## 1. Identification of the Substance/Mixture and Supplier.

<table>
<thead>
<tr>
<th>Product name:</th>
<th>Bayer Copper Capsules 4/5/10/12/20/24/30/36 grams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>For the treatment and prevention of copper deficiency in cattle, deer and sheep.</td>
</tr>
<tr>
<td>ERMA approval:</td>
<td>HSR002394</td>
</tr>
<tr>
<td>Company:</td>
<td>Bayer New Zealand Limited, 3 Argus Place, Glenfield, Auckland, New Zealand.</td>
</tr>
<tr>
<td>Telephone:</td>
<td>0800 652 488</td>
</tr>
<tr>
<td>Facsimile:</td>
<td>0800 229 838</td>
</tr>
<tr>
<td>Emergency telephone:</td>
<td>0800 734 607 Ixom SH&amp;E Shared services (24hr)</td>
</tr>
</tbody>
</table>

## 2. Hazards Identification.

### Hazardous Status:
Classified as hazardous according to the criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

### HSNO Classification:
6.1E(oral), 6.4A, 6.9B, 9.1A

### Signal Word:
WARNING

### HAZARD STATEMENTS
- H303 May be harmful if swallowed.
- H319 Causes serious eye irritation.
- H373 May cause damage to liver and kidneys through prolonged or repeated exposure.
- H410 Very toxic to aquatic life with long lasting effects.

### PREVENTION STATEMENTS
- P102 Keep out of reach of children.
- P103 Read label before use.
- P260 Do not breathe dust.
- P264 Wash thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

### RESPONSE STATEMENTS
- P101 If medical advice is needed, have product container or label at hand.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P391 Collect spillage.

### STORAGE STATEMENTS – N/A

### DISPOSAL STATEMENTS
- P501 Do not let this product enter the environment. Do not dispose of in waterways or sewers. Dispose of this material and its container as hazardous waste, via a licensed facility. See local council for disposal/recycling information.
GHS DIAMONDS

3. Composition/Information on Ingredients.

<table>
<thead>
<tr>
<th>Chemical Entity</th>
<th>CAS No</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper oxide</td>
<td>1317-38-0</td>
<td>80-100%</td>
</tr>
</tbody>
</table>

4. First Aid Measures.

General Information: Remove victim from contaminated area. If there is a risk of unconsciousness, position and transport in a stable lateral position. Immediately remove all contaminated clothing, including footwear.

Skin Contact: Wash affected areas thoroughly with soap and water for at least 15 minutes. Seek medical attention if irritation persists. Take container / label or MSDS for identification.

Eye Contact: Due to the physical shape of this material, it is important that the eyes are NOT rubbed if any particles should enter the eye. Rinse cautiously with water for several minutes. Remove contact lenses if present and able to do. Continue rinsing. Seek medical advice if irritation persists.

Ingestion: If quantity has been ingested seek medical assistance.

Further information: Contact the National Poisons Centre in Dunedin, PO Box 913, Dunedin. Phone 0800 764 766, 0800 POISON.

5. Fire-Fighting Measures.

Extinguishing media and methods: Sprayed water jet, dry chemical powder, BCF, CO₂ and sand.

Recommended protective clothing: Fire fighters should wear self contained breathing apparatus in enclosed areas. Fight fire in the early stages if it is safe to do so. Make provisions to contain fire fighting water.


Spill and leak procedure: Shovel up spilled material and seal in plastic bags. Spilled material may be vacuumed, providing that the machine used is fitted with efficient filters. Any Small remaining spillage may be safely hosed away. Dispose of collected material in accordance with relevant local and national legislation.

Protective Equipment: Wear full protective equipment.

7. Handling and Storage.

Handling: Only handle under local ventilation hood. If this is not available wear a dusk mask. Wear overalls, goggles and gloves when using this material to reduce exposure. Read Label before use.

Storage: Store in a cool dry place below 25°C in original container. Store away from concentrated acids. Keep container tightly closed. Keep out of
reach of children. Keep locked away so that unauthorised persons do not have access. Keep away from food, drink and animal feeding stuffs.

