Section 1 - Identification of the Material and Supplier

Chemical nature: Robenidine hydrochloride in a calcium sulfate carrier.
Trade Name: Cycostat 66G Coccidiostat
Product Use: A premix for animal feeds
Creation Date: April, 2011
This version issued: April, 2011 and is valid for 5 years from this date.

Section 2 - Hazards Identification

Statement of Hazardous Nature
This product is classified as: N, Dangerous to the environment. Not classified as hazardous according to the criteria of SWA.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R51/53. Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment.

Safety Phrases: S22, S61, S24/25. Do not breathe dust. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes.

SUSMP Classification: None allocated.
ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.
UN Number: None allocated.

Emergency Overview

Physical Description & colour: Greyish, fine or granular, free-flowing powder.
Odour: Almost odourless.
Major Health Hazards: no significant risk factors have been found for this product.

Potential Health Effects

Inhalation:
Short term exposure: Dusts may be irritating to the upper respiratory system with wheezing, coughing and difficulty breathing.
Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:
Short term exposure: May have a degreasing effect on the skin. May cause irritation.
Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:
Short term exposure: This product is likely to be mechanically irritating. If exposure is minor or brief, no long term effects should result. However, if material is not removed promptly, scratches to surface of the eye may result with long term consequences.
Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:
Short term exposure: Significant oral exposure is considered to be unlikely. Likely to cause gastric upset, nausea, vomiting and diarrhoea. Ingestion may lead to electrolyte disturbances and calcium imbalance. Other symptoms may include headache, dizziness, drowsiness, fatigue. Very large doses may cause blockage of the digestive system.
Long Term exposure: No data for health effects associated with long term ingestion.
Carcinogen Status:
SWA: No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc,%</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robenidine as the hydrochloride</td>
<td>25875-50-7</td>
<td>66g/kg</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Calcium sulfate dihydrate</td>
<td>10101-41-4</td>
<td>&gt;60</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td>secret</td>
<td>to 100</td>
<td>not set</td>
<td>not set</td>
</tr>
</tbody>
</table>

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:
You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 131 126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.
Skin Contact: Gently brush away excess particles. Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.
Eye Contact: Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water until the particles are removed, while holding the eyelid(s) open. Obtain medical attention if irritation persists, or if particles are lodged in surface of the eye(s). Take special care if exposed person is wearing contact lenses.
Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.
Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire.
Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials.
Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.
Flash point: Does not burn.
Upper Flammability Limit: Does not burn.
Lower Flammability Limit: Does not burn.
Autoignition temperature: Not applicable - does not burn.
Flammability Class: Does not burn.

Section 6 - Accidental Release Measures

Accidental release: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include cotton, rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles eg silica & asbestos.
Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

### Section 7 - Handling and Storage

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under “Storage” should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under “Incompatibilities” in Section 10.

### Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

- Respiratory equipment: AS/NZS 1715
- Protective Gloves: AS 2161, AS1336 and AS/NZS 1337
- Occupational Protective Clothing: AS/NZS 4501
- Industrial Eye Protection: AS1336, AS/NZS 1337
- Occupational Protective Footwear: AS/NZS2210

**SWA Exposure limits**

<table>
<thead>
<tr>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
</table>

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

**Skin Protection:** The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: cotton, rubber, PVC.

**Respirator:** If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.

### Section 9 - Physical and Chemical Properties:

**Physical Description & colour:** Greyish, fine or granular, free-flowing powder. Slightly hygroscopic, may absorb moisture from the air.

**Odour:** Almost odourless.

**Boiling Point:** Not applicable.

**Freezing/Melting Point:** No specific melting point.

**Volatiles:** No specific data. Expected to be low at 100°C.

**Vapour Pressure:** Nil at normal ambient temperatures.

**Vapour Density:** Not applicable.

**Specific Gravity:** No data.

**Water Solubility:** No data.

**pH:** 5.0-7.5

**Volatility:** Nil at normal ambient temperatures.

**Odour Threshold:** No data.

**Evaporation Rate:** Not applicable.

**Coeff Oil/water distribution:** No data

**Viscosity:** Not applicable.

**Autoignition temp:** Not applicable - does not burn.
Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: acids, bases, oxidising agents. May be sensitive to heat, light and moisture.

Fire Decomposition: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and smoke. Water is also formed. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. May form hydrogen chloride gas, other compounds of chlorine. Calcium compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Target Organs: May affect the liver and blood.
Repeated exposure may lead to irritation of the nose, sneezing, tear formation, excessive fluid secretion and possible risk of pneumonia.

Classification of Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.</td>
<td></td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

Toxic to aquatic organisms, may cause long-term adverse effects to the aquatic environment. This product is not readily biodegradable. Readily transported by running water.

Fish: LC_{50} guppy (*Poecilia reticulata*): 0.2mg/L LC_{50} rainbow trout (*Oncorhynchus mykiss*): 0.075mg/L
Algae: EC_{50} Green algae 0.56mg/L Daphnia: EC_{50} 0.056mg/L

Section 13 - Disposal Considerations

Disposal: This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Unsuitable for incineration. May be unsuitable for some landfill sites.

Section 14 - Transport Information

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.
The following ingredient: Robenidine as the hydrochloride, is mentioned in the SUSMP.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

- **ADG Code**: Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
- **AICS**: Australian Inventory of Chemical Substances
- **SWA**: Safe Work Australia, formerly ASCC and NOHSC
- **CAS number**: Chemical Abstracts Service Registry Number
- **Hazchem Code**: Emergency action code of numbers and letters that provide information to emergency services especially firefighters
- **IARC**: International Agency for Research on Cancer
- **NOS**: Not otherwise specified
- **NTP**: National Toxicology Program (USA)
- **R-Phrase**: Risk Phrase
- **SUSMP**: Standard for the Uniform Scheduling of Medicines & Poisons
- **UN Number**: United Nations Number
If ineffective: 

Dial Poisons Information Centre 
(131 126 from anywhere in Australia)

Please read all labels carefully before using product.

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