1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: CEREAL PLUS ZINC LIQUID FERTILISER
Other Names: Liquid fertiliser, Fluid fertiliser, Solution fertiliser
Uses: Liquid fertiliser
Chemical Family: No Data Available
Chemical Formula: No Data Available
Chemical Name: No Data Available
Product Description: No Data Available

Contact Information:
Australia
Rural Liquid Fertilisers Pty Ltd
61 Dowd Street
Wellington WA 6106
Location: +61 1800 753 000
Telephone: Technical Officer

2. HAZARDS IDENTIFICATION


Hazardous Substance: Cereal Plus Zinc Liquid Fertiliser is not classified as hazardous according to Safe Work Australia criteria.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CONTAINS ELEMENTS
- Nitrogen (N)
- Phosphorus (P₂O₅)
- Potassium (K₂O)
- Sulphur (S)
- Magnesium (Mg)
- Zinc (Zn)
- Manganese (Mn)
- Copper (Cu)
- Iron (Fe)
- Boron (B)
- Cobalt (Co)
- Molybdenum (Mo)

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure:

Swallowed: If person is conscious, rinse mouth thoroughly with water immediately and give water or milk to drink. DO NOT induce vomiting. Seek medical assistance, if more than a small quantity has been swallowed, or if there is pain, or difficulty with swallowing.

Eyes: Flush gently with running water for at least 15 minutes lifting lower and upper eyelids occasionally. Seek medical attention if irritation develops.
Skin
Gently flush affected areas with water. Seek medical attention if irritation develops. Remove all contaminated clothing and launder before re-use.

Inhaled Handling
If over exposure occurs remove affected person to a well ventilated area. Keep warm and at rest. In emergency situations, if breathing is difficult give oxygen. If the affected person suffers cardiac arrest commence cardio-pulmonary resuscitation immediately. Seek urgent medical attention.

Advice to Doctor
This product contains nitrates, which may be reduced to nitrites by intestinal bacteria. Nitrites may affect the blood (methaemoglobinaemia) and blood vessels (vasodilating and a fall in blood pressure). Effects peak within 30 minutes. Clinical signs of cyanosis appear before other symptoms because of the dark pigmentation of methaemoglobin. Institute cardiac monitoring, especially in patients with coronary, artery, or pulmonary disease.

5. FIRE FIGHTING MEASURES

Flammability Conditions
Non flammable and does not support combustion.

Extinguishing Media
Extinguish fires with a large amount of water.

Personal Protective Equipment
No Data Available

Flash Point
No Data Available

Lower Explosion Limit
No Data Available

Upper Explosion Limit
No Data Available

Auto Ignition Temperature
No Data Available

Hazchem Code
No Data Available

6. ACCIDENTAL RELEASE MEASURES

Containment and Clean Up
Any spillage should be contained promptly with sand, earth or vermiculite. Recover contained product and recycle. Absorb remaining product in sand, earth or vermiculite. Wash down area and prevent run-off into drains, sewers, or waterways.

7. HANDLING AND STORAGE

Handling
Keep away from copper, zinc, or their alloys, aluminum, or its alloys, mild steel, or concrete when transporting.

Storage
Store in a dedicated clean tank. Avoid contamination with any chemical. Avoid evaporation of water from the liquid fertiliser. Store away from incompatible materials, which include strong acids, hypochlorites, bleach, pool chlorine, or chlorine based cleaning products.

8. EXPOSURE CONTROLS / PROTECTION

Exposure Limits
No exposure standards allocated.

Personal Protective Equipment
Wear rubber or PVC gloves to prevent skin contact. Where mist is a problem use a P2 type canister Respirator. Wear PVC jacket and pants to prevent contact. Wear chemical safety glasses to prevent eye contact.