8. Exposure Control/Personal Protection

Engineering measures: Use in well ventilated area
Respiratory Protection: Dust mask should be worn if in non ventilated area.
Hand Protection: Protective gloves for chemical use.
Eye Protection: Goggles should be worn.
Hygiene measures: Keep the place of work clean. Avoid contact with product. Keep working clothes separate. Change badly soiled or soaked clothing.

9. Physical and Chemical Properties

Form: Capsule
Colour: Grey-black needles in a colour coded gelatin capsule.
Odour: None
Boiling Point: > 1000 °C
Solubility in water: Insoluble
pH: Approx 7

10. Stability and Reactivity

Chemical stability: Stable
Conditions to avoid: Concentrated acids.

11. Toxicological Information

Skin irritant: Non irritant.
Eye irritant: Irritant.
Other: Copper(II) sulfate
The critical study is that of Hébert et al. (1993) which is described here. In comprehensive 90-day studies in both rats and mice (Hébert et al., 1993), in which copper(II) sulfate pentahydrate was administered in the feed at up to 8000 mg/kg in rats (up to 138 mg Cu/kg body weight per day) and up to 16 000 mg/kg in mice (up to around 1000 mg Cu/kg body weight per day), there were no overt signs of toxicity other than a dose-related reduction in growth (statistically significant in male and female rats from 67 and 138 mg Cu/kg body weight per day, respectively, and in male and female mice from 97 and 267 mg Cu/kg body weight per day). Microscopic examination of the tissues revealed hyperplasia and hyperkeratosis in the forestomach in both species (from 34 mg Cu/kg body weight per day in rats and from 187-267 mg Cu/kg body weight per day in mice), and liver and kidney effects in the rats only (from 67 mg Cu/kg body weight per day). In the rats, iron levels were reduced in the spleen, and haematological changes indicative of microcytic anaemia were observed at 34 mg Cu/kg body weight per day and higher. The NOEL was 17 mg Cu/kg body weight per day in rats, and 44 and 126 mg Cu/kg body weight per day in male and female mice, respectively. The liver and kidney effects observed in the rats in this study included inflammation of the liver and degeneration of the kidney tubule epithelium, and were similar to those found at higher doses (> 100 mg Cu/kg body weight per day) in more

12. Ecological Information

Daphnia magna (Water flea)  
CuO = 80% EC50 48 hours - 0.011 - 0.039 mg/L  

Rainbow trout  
LC50 96 hours - 25.4 ppm (= 25.4 mg/l)  
Rapidly Degradable: ND


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14. Transportation Information.

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S.(copper oxide)  
UN Number: 3077  
Hazard Class: 9  
Hazchem Code: 2Z  
Packing Group: III  
Flashpoint °C N/A  
Marine pollutant: Yes  
Hazardous substances regulations: Maximum quantity per package permitted on passenger service vehicles 3.0kg

15. Regulatory Information.

ACVM Number(s): A004943, A005143, A007143, A007144, A007788, A007789, A007790, A007791  
HSNO Approval Number: HSR002394  
HSNO Classification  
6.1E Acutely Toxic Substances.  
6.4A Substances that are Irritating to the Eye.  
6.9B Substances that are Harmful to Human Target Organs or Systems.  
9.1A Substances that are Very Harmful in the Aquatic Environment.
Controls for hazardous substances:
No tracking or approved handler required for this hazardous substance.

- Level 2 Emergency Management Information required when >3.0kg is present in a workplace.
- Level 3 Emergency Management Plans required when > 100kg is present in a workplace.
- When an excess of 100kg is stored, signage is required for ecotoxic substance.

Controls of hazardous substances are based upon current knowledge. Where multiple chemicals are stored, controls will take into account aggregate quantities. Contact a WorkSafe NZ Approved Test Certifier for further information and guidance.

16. Other Information.

HSNO – Hazardous Substances and New Organisms Act

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance of the product.