>ADG Class:</b>	8 Corrosive substances.
<b>Packing Group:</b>	
<b>ADG</b>	III
<b>Marine pollutant:</b>	Symbol (fish and tree)
<b>EMS Number:</b>	FA-SB
<b>Hazchem Code:</b>	2X
<b>Special Provisions:</b>	223
<b>Limited Quantities:</b>	5L
<b>Packagings &amp; IBCs - Packing Instruction:</b>	P001, IBC03, LP01
<b>Packagings &amp; IBCs - Special Packing Provisions:</b>	Not applicable

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**Portable Tanks & Bulk Containers - Instructions: T4****Portable Tanks & Bulk Containers - Special Provisions:**

TP2, TP24

## 15 . REGULATORY INFORMATION

**Australian Inventory of Chemical Substances:**

7681-52-9	Hypochlorous acid, sodium salt
7782-50-5	Chlorine
1310-73-2	Sodium hydroxide (Na(OH))
7732-18-5	Water

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

Poisons Schedule: 6

## 16 . OTHER INFORMATION

**Creation Date:** 25.08.2014**Last Revision of MSDS:** 01.09.2009**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)**Abbreviations and acronyms:**

ADG: Australian Dangerous Goods

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds

LC<sub>50</sub>: Lethal concentration, 50 percentLD<sub>50</sub>: 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)

**Disclaimer**

This MSDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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