1. IDENTIFICATION

GHS Product Identifier
ALKALINE PRIMARY BATTERY

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
Battery.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Not 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 Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Information on Composition
Sealed unit containing the following ingredients: Manganese dioxide, Potassium hydroxide, Zinc, Zinc oxide, Graphite and Steel

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredients determined not to be hazardous</td>
<td></td>
<td>100 %</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

Inhalation
Not considered a potential route of exposure for intact product, when used as intended. However, if the sealed unit is damaged and exposure occurs, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion
Not considered a potential route of exposure for intact product, when used as intended. However, if ingested, do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

Skin
Not considered a potential route of exposure for intact product, when used as intended. If the sealed unit is damaged and exposure occurs: Remove all contaminated clothing immediately. 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**
Not considered a potential route of exposure for intact product, when used as intended. If the sealed unit is damaged and exposure occurs: 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 and normal washroom facilities.

**Advice to Doctor**
Treat symptomatically

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

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**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 and gases.

**Specific Hazards Arising From The Chemical**
Not available

**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.

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**6. ACCIDENTAL RELEASE MEASURES**

**Emergency Procedures**
Wear appropriate personal protective equipment and clothing to prevent exposure. Collect the material and place into a suitable labelled container. Dispose of waste according to the 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.

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**7. HANDLING AND STORAGE**

**Precautions for Safe Handling**
Avoid exposure. Use only in a well ventilated area. Keep containers tightly closed. Prevent the build up of dusts, mists or vapours in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

**Conditions for safe storage, including any incompatibilities**
Store in a cool, dry, well-ventilated area away from sources of ignition, direct sunlight, strong oxidising agents and strong acids/bases. Keep out of reach of children. Elevated temperatures can result in shortened battery life. Protect against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Store in original packages as approved by manufacturer. Ensure that storage conditions comply with applicable local and national regulations.

**Storage Temperatures**
Store above freezing and <93°C.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Occupational exposure limit values**
No exposure value assigned for this material. However, the available exposure limits for ingredients are listed below:

**Potassium hydroxide**  
TWA: 2 mg/m³ (Peak limitation)

**Zinc oxide**  
TWA: 5 mg/m³ (fume), 10 mg/m³ (dust)  
STEL: 10 mg/m³ (fume)

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.  
STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.  
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**  
None required, when used as intended.

**Respiratory Protection**  
None required, when used as intended.

**Eye Protection**  
None required, when used as intended.

**Hand Protection**  
Wear gloves of impervious material. Rubber gloves suggested for repeated or prolonged product use. 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.

**Body Protection**  
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Encased cylindrical or rectangular shape article</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Odourless</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>Not applicable</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Vapour Pressure</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Vapour Density (Air=1)</strong></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Evaporation Rate
Not applicable

Odour Threshold
Not applicable

Viscosity
Not applicable

Partition Coefficient: n-octanol/water
Not applicable

Flash Point
Not applicable

Flammability
Non-flammable

Auto-Ignition Temperature
Not applicable

Flammable Limits - Lower
Not applicable

Flammable Limits - Upper
Not applicable

10. STABILITY AND REACTIVITY

Reactivity
Not available

Chemical Stability
Stable under normal conditions of use.

Conditions to Avoid
Heat, physical damage.

Incompatible materials
Strong acids/bases.

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

Hazardous Polymerization
Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information
No toxicity data available for this product.

Ingestion
Swallowing of the contents of this product can be harmful or irritating to the gastric tract causing nausea and vomiting.

Inhalation
Inhalation of vapours from an open battery may cause irritation of the respiratory system.

Skin
Contents of an open battery can be irritating or corrosive to skin. The symptoms may include redness, itching, swelling or burns.

Eye
Contents of an open battery can be severely irritating or corrosive to eyes. The symptoms may include redness, itching, blurred vision, tearing or burns. Can cause eye damage.

Respiratory sensitisation
Not expected to be a respiratory sensitisier.

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 through repeated or prolonged exposure.

Aspiration Hazard
Not expected to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No ecological data are available for this material.

Persistence and degradability
Not available

Mobility
Not available

Bioaccumulative Potential
Not available

Environmental Protection
Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal considerations
The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

U.N. Number
None Allocated

UN proper shipping name
None Allocated

Transport hazard class(es)
None Allocated

IMDG Marine pollutant
No

Transport in Bulk
Not available

Special Precautions for User
Not available
15. REGULATORY INFORMATION

Regulatory information
Not 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

Australia (AICS)
All components of this product are listed on the Inventory or exempted.

16. OTHER INFORMATION

Date of preparation or last revision of SDS
SDS Created: August 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

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