

## Section 1 - Identification of The Material and Supplier

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**Chemical nature:** Water solution of chlorinating compound (sodium hypochlorite).

**Trade Name:** **Sodium hypochlorite 10 – 15% w/w**

**Product Use:** Water treatment: Available chlorine = 10 - 15%.

**Creation Date:** **December, 2014**

**This version issued:** **July, 2020** and is valid for 5 years from this date.

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

This product is classified as: C, Corrosive. Hazardous according to the criteria of SWA Australia.

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

**Risk Phrases:** R31, R34, R50. Contact with acids liberates toxic gas (chlorine). Causes burns. Very toxic to aquatic organisms.

**Safety Phrases:** S26, S28, S29, S45, S50, S61, S24/25, S36/37/39. In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre. After contact with skin, wash immediately with plenty of water. Do not empty into drains. In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately (show the label where possible). Do not mix with acids. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye/face protection.

**SUSMP Classification:** S5

**ADG Classification:** Class 8: Corrosive Substances.

**UN Number:** 1791, HYPOCHLORITE SOLUTION



### GHS Signal word: DANGER.

#### HAZARD STATEMENT:

AUH031: Contact with acids liberates toxic chlorine gas.

H314: Causes severe skin burns and eye damage.

H400: Very toxic to aquatic life.

#### PREVENTION

P102: Keep out of reach of children.

P260: Do not breathe fumes, mists, vapours or spray.

P262: Do not get in eyes, on skin, or on clothing.

P264: Wash contacted areas thoroughly after handling.

P273: Avoid release to the environment.

P281: Use personal protective equipment as required.

#### RESPONSE

P310: Immediately call a POISON CENTER or doctor/physician.

P337: If eye irritation persists: seek medical attention.

P363: Wash contaminated clothing before reuse.

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

P370+P378: Not combustible. Use extinguishing media suited to burning materials.

#### STORAGE

### SAFETY DATA SHEET

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**Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)**

P410: Protect from sunlight.

P402+P404: Store in a dry place. Store in a closed container.

**DISPOSAL**

P501: If no in-house recycle or reclaim resources are suitable for this product, contact a specialist waste disposal company (see Section 13 of this SDS).

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**Emergency Overview**

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**Physical Description & Colour:** Pale yellow-green liquid.

**Odour:** Slight chlorine odour.

**Major Health Hazards:** causes burns, may cause serious damage to eyes.

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**Potential Health Effects**

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**Inhalation**

**Short Term Exposure:** Product may be irritating, although unlikely to cause anything more than mild transient discomfort unless liquid is inhaled. If that occurs, it is likely to cause intense pain and corrosion of nasal passages. Damage may be permanent if exposure is extensive, or if prompt treatment does not take place.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

**Skin Contact:**

**Short Term Exposure:** Product is corrosive to the skin. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. If exposure is extensive, corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure. Burns may not be immediately painful; the onset of pain may be minutes to hours.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

**Eye Contact:**

**Short Term Exposure:** Product is corrosive to eyes. It will cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is quickly treated, permanent blindness and facial scarring is likely.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. This product is likely to cause headache and gastric disturbance such as nausea and vomiting if ingested. This product is corrosive to the gastrointestinal tract. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

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

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Ingredients	CAS No	Conc, %	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Sodium hypochlorite	7681-52-9	12.5	not set	not set
Sodium hydroxide	1310-73-2	<1	2	peak
Water	7732-18-5	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

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**Section 4 - First Aid Measures**

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**General Information:****SAFETY DATA SHEET**

Issued by: Ruakura Pty Ltd

Phone: 02 4648 2463 (office hours)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

**Inhalation:** No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice. If liquid is inhaled, seek urgent medical advice.

**Skin Contact:** Flush contaminated area with lukewarm, gently flowing water for at least 40 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Under running water, remove contaminated clothing, shoes and leather goods (eg watchbands and belts). Strongly basic ingredients tend to penetrate the skin and so need longer rinsing than other substances. If irritation persists, repeat flushing. Seek medical attention.

**Eye Contact:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. If irritation persists, repeat flushing. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed.

