1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: SODIUM CHLORITE SOLUTIONS 25%-31%

Recommended Use of the Chemical: Sanitiser; biocide; fungicide; sporicide.

Supplier: Ixom Operations Pty Ltd
ABN: 51 600 546 512
Street Address: Level 8, 1 Nicholson Street
              East Melbourne Victoria 3002
              Australia

Telephone Number: +61 3 9906 3000
Emergency Telephone: 1 800 033 111 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the “Other Information” section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:
Acute Oral Toxicity - Category 4
Acute Dermal Toxicity - Category 3
Skin Corrosion - Sub-category 1B
Eye Damage - Category 1
Specific target organ toxicity (repeated exposure) - Category 2

The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety Regulations:
Acute Aquatic Toxicity - Category 1

SIGNAL WORD: DANGER

Hazard Statement(s):
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement(s):
Prevention:
P102 Keep out of reach of children.
P260 Do not breathe mist, vapours, spray.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
Response:
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).
P322 Specific measures (see First Aid Measures on Safety Data Sheet).
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P361 Take off immediately all contaminated clothing.
P363 Wash contaminated clothing before re-use.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/attention if you feel unwell.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

Other Hazards:
AUH032 Contact with acids liberates very toxic gas.

Poisons Schedule (SUSMP): S5 Caution.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Proportion</th>
<th>Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chlorite</td>
<td>7758-19-2</td>
<td>25-31%</td>
<td>H272 H301 H310</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>H314 H318 H373</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>1-6%</td>
<td></td>
</tr>
<tr>
<td>Non hazardous component(s)</td>
<td></td>
<td>to 100%</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation:
Remove victim from area of 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. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

Skin Contact:
If spilt on large areas of skin or hair, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water and soap until advised to stop by the Poisons Information Centre or a doctor.

Eye Contact:
Immediately wash in and around the eye area with large amounts of water for at least 15 minutes. Eyelids to be held apart. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport promptly to hospital or medical centre.
Safety Data Sheet

Ingestion:
Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:
Treat symptomatically. Can cause corneal burns. Delayed pulmonary oedema may result.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Not combustible, however, if material is involved in a fire use: Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Hazchem or Emergency Action Code: 2X

Specific hazards arising from the chemical:
Non-combustible material. Decomposes on heating emitting toxic fumes including those of chlorine.

Special protective equipment and precautions for fire-fighters:
Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
Shut off all possible sources of ignition. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Neutralise with sodium bisulfite or sodium thiosulfite (1.1 kilograms neutraliser per each estimated kilogram of spilled material). Collect and seal in properly labelled containers or drums for disposal. Do not return spilled material to original container.

7. HANDLING AND STORAGE

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

Precautions for safe handling:
Avoid skin and eye contact and breathing in vapour, mists and aerosols. Keep out of reach of children. Wash hands before breaks and at the end of the work day. Launder contaminated clothing before reuse. Eye wash facilities and emergency shower must be available when handling this product.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from foodstuffs. Do not allow material to dry out. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for decomposition product(s):

Product Name: SODIUM CHLORITE SOLUTIONS 25%-31%
Substance No: 000000017559

Issued: 13/10/2017
Version: 5
Chlorine: Peak Limitation = 3 mg/m³ (1 ppm)
Chlorine dioxide: 8hr TWA = 0.28 mg/m³ (0.1 ppm), 15 min STEL = 0.83 mg/m³ (0.3 ppm)

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

Peak Limitation - a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

These Workplace 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 workplace 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.

**Appropriate engineering controls:**
Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

**Individual protection measures, such as Personal Protective Equipment (PPE):**
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS.

