1. Identification of the material and supplier

Trade name of product : ACIDBLEND H330
ADG : HYDROCHLORIC ACID solution
Supplier : ECOLAB PTY LTD (A.B.N. 59 000 449 990)
  2 Drake Avenue, Macquarie Park NSW 2113
  Customer Service phone: 1 800 022 002
  Free Fax Number: 1 800 655 679
Emergency telephone number : 1 800 124 170
Material uses : Additive

Product dilution information : Not applicable

Date of issue : 20 December 2012

2. Hazards identification

Statement of hazardous/dangerous nature : Classified as hazardous according to the criteria of Safe Work Australia and classified as dangerous goods according to the ADG Code.
Classification : C - Corrosive
Risk phrases : R34- Causes burns.
  R37- Irritating to respiratory system.
Safety phrases : S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  S28- After contact with skin, wash immediately with plenty of water.
  S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
  S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Product AS SOLD

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS number</th>
<th>Concentration % (w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrochloric acid</td>
<td>7647-01-0</td>
<td>30 - 60%</td>
</tr>
</tbody>
</table>

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

Product AT USE DILUTION

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS number</th>
<th>Concentration % (w/w)</th>
</tr>
</thead>
</table>

Product is sold ready to use.

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

3. Composition/information on ingredients
4. First-aid measures

**Eye contact**
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin contact**
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Inhalation**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Ingestion**
Do not induce vomiting. Rinse mouth; then drink one or two large glasses of water. Contact a doctor or a Poisons Information Centre (Phone: 13 11 26). Never give anything by mouth to an unconscious person. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

**Notes to physician**
Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.

5. Fire-fighting measures

**Hazchem code**
2R

**Extinguishing media**
Use an extinguishing agent suitable for the surrounding fire.

**Fire-fighting media and instructions**
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Fire/explosion hazards**
No specific hazard.

**Special protective equipment for fire-fighters**
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Hazardous thermal decomposition products**
Decomposition products may include the following materials: halogenated compounds.

6. Accidental release measures

**Personal precautions**
Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

**Environmental precautions**
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods for cleaning up**
Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and
6. Accidental release measures

place in container for disposal according to local regulations (see section 13). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling: Do not add water directly to product. Slowly stir product into water. Avoid breathing vapours, spray or mists. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure controls/personal protection

**Ingredient name** | **Exposure limits**
--- | ---
hydrochloric acid | Safe Work Australia (Australia, 8/2005). PEAK: 7.5 mg/m³ 15 minute(s). PEAK: 5 ppm 15 minute(s).

**Engineering measures**: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Personal protection**

- **Eyes**: Wear chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.
- **Hands**: Use chemical-resistant, impervious gloves. Recommended: Elbow length PVC gloves.
- **Respiratory**: If ventilation is inadequate, use respirator that will protect against organic vapour and dust/mist. Disposable particulate mask. Respiratory protection should conform to AS/NZS 1715 and AS/NZS 1716.
- **Skin**: Wear synthetic apron, other protective equipment as necessary to prevent skin contact.
- **Hygiene measures**: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
9. Physical and chemical properties

**Product AS SOLD**
- **Physical state**: Liquid.
- **Colour**: Colourless to light yellow
- **Odour**: Pungent
- **pH**: 0.5 to 1.5 [Conc. (% w/w): 100%]
- **Flash point**: Product does not support combustion.
- **Boiling point**: 100°C (212°F)
- **Relative density**: 1.12 to 1.2
- **Solubility**: Easily soluble in the following materials: cold water and hot water.

**Product AT USE DILUTION**
- **Product is sold ready to use.**

10. Stability and reactivity

**Product AS SOLD**
- **Stability**: The product is stable.
- **Conditions to avoid**: None identified.
- **Materials to avoid**: Highly reactive or incompatible with the following materials: metals and alkalis. Reactive or incompatible with the following materials: oxidizing materials. Do not mix with bleach or other chlorinated products - will cause chlorine gas.
- **Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- **Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

**Potential acute health effects**
- **Inhalation**: Irritating to respiratory system.
- **Ingestion**: May cause burns to mouth, throat and stomach.
- **Skin contact**: Corrosive to the skin. Causes burns.
- **Eye contact**: Corrosive to eyes. Causes burns.

**Product AT USE DILUTION**
- **Product is sold ready to use.**

**Potential chronic health effects**
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Reproductive toxicity**: No known significant effects or critical hazards.

12. Ecological information

**Product AS SOLD**
- **Ecotoxicity data**: Not available.
- **Persistence/degradability**: Not available.
- **Mobility**: Not available.
- **Other adverse effects**: No known significant effects or critical hazards.

**Product AT USE DILUTION**
- **Ecotoxicity data**: Not available.
- **Persistence/degradability**: Not available.
- **Mobility**: Not available.
- **Other adverse effects**: No known significant effects or critical hazards.

13. Disposal considerations

**Product AS SOLD**
- **Product is sold ready to use.**

**Product AT USE DILUTION**
- **Product is sold ready to use.**
13. Disposal considerations

Methods of disposal: The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Product is sold ready to use.

14. Transport information

Product AS SOLD

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>Packing group</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADG</td>
<td>UN1789</td>
<td>HYDROCHLORIC ACID solution</td>
<td>8</td>
<td>II</td>
<td>Hazchem code 2R</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Initial emergency response guide 40</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN1789</td>
<td>HYDROCHLORIC ACID solution</td>
<td>8</td>
<td>II</td>
<td>Emergency schedules (EmS) F-A, S-B</td>
</tr>
</tbody>
</table>

15. Regulatory information

Product AS SOLD

AU Classification: Classified as hazardous according to the criteria of Safe Work Australia and classified as dangerous goods according to the ADG Code.
C - Corrosive
R34- Causes burns.
R37- Irritating to respiratory system.

Australia inventory (AICS): All substances are listed on AICS or exempt.

Standard for the Uniform Scheduling of Medicines and Poisons
S6

Control of Scheduled Carcinogenic Substances

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>No listed substance</td>
<td></td>
</tr>
</tbody>
</table>
16. Other information

Prepared by: Regulatory Affairs
Date of previous issue: 16-August-2011

References:
- ADG Code - Australian Transport of Dangerous Goods
- Adopted National Exposure Standard for Atmospheric Contaminants in the Occupational Environment
- Approved Criteria for Classifying Hazardous Substances
- List of Designated Hazardous Substances
- National Code of Practice for the Labelling of Workplace Substances
- National Code of Practice for the Preparation of Material Safety Data Sheets
- National Model Regulations for the Control of Scheduled Carcinogenic Substances
- National Model Regulations for the Control of Workplace Hazardous Substances
- Standard for the Uniform Scheduling of Medicines and Poisons

Disclaimer
The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.