CLASSIFICATION OF MATERIAL

Classified as hazardous according to criteria of the National Occupational Health and Safety Commission (Australia)

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product: White King Concentrated Bleach

1.2 UN Proper Shipping Name: 1791 Hypochlorite Solution

1.3 Recommended Use: Household bleach

1.4 Supplier: Pental Products Pty Ltd

1.5 A.B.N: 68 103 213 467

1.6 Address: 48 Drummond Road, Shepparton, Victoria, 3630

1.7 Telephone Number: (03) 5820 5200 (Australia).

1.8 Facsimile: (03) 5820 5221 (Australia).

1.9 Emergency Telephone Numbers:
   (03) 5820 5200 (Australia: Weekdays 8.00am to 5.00pm)
   Poisons Information Centre Australia: 13 1126
   Poisons Information Centre New Zealand: 0800 764 766

2. HAZARDS IDENTIFICATION


2.2 Risk Phrase(s):
   R31 Contact with acids liberates toxic gas.
   R34 Causes burns.

2.3 Safety Phrases:
   S2 Keep out of reach of children.
   S7 Keep container tightly closed.
   S23 Do not breathe vapour.
   S24/25 Avoid contact with skin and eyes.
   S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
   S45 In case of accident or if you feel unwell seek medical advise immediately (show the label where possible).

3. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Proportion %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride</td>
<td>7647-14-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Sodium Hypochlorite</td>
<td>7681-52-9</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Coco Dimethyl Amine Oxide</td>
<td>70592-80-2</td>
<td>&lt; 1.5</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>&lt; 1.3</td>
</tr>
<tr>
<td>Sodium Laureth Sulphate</td>
<td>68585-34-2</td>
<td>&lt; 1</td>
</tr>
<tr>
<td>Fragrance</td>
<td>Proprietary</td>
<td>&lt; 0.1</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Balance</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

4.1 Description of Necessary First Aid Measures

**Ingestion:**
Do not induce vomiting. Immediately remove product from the mouth and wash out mouth with plenty of water. Obtain immediate medical attention.

**Eye:**
Immediately hold the eyes open and wash with fresh running water. Take care not to rinse contaminated water into non-affected eye. Ensure complete irrigation of the eye by keeping the eyelids apart and away from the eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or at least 15 minutes. Obtain immediate medical attention.

**Skin:**
Remove contaminated clothing and wash skin gently and thoroughly with water and non-abrasive soap. Ensure contaminated clothing is washed before re-use, or discard. Obtain medical attention.

**Inhalation:**
Remove from source of exposure. Ensure airways are clear and have a qualified person give oxygen through a face mask if breathing is difficult. Obtain immediate medical attention.

4.2 Medical Attention and Special Treatment

**First Aid Facilities:**
An eye wash fountain, safety shower and a general washing facility should be available immediately adjacent to the work area.

**Comments:**
Treat according to person’s condition and specifics of exposure.

**Advice to Doctor:**
Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Suitable Extinguishing Media:
Use appropriate fire extinguisher for surrounding environment.

5.2 Hazards From Combustion Products:
Non-flammable. Containers may rupture or explode under fire conditions. This material may decompose on heating producing corrosive and/or toxic fumes.

5.3 Special Protective Precautions and Equipment For Fire Fighters:
Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool. Self-containing breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.

5.4 Hazchem Code:
2X

6. ACCIDENTAL RELEASE MEASURES

6.1 Emergency Procedures:
Slippery when spilt, avoid accidents. Increase ventilation. Evacuate all unprotected personnel. Use full protective clothing and equipment to minimise exposure. Transfer material to a suitable, labelled container for recycling or disposal. Wash contaminated surfaces well with water. If a large quantity of this material enters the environment, contact the relevant regulatory authorities. Dispose of waste according to Federal, E.P.A., State and Local regulations.
6.2 Methods and Materials for Containment and Clean Up: Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protective equipment recommendations described in this MSDS. Minor Spills: Contain spill. Place inert absorbent material onto spillage. Mop up material and place into clean, dry, labelled steel containers and close lids tightly. Hose down residues or minor spills with excess water. Laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which laws and regulations are applicable.

7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Use in a well ventilated area. Do not store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in spray, mists or vapours. Avoid contact with skin and eyes. Any exposure without protection should be prevented. Do not take internally. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.

7.2 Conditions for Safe Storage: Store in a cool, dry, well ventilated area, away from heat and out of direct sunlight. Keep well closed when not in use and securely sealed against physical damage. Inspect regularly for deficiencies, such as damage or leaks.

7.3 Storage Regulations Reference should be made to Australian Standard AS 3780, The storage and handling of corrosive substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 National Exposure Standards: No value is assigned for this specific material by the National Occupational Health and Safety Commission (Australia). However, the available exposure limits for the ingredient Sodium Hydroxide as listed in the “Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC: 1003 (1995)]” published by the National Occupational Health and Safety Commission (Australia) are as follows:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>Time Weighed Average (TWA): 2 mg/m³ (Peak limitation) and - ppm.</td>
</tr>
<tr>
<td>(CAS No. 1310-73-2)</td>
<td>Short Term Exposure Limit (STEL): - mg/m³ and - ppm.</td>
</tr>
</tbody>
</table>

8.2 Biological Limit Values: No biological limit allocated.

8.3 Engineering Controls: Ensure adequate ventilation. If mists or vapours are produced local exhaust ventilation should be used.

