



# MANTISSA

## PRODUCT SAFETY DATA SHEET

1. **Product Name:** **PANDA**  
A soluble micronutrient formulation for use in horticulture

**Marketed by:**  
Mantissa Corporation Ltd, New Zealand.

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2. **Composition**  
A buffered formulation of inorganic salts of calcium and other micronutrients:

Calcium	22.5 % w/v (expressed as CaO)
Nitrogen	14.9 % w/v minimum
Magnesium	3.0 % w/v minimum (expressed as MgO)
Zinc	300 ppm w/v
Boron	750 ppm w/v

Hazardous Ingredient:	Propionic acid < 1.0% w/w
Hazard Symbol:	Corrosive C
Risk Phrase:	R35 Corrosive – causes burns

3. **Hazards**  
Not classified as hazardous

4. **First Aid Measures**
- |             |   |
|-------------|---|
| Eyes:       | Irrigate with clean water for at least 15 minutes. Seek medical attention if any irritation or redness persists.      |
| Skin:       | Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical attention if any irritation persists. |
| Ingestion:  | If swallowed drink plenty of water and seek medical advice  |
| Inhalation: | Remove from exposure and provide maximum ventilation  |

5. **Fire Fighting Measures**  
The product will not burn. If involved in a fire, fumes and vapours may be harmful. Fire fighters should wear breathing apparatus.  
Use dry chemical, foam, water spray, sand or earth. Prevent entry of the product or contaminated water into watercourses ditches or drains.

- 6. Accidental Release (Spillage)**  
Wear suitable protective clothing (Refer to Section 8 below).  
Cover the spillage with inert absorbent material (sand, earth etc), shovel up and transfer to a container for later removal to a safe place for disposal.  
Flush the area with plenty of water when all the spillage has been removed.  
Prevent the spillage from entering watercourses sewers or drains. Inform the proper authorities if gross contamination of water is threatened or occurs.
- 7. Storage and Handling**  
Keep in original container, tightly closed  
Keep cool and dry in a suitable agricultural chemical store under lock and key  
Keep away from food, drink and animal feeding stuffs and out of reach of children.  
Do not allow to freeze. Store above 5°C. Do not store in direct sunlight.
- 8. Personal Protection**  
Wear suitable protective gloves when handling the concentrated product.  
Avoid breathing the spray mist when using.
- 9. Physical and Chemical Properties**  
Appearance: A clear yellow mobile liquid  
Odour: Sharp acidic odour  
Specific Gravity: Approx. 1.49 – 1.51  
Ph: Approx. 4
- 10. Stability and Reactivity**  
Very stable. Stores for at least 2 years in original containers in normal agricultural chemical storage conditions. Do not allow to freeze – store above 5°C.
- 11. Toxicological Information**  
This product is of low toxicity:  
Acute oral LD50: >5,000 mg/kg.bw (calculated)  
Acute dermal LD50: >5,000 mg/kg.bw (calculated)  
Irritancy: May be mildly irritating to skin and eyes
- 12. Environmental Protection**  
This product expected to be of low toxicity to fish and other aquatic life. Its components are readily bio-degradable and bio-accumulation is unlikely.  
Do not contaminate surface waters or ditches with any chemical or used containers.
- 13. Disposal of Unwanted Product and Used Containers**  
Consult the local authorities before disposing of unwanted chemical.  
Triple-rinse and puncture used containers and dispose of as permitted by local authorities. Do not re-use containers for any purpose.
- 14. Transport Information**  
Road Transport: Not hazardous  
UN Number: No UN Number  
Proper Shipping Name: Non-hazardous  
IMDG Class: Not applicable  
CPL Packing Group: Not applicable

**15. Regulatory Information**

No statutory phrases apply. The Chemicals (Hazard Information and Packaging for Supply) Regulations do not apply to this product.

**16. Other Information**

The above information is intended to give health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the use of the product, for which purpose the product label and any appropriate technical usage literature available should be consulted and any relevant licences, consents or approvals complied with. The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate to the best of the issuer's available knowledge at the date of publication, and will be updated as and when appropriate. No liability will be accepted for any loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

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