Wear overalls, chemical goggles, face shield, elbow-length impervious gloves, splash apron or equivalent chemical impervious outer garment, and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

If determined by a risk assessment an inhalation risk exists, wear a suitable mist respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.
Physical state: Clear Liquid
Colour: Pale Yellow
Odour: Faint Chlorine - like
Solubility: Miscible in water.
Specific Gravity: 1.1-1.3 @25°C
Relative Vapour Density (air=1): 0.02 kg/m³
Vapour Pressure (20 °C): 23.7 mm Hg @25°C
Flash Point (°C): Not applicable
Flammability Limits (%): Not applicable
Autoignition Temperature (°C): Not applicable
Boiling Point/Range (°C): 100
Decomposition Point (°C): 180-200 (for dry sodium chlorite)
pH: >12

10. STABILITY AND REACTIVITY

Reactivity: Contact with acids liberates very toxic gas.
Chemical stability: Stable if stored and handled under recommended conditions.
Possibility of hazardous reactions: Reacts with acids liberating chlorine dioxide gas.
Conditions to avoid: Avoid contamination with foreign materials. Avoid exposure to heat, sources of ignition, and open flame. Do not allow product to dry out. Avoid UV-light and other radiation with high energy.
Incompatible materials: Incompatible with acids, chlorine containing materials, combustible materials, hypochlorites, metal powders, phosphorus, organic solvents, reducing agents, sulfur, sulfites.
Hazardous decomposition products: Chlorine. Oxides of sodium.

11. TOXICOLOGICAL INFORMATION

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 nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.
Eye contact: A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
Skin contact: Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.
Inhalation: Breathing in mists or aerosols may produce respiratory irritation.

Acute toxicity: No LD50 data available for the product. For the constituent Sodium chlorite:
Oral LD50 (rat): 165 mg/kg (1)
Inhalation LC50 (rat): 230 mg/m³/4 hrs (1)
Chronic effects: Available evidence from animal studies indicate that repeated or prolonged exposure to this material could result in effects on the reproductive system. (2) May cause damage to organs through prolonged or repeated exposure. Sodium chlorite is an IARC Group 3 carcinogen (not classifiable as to human carcinogenicity).

12. ECOLOGICAL INFORMATION

Ecotoxicity: Avoid contaminating waterways.

Persistence/degradability: The material is biodegradable.

Aquatic toxicity: Very toxic to aquatic organisms.

48hr EC50 (algae): 1.32 mg/L (3)
48hr EC50 (Daphnia magna): 0.0146 mg/L (3)
48hr LC50 (fish): 75 mg/L (3)

13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to Waste Management Authority. Dispose of material through a licensed waste contractor. Decontamination and destruction of containers should be considered.

14. TRANSPORT INFORMATION

Road and Rail Transport
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

UN No: 1908
Transport Hazard Class: 8 Corrosive
Packing Group: II
Proper Shipping Name or Technical Name: CHLORITE SOLUTION
Hazchem or Emergency Action Code: 2X

Marine Transport
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN No: 1908
Transport Hazard Class: 8 Corrosive
Packing Group: II
Proper Shipping Name or Technical Name: CHLORITE SOLUTION
IMDG EMS Fire: F-A
IMDG EMS Spill: S-B
Air Transport
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods
Regulations for transport by air; DANGEROUS GOODS.

UN No: 1908
Transport Hazard Class: 8 Corrosive
Packing Group: II
Proper Shipping Name or Technical Name: CHLORITE SOLUTION

15. REGULATORY INFORMATION

Classification:
This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

Classification of the chemical:
Acute Oral Toxicity - Category 4
Acute Dermal Toxicity - Category 3
Skin Corrosion - Sub-category 1B
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The following health/environmental hazard categories fall outside the scope of the Workplace Health and Safety
Regulations:
Acute Aquatic Toxicity - Category 1

Hazard Statement(s):
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.

Poisons Schedule (SUSMP): S5 Caution.

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

16. OTHER INFORMATION

(1) ‘Registry of Toxic Effects of Chemical Substances’. Ed. D. Sweet, US Dept. of Health & Human Services:
Cincinnati, 2017.
(2) Supplier Safety Data Sheet; 04/2011.
(3) Environmental Risk Management Authority (ERMA), New Zealand

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

Reason(s) for Issue:
5 Yearly Revised Primary SDS
Change in Hazardous Chemical Classification
This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd’s responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.