



# MANTISSA

## PRODUCT SAFETY DATA SHEET

1. **Product Name:** **HEADLAND SPEAR**  
A herbicide for use in agriculture, amenity horticulture and industrial situations

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

**Contact Points:**  
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**Emergency Telephone Number:** **0800 764 766**  
(Available outside business hours)

2. **Composition**

| <i>Ingredient</i>       | <i>CAS No</i> | <i>Conc'n</i> | <i>Class'n</i> | <i>Risk Phrases</i>     |
|-------------------------|---------------|---------------|----------------|-------------------------|
| MCPA                    | 2039-46-5     | 500 g/l       | Xn             | R20/21/22               |
| 4-chloro-2-methylphenol | 1570-64-5     | 2.6 g/l       | T; Xi<br>C; N  | R23; R35;<br>R41; R50   |
| Dimethylamine           | 124-40-3      | 4.3 g/l       | F+; Xn<br>Xi   | R12; R20<br>R37/38; R41 |

3. **Hazards**  
**HAZARD CLASSIFICATIONS: 6.1D, 6.3B, 6.5B, 6.9A, 8.3A, 9.1D, 9.2A, 9.3C**

Harmful in contact with skin and if swallowed. Risk of serious damage to eyes. EU Classification Xn (Harmful)

4. **First Aid Measures**
- Eyes: Irrigate gently with clean water for at least 15 minutes. Send to hospital without delay.
- Skin: Remove contaminated clothing. Wash thoroughly with soap and water.  
Seek medical attention if any irritation or redness persists.
- Ingestion: Check breathing and heartbeat and give cardiac massage/artificial respiration if necessary.  
If conscious, give plenty of water to drink.  
Keep patient at rest and obtain medical attention/send to hospital immediately. Do not induce vomiting.

Inhalation: Remove from exposure and provide maximum ventilation.  
If unconscious, secure airway and place in recovery position.  
If heart-beat is absent, give external cardiac compression.  
If there is coughing or difficulty breathing, keep at rest in a position of maximum comfort.  
If there is cyanosis (blueness of lips) administer oxygen by facemask. Send to hospital without delay.

## 5. Fire Fighting Measures

Headland Spear will not burn. If involved in a fire, decomposition fumes and vapours will be toxic. Fire fighters should wear breathing apparatus. Use dry chemical, foam, water spray, carbon dioxide, sand or earth. Prevent entry of the product or contaminated water into watercourses ditches or drains by bunding the area with sand or earth if possible.

## 6. Accidental Release (Spillage)

Wear suitable protective clothing (see Section 8). Remove contaminated clothing immediately. Do not eat drink or smoke. Keep bystanders away. Recover gross spillage by pumping using an explosion-proof pump or absorb small quantities onto a suitable absorbent (sand or earth). Transfer to a labelled 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 authorities if contamination of waterways, sewers or drains is threatened or occurs.

## 6. 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.  
Avoid contact with skin, eyes or clothing. Avoid breathing vapours.

## 8. Personal Protection

Wear coveralls, suitable protective gloves and face-shield to BS2092 when handling the concentrated product or contaminated surfaces and dealing with spillages. Wear suitable respiratory equipment in cases of insufficient ventilation. Avoid breathing the spray mist when using.  
Decontaminate all personal protective equipment after use.

Occupational Exposure Limits: None assigned

## 9. Physical and Chemical Properties

Appearance: A clear brown liquid  
Odour: Characteristic, fishy amine odour  
Boiling point/range: >100°C  
Vapour pressure: Negligible  
Solubility: Completely miscible in water  
Specific Gravity: 1.12 – 1.15  
pH: 7.5 – 9.5

## 10. Stability and Reactivity

Stability: Very stable. Stores for at least 2 years in original containers in normal agricultural chemical storage conditions.

Reactivity: Avoid contact with strong acids and oxidising agents. May corrode aluminium and zinc.

Decomposition: may generate oxides of carbon and nitrogen and hydrogen chloride if heated to decomposition.

## 11. Toxicological Information

### Acute Toxicity:

Acute oral LD50: 1239 mg/kg.bw (rat)

Acute dermal LD50: >2000 mg/kg.bw (rat)

Inhalation LC50: >5.09 mg/l for 4 hours (rat)

Irritancy: Risk of serious damage to eyes

## 12. Environmental Protection

Do not contaminate surface waters or ditches with chemical or used container.

LC50 (96 hour): Rainbow trout 101 mg/litre

Behaviour in soils: Rapidly degraded in soils (t50=24 days). Low bioaccumulation potential (log Pow = -0.71 at pH7)

## 13. Disposal of Unwanted Product and Used Containers

Consult the local authorities before disposing of unwanted chemical. It is recommended that the chemical is mixed with a combustible solvent and burned in a chemical incinerator equipped with an afterburner and scrubber. Dispose of containers by burning or as permitted by local authorities. Do not re-use containers for any purpose

## 14. Transport Information

Road Transport: Not hazardous

UN Number: None

Proper Shipping Name: None

UN Class: Not classified

CPL Packing Group: None

ADR/RID Description: Not applicable

IMDG Class: Not classified

## 15. Regulatory Information

Hazard Symbol: Primary Symbol Harmful Xn

Risk Phrases: R22 Harmful if swallowed

R41 Risk of serious damage to eyes

R52 Harmful to aquatic organisms

Safety Phrases:

S2 Keep out of reach of children.

S25 Avoid contact with eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39 Wear suitable gloves and eye/face protection.

S57 Use appropriate containment to avoid environmental contamination.

## 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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