8.4 Personal Protective Equipment: Respiratory Domestic quantities require no special equipment with normal careful use. When handling bulk quantities. Avoid breathing mists or vapours. Where ventilation is inadequate and mists or vapours are generated, respiratory protective equipment should be used suitable for protecting against airborne contaminants. Reference should be made to Australian Standards: AS/NZS 1715 Selection, use and maintenance of respiratory protective devices; and AS/NZS 1716 Respiratory protective devices.
Eye

Wear safety glasses or goggles or face shield. Do not wear contact lenses. Ensure eyewash is available. Eye protection should conform with AS/NZS 1337 Eye protectors for industrial applications.

Skin

Wear gloves of impervious material. Refer to AS/NZS 2161.1 Occupational protective gloves – Selection use and maintenance.

Wear appropriate clothing, including a chemical resistant apron, where clothing is likely to be contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Physical Description / Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, yellow liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Hypochlorite bleach odour</td>
</tr>
<tr>
<td>pH</td>
<td>&gt; 11.5</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Very slightly thickened</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point (°C)</td>
<td>100°C</td>
</tr>
<tr>
<td>Freezing Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility In Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Specific Gravity (25°C)</td>
<td>1.09</td>
</tr>
<tr>
<td>Flash Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non-flammable.</td>
</tr>
<tr>
<td>Lower Explosive Limit (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Explosive Limit (%)</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temp (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temp (°C)</td>
<td>Not available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

10.1 Chemical Stability:
The product is stable under normal ambient conditions of temperature and pressure.

10.2 Conditions To Avoid:
Sparks, flames and other ignition sources. Direct sunlight and heat.

10.3 Incompatible Materials:
Acids.

10.4 Hazardous Decomposition Products:
Thermal decomposition may result in the release of toxic and/or irritating fumes, including hydrogen chloride and chlorine.

10.5 Hazardous Reactions:
The product will react with acids to produce chlorine gas. Hazardous polymerisation will not occur.
11. TOXICOLOGICAL INFORMATION

11.1 Likely Route of Exposure:  [X] Inhalation  [X] Skin contact  [ ] Ingestion

11.2 Health Effects From Likely Route of Exposure:

**Acute**
- **Ingestion:** Ingestion of this product will cause nausea, vomiting, abdominal pain and chemical burns to the mouth, throat and stomach.
- **Eye:** May produce severe burns. Attacks eyes. Eye contact will cause stinging, blurring, lachrymation, severe pain and possible permanent corneal damage, if not treated immediately.
- **Skin:** Will cause burns in contact with the skin. Attacks skin. Effects may include redness, itching, blistering, severe lesions, pain, chemical burns and possible permanent tissue damage (scarring).
- **Inhalation:** Inhalation of mists or vapours will result in respiratory irritation and possible harmful corrosive effects including lesions of the nasal septum, pulmonary oedema, pneumonitis and emphysema.

**Chronic**
- **Ingestion:** Not available.
- **Skin:** Prolonged or repeated contact with this material may result in skin irritation leading to dermatitis.
- **Inhalation:** Not available.

11.3 Other Information: No known applicable information.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity: No data available.

12.2 Bioaccumulation: No information available.

12.3 Environmental Fate and Distribution: No information available.

12.4 Fate and Effects in Waste Water Treatment Plants: No information available.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal Method: Reclaim or dispose of in accordance with local, state and federal regulations.

13.2 Special Precautions for Landfill or Incineration: Performed in accordance with the Hazardous Substances (Disposal) Regulations 2001.

14. TRANSPORTATION INFORMATION

14.1 UN Number: 1791

14.2 UN Proper Shipping Name: Hypochlorite Solution

14.3 Dangerous Goods Class: 8

14.4 Packing Group: III

14.5 Special Precautions for User: Corrosive

14.6 HAZCHEM Code: 2X
Additional Shipping Information: Classified as a Class 8 (Corrosive) Dangerous Good by the Australian Code for Transport of Dangerous Goods by Road or Rail. Dangerous Goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following: Class 1, Class 4.3, Class 5.1, Class 5.2, Class 6 and Class 7. Class 8 (Corrosive) Dangerous Goods are also incompatible with food and food packaging in any quantity.

15. REGULATORY INFORMATION

15.1 SUSDP Poisons Schedule: S5
15.2 Prohibition / Licensing Requirements: There are no applicable prohibition or notification / licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.
15.3 Industrial Chemicals (Notification and Assessment) Act 1989: All ingredients are listed on or exempt from the Australia Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

16.1 Issue Date: 18th January 2011
16.2 Contact Points: Title / Position: Research & Development Manager Telephone: (03) 5820 5204 (Australia: Weekdays 8.00am to 5.00pm) E-mail: enquiries@pental.com.au
16.3 After Hours Emergency Medical Assistance: Poisons Information Centre Telephone: Australia: 13 1126 New Zealand: 0800 764 766

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