1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ALUMINIUM CHLOROHYDRATE 50% SOLUTION

Recommended use of the chemical and restrictions on use: Cosmetic ingredient.

Supplier: Bronson & Jacobs Pty Ltd
ABN: 81 000 063 249
Street Address: 70 Marple Avenue Villawood NSW 2163 Australia

Emergency Telephone: 1 800 033 111 (ALL HOURS)

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION/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>Aluminium chloride hydroxide</td>
<td>12042-91-0</td>
<td>45-50%</td>
<td>-</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>50-55%</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. Seek medical advice if effects persist.

Skin Contact:
If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If irritation occurs seek medical advice.
Eye Contact:
If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

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

Indication of immediate medical attention and special treatment needed:
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Not combustible, however, if material is involved in a fire use: Extinguishing media appropriate to surrounding fire conditions.

Specific hazards arising from the substance or mixture:
Not combustible, however following evaporation of the water component of the material, the residual material can burn if ignited. On burning will emit toxic fumes, including those of hydrogen chloride, other chlorine compounds and oxides of aluminium.

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 vapour or products of combustion. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
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). Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:
Avoid skin and eye contact and breathing in vapour, mists and aerosols.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated place and out of direct sunlight. 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, supplier recommended Workplace Exposure Standard(s):
Aluminium, soluble salts (as Al): 8hr TWA = 2 mg/m³

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

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.

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 to maintain air concentrations below Workplace Exposure Standards. If inhalation risk exists: Use with local exhaust ventilation or while wearing organic vapour/particulate respirator. Keep containers closed when not in use.

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, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. If determined by a risk assessment an inhalation risk exists, wear an organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>Clear Liquid</td>
</tr>
<tr>
<td>Colour:</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour:</td>
<td>Odourless</td>
</tr>
<tr>
<td>Odour Threshold:</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Soluble in water.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.33 - 1.35</td>
</tr>
<tr>
<td>Relative Vapour Density (air=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Pressure (20 °C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability Limits (%):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition Temperature (°C):</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Product Name: ALUMINIUM CHLOROHYDRATE 50% SOLUTION
Substance No: 000000031091
Issued: 25/08/2010 12:40:08 PM
Version: 2
Safety Data Sheet

**Melting Point/Range (°C):** Not available
**Boiling Point/Range (°C):** 110 - 115
**pH:** 4.0 - 4.4 (30% w/w of 50% solution)
**Viscosity:** Not available
**Evaporation Rate:** 50-55% (water)
**Partition Coefficient:** Not available

### 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under normal conditions of use.
**Possibility of hazardous reactions:** None known.
**Conditions to avoid:** Avoid exposure to heat.
**Incompatible materials:** None known.
**Hazardous decomposition products:** Hydrogen chloride. Chlorine compounds. Oxides of aluminium.

### 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:** No adverse effects expected, however, large amounts may cause nausea and vomiting.
**Eye contact:** May be an eye irritant.
**Skin contact:** Contact with skin may result in irritation. Repeated exposure may cause skin dryness or cracking.
**Inhalation:** Breathing in vapour, mists or aerosols may produce respiratory irritation.

**Acute toxicity:** No LD50 data available for the product.

**Chronic effects:** No information available for the product.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Avoid contaminating waterways.

**Persistence/degradability:** The material is not biodegradable. (1)

### 13. DISPOSAL CONSIDERATIONS

**Disposal methods:**
Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations.

*Product Name:* ALUMINIUM CHLOROHYDRATE 50% SOLUTION
*Substance No:* 000000031091
*Issued:* 25/08/2010 12:40:08 PM
*Version:* 2
14. TRANSPORT INFORMATION

Road and Rail Transport
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine Transport
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

Air Transport
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

15. REGULATORY INFORMATION

Classification:
Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule (SUSMP): None allocated.

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

16. OTHER INFORMATION

(1) Supplier Safety Data Sheet; 02/ 2008.

This safety data sheet has been prepared by Orica Toxicology & SDS Services.

Reason(s) for Issue:
5 Yearly Revised Primary SDS
Addition of PPE pictogram(s)
Minor Text Changes
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 Bronson & Jacobs 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 Bronson & Jacobs representative or Bronson & Jacobs Pty Ltd at the contact details on page 1.

Bronson & Jacobs 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.

Bronson and Jacobs incorporating the businesses of Woods and Woods and Keith Harris.