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## Section 5 - Fire Fighting Measures

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**Fire and Explosion Hazards:** There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

This product is likely to decompose only after heating to dryness, followed by further strong heating.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

**Flash point:** Does not burn.

**Upper Flammability Limit:** Does not burn.

**Lower Flammability Limit:** Does not burn.

**Autoignition temperature:** Not applicable - does not burn.

**Flammability Class:** Does not burn.

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## Section 6 - Accidental Release Measures

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**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. It should be fitted with a type B1 cartridge, suitable for acid gases (unlike sodium hypochlorite, chlorine is an acidic gas). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Because of the corrosiveness of this product, special personal care should be taken in any cleanup operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services.

Contaminated area may be neutralised by washing with weak or dilute acid. Vinegar, citrus juice and most soft drinks may be suitable. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## SAFETY DATA SHEET

## Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 10000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

## Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Sodium hydroxide	2	peak

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

**Eye Protection:** Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.

**Skin Protection:** Because of the dangerous nature of this product, make sure that all skin areas are completely covered by impermeable gloves, overalls, hair covering, apron and face shield. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

## Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Pale yellow-green liquid.
<b>Odour:</b>	Slight chlorine odour.
<b>Boiling Point:</b>	Approximately 100°C at 100kPa.
<b>Freezing/Melting Point:</b>	Approximately 0°C.
<b>Volatiles:</b>	Water component.
<b>Vapour Pressure:</b>	2.37 kPa at 20°C (water vapour pressure).
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	1.2
<b>Water Solubility:</b>	Completely soluble in water.
<b>pH:</b>	Corrosive. pH 12.5 approx (1% in water)
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Coeff Oil/water Distribution:</b>	No data
<b>Autoignition temp:</b>	Not applicable - does not burn.

## Section 10 - Stability and Reactivity

**Reactivity:** Most strong alkalis and bases react with inorganic and organic acids to form salts. They can also react with some metals liberating hydrogen gas. These reactions may be rapid and sometimes liberate much heat.

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**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Protect this product from light.

**Incompatibilities:** acids, zinc, tin, aluminium and their alloys. Other materials reactive with strong alkalis.

**Fire Decomposition:** This product is likely to decompose only after heating to dryness, followed by further strong heating. Chlorine gas, other compounds of chlorine, sodium compounds. Small quantities only.

**Polymerisation:** This product will not undergo polymerisation reactions.

## Section 11 - Toxicological Information

### Local Effects:

**Target Organs:** eyes, skin

### Classification of Hazardous Ingredients

#### Ingredient

Sodium Hypochlorite

#### Risk Phrases

Conc>=10%(\*): C; R34; R31.

\* Available chlorine

## Section 12 - Ecological Information

Very toxic to aquatic organisms. Salts, acids and bases are typically diluted and neutralised when released to the environment in small quantities and so long term environmental effects are unlikely.

## Section 13 - Disposal Considerations

**Disposal:** This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by some means. If neither of these options is suitable in-house, contact a specialist waste disposal company.

## Section 14 - Transport Information

**Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.**

**UN Number:** 1791, HYPOCHLORITE SOLUTION

**Hazchem Code:** 2X

**Special Provisions:** 223

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

**Dangerous Goods Class:** Class 8, Corrosive Substances.

**Packaging Group:** III

**Packaging Method:** P001, IBC03, LP01

Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

## Section 15 - Regulatory Information

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations.

The following ingredients: Sodium hypochlorite (a chlorinating agent), sodium hydroxide are mentioned in the SUSMP.

## Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

### Acronyms:

**ADG Code**

Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition

**AICS**

Australian Inventory of Chemical Substances

**CAS Number**

Chemical Abstracts Service Registry Number

**Hazchem Code**

Emergency action code of numbers and letters that provide information to emergency services especially firefighters

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<b>IARC</b>	International Agency for Research on Cancer
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>NOS</b>	Not otherwise specified
<b>NTP</b>	National Toxicology Program (USA)
<b>R-Phrase</b>	Risk Phrase
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)  
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## **SAFETY DATA SHEET**