1. IDENTIFICATION

GHS Product Identifier
BLEACH

Company Name
HOSPECO PTY LTD

Address
17 Elizabeth Street Wetherill Park
NSW 2164 AUSTRALIA

Telephone/Fax Number
Tel: +61 2 9756 0055
Fax: +61 2 9756 0095

Emergency phone number
1800 638 556

Recommended use of the chemical and restrictions on use
Bleach and steriliser

2. HAZARD 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)
Eye Damage/Irritation: Category 1
Hazardous to the Aquatic Environment - Acute Hazard: Category 2
Skin Corrosion/Irritation: Category 1B

Signal Word (s)
DANGER

Hazard Statement (s)
AUH031 Contact with acids liberates toxic gas.
H314 Causes severe skin burns and eye damage.
H401 Toxic to aquatic life.

Pictogram (s)
Corrosion

Precautionary statement – Prevention
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.
Precautionary statement – Response
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P310 Immediately call a POISON CENTER or doctor/physician.
P363 Wash contaminated clothing before reuse.

Precautionary statement – Storage
P405 Store locked up.

Precautionary statement – Disposal
P501 Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite</td>
<td>7681-52-9</td>
<td>10-20 %</td>
</tr>
<tr>
<td>Ingredients determined not to be hazardous, including water.</td>
<td></td>
<td>Balance</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Inhalation
If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion
If swallowed, do NOT induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin
If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Wash gently and thoroughly with water and non-abrasive soap for 15 minutes. Ensure contaminated clothing is washed before re-use or discard. Seek immediate medical attention.

Eye contact
If in eyes, hold eyelids apart and flush the eye continuously with running water. 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
Eye wash fountain, safety shower and normal washroom facilities.

Advice to Doctor
Treat symptomatically.

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

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use appropriate fire extinguisher for surrounding environment.

Hazards from Combustion Products
Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including chlorine.

Specific Hazards Arising From The Chemical
This product is non combustible.

Hazchem Code
2X
Decomposition Temperature
Not available

Precautions in connection with Fire
Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
Evacuate all unprotected personnel. Do not allow contact with skin and eyes. Do not breathe mist/vapour. It is essential to wear self-contained breathing apparatus (S.C.B.A) and full personal protective equipment and clothing to prevent exposure. Avoid exposure to spillage by collecting the material using vacuum and transfer into suitable labelled containers for subsequent recycling or disposal. As a water based product, if spilt on electrical equipment the product will cause short-circuits. Dispose of waste according to applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Corrosive liquid. Attacks skin and eyes. Causes burns. Wear suitable protective clothing, gloves and eye/face protection when mixing and using. Avoid contact with eyes. Avoid contact with skin. Use in designated areas with adequate ventilation. Avoid breathing in vapours, mist or fumes. Keep containers closed when not in use. Ensure a high level of personal hygiene is maintained when using this product, that is, always wash hands after handling, and before eating, drinking, smoking or using the toilet facilities.

Conditions for safe storage, including any incompatibilities
Corrosive liquid. Store in a cool dry well-ventilated area. Store away from oxidising agents and bases/acids. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Provide a catch-tank in a bunded area. Store in original packages as approved by manufacturer. Ensure that storage conditions comply with applicable local and national regulations.
For information on the design of the storeroom, reference should be made to Australian Standard AS 3780-2008: The storage and handling of corrosive substances. Reference should also be made to all State and Federal regulations.

Storage Temperatures
>0°C- <93°C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values
No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Chlorine
TWA: 1 ppm, 3 mg/m³
Notes: Peak Limitation

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.
Peak Limitation: A ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.

Biological Limit Values
No biological limits allocated.

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

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapour/mist filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

**Eye Protection**

Safety glasses with full-face shield should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

**Hand Protection**

Wear gloves of impervious material such as rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

**Footwear**

Wear safety footwear. Final choice will vary according to individual circumstances. Reference should be made to AS/NZS 2210.1: 2010 Safety, protective and occupational footwear-Guide to selection, care and use.

**Body Protection**

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>Yellowish thin liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Yellowish</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Characteristic chlorine odour</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Melting Point</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Boiling Point</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Solubility in Water</strong></td>
<td>Freely soluble in water</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>1.20 + 0.01</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Vapour Pressure</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Vapour Density (Air=1)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Odour Threshold</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available</td>
</tr>
</tbody>
</table>
Partition Coefficient: n-octanol/water
Not available

Flash Point
Not applicable

Flammability
Non-combustible

Auto-Ignition Temperature
Not applicable

Flammable Limits - Lower
Not applicable

Flammable Limits - Upper
Not applicable

10. STABILITY AND REACTIVITY

Reactivity
Reacts with incompatibles

Chemical Stability
Stable under normal conditions of storage and handling.

Conditions to Avoid
Extremes of temperature and direct sunlight.

Incompatible materials
Acids

Hazardous Decomposition Products
Thermal decomposition may result in the release of toxic and/or irritating fumes and gases including chlorine.

Possibility of hazardous reactions
Contact with acids produces toxic fumes of chlorine.

Hazardous Polymerization
Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information
No toxicity data available for this material.

Ingestion
Ingestion of this product will cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.

Inhalation
Inhalation of mists or vapours will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary edema, pneumonitis and emphysema.

Skin
Causes burns. Corrosive to the skin. Skin contact can cause redness, itching, irritation, severe pain and chemical burns with resultant tissue destruction.

Eye
Causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness.

Respiratory sensitisation
Not expected to be a respiratory sensitiser.

Skin Sensitisation
Not expected to be a skin sensitisier.

Germ cell mutagenicity
Not considered to be a mutagenic hazard.
Carcinogenicity
Not considered to be a carcinogenic hazard.

Reproductive Toxicity
Not considered to be toxic to reproduction.

STOT-single exposure
Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure
Not expected to cause toxicity to a specific target organ.

Aspiration Hazard
Not expected to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxic to aquatic life.

Persistence and degradability
Not available

Mobility
Not available

Bioaccumulative Potential
Not available

Other Adverse Effects
Not available

Environmental Protection
Do not discharge this material into waterways, drains and sewers.

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.

14. TRANSPORT INFORMATION

Transport Information
Road and Rail:
This material is classified as Dangerous Goods Class 8 Corrosive Substances according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).
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 Substances
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.

Marine Transport (IMO/IMDG):
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
Class/Division: 8
UN No: 1760
Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (Contains Sodium hypochlorite)
Packing Group: II
EMS : F-A, S-B
Special Provisions: 274

Air Transport (ICAO/IATA):
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
Class/Division: 8
UN No: 1760
Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (Contains Sodium hypochlorite)
Packing Group: II
Packaging Instructions (passenger & cargo): 851
Packaging Instructions (cargo only): 855
Hazard Label: Corrosive
Special Provisions: A3, A803

U.N. Number
1760

UN proper shipping name
CORROSIVE LIQUID, N.O.S. (Contains Sodium hypochlorite)

Transport hazard class(es)
8

Packing Group
II

Hazchem Code
2X

IERG Number
37

IMDG Marine pollutant
No

Transport in Bulk
Not available

Special Precautions for User
Not available

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
Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule
Not Scheduled

16. OTHER INFORMATION

Date of preparation or last revision of SDS
SDS Created: December 2015

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, Safe work Australia.
American Conference of Industrial Hygienists (ACGIH).
Globally Harmonised System of classification and labelling of chemicals.

END OF SDS