Engineering Controls
Use in well ventilated areas. Avoid high mist concentration.
9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Green Brown Liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight Pungent Odour</td>
</tr>
<tr>
<td>Colour</td>
<td>Green Brown Liquid</td>
</tr>
<tr>
<td>pH of 5% solution</td>
<td>1.8 – 2.0</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Does not exert significant vapour pressure.</td>
</tr>
<tr>
<td>Relative Vapour Density</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Boiling/Melting Point</td>
<td>&gt;100°C</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Miscible in all proportions with water.</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.42</td>
</tr>
<tr>
<td>Volatile Percent</td>
<td>No Data Available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not Flammable</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not relevant, does not give off flammable vapours.</td>
</tr>
<tr>
<td>Auto Ignition Temp</td>
<td>No Data Available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity: Cereal Plus Zinc Liquid Fertiliser is not compatible with copper, zinc, or their alloys (i.e. bronze, brass, galvanised metals, etc.), aluminum, mild steel and concrete. Do not use the above materials of construction in handling systems, or storage containers for Cereal Plus Zinc Liquid Fertiliser.

11. TOXICOCLOGICAL INFORMATION

General Information: Cereal Plus Zinc Liquid Fertiliser has low toxicity. Use safe work practices to avoid eye or skin contact and mist inhalation. Prolonged or repeated exposure may cause drying of the skin with cracking and irritation that may lead to dermatitis.

Target Organs: Respiratory system, eyes and skin. Routes of Entry Ingestion or Inhalation.

Eye Irritant: May cause irritation, redness and pain following contact.

Ingestion: Presents moderate toxicity, unless large amounts are ingested. Large amounts give rise to gastro-intestinal irritation, with symptoms such as nausea, vomiting and diarrhoea. Large amounts may also cause dilation of blood vessels by direct smooth muscle relaxation and methaemoglobinemia (excessive conversion of haemoglobin to methaemoglobin, which is incapable of binding and carrying oxygen - methaemoglobin is formed when iron in the haem molecule is oxidised from the ferrous to the ferric state). Symptoms include dizziness, abdominal pain, vomiting, bloody diarrhoea, weakness convulsions and collapse.

Inhalation: High mist concentration of air-borne material may cause irritation to the nose and upper respiratory tract. Symptoms may include coughing and sore throat. Prolonged exposure may be harmful.

Skin Irritant: Prolonged contact may cause some irritation, including redness and itching. No harmful effects from skin contact have been reported.

12. ECOLOGICAL INFORMATION

Environment: It is not anticipated to cause any adverse effects to plants or animals.
13. DISPOSAL CONSIDERATIONS

Disposal Methods and Containers: Dispose of on a farm, or authorised waste facility in accordance with statutory requirements. Contact the manufacturer if additional information is required.

Legislation: Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION


15. REGULATORY INFORMATION

Poisons Schedule: N/A

EPG: N/A

AICS Name: N/A

NZ Toxic Substance: N/A

HSNO Hazard Classification: N/A

ERMA Approval Code: N/A

16. OTHER INFORMATION

Key Legend:

NOHSC: National Occupational Health and Safety Commission

SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons

ACGIH: American Conference of Government Industrial Hygienists

ES-TWA: Exposure Standard – Time weighted average

ES-STEL: Exposure Standard – Short term exposure level

ES-Peak: Exposure Standard – Peak level

LD Lo: The lowest dose in an animal study in which lethality occurred

LD 50: LD50 Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation

TD Lo: The lowest dose of a substance known to have produced signs of toxicity

TC Lo: Lowest published toxic concentration

LC Lo: Lowest published lethal concentration

LC 50: Lethal concentration that kills 50% of an animal population within a specified time

t/m³: Tonnes per cubic metre

mg/m³: Milligrams per cubic metre

mg/kg: Milligrams per kilogram

g/L: Grams per litre

%w/v: weight per volume percentage

%w/w: weight per weight percentage

SG: Specific Gravity

pH: relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline
Disclaimer

This document has been prepared by Rural Liquid Fertilisers (RLF), and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue.

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Revision: 1
SDS Date: 16 October 2017
End of SDS