



MANTISSA

PRODUCT SAFETY DATA SHEET

- 1. Product Name:** **EMPEROR**
A micronutrient for use in agriculture and horticulture

Marketed by:
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- 2. Composition**
An aqueous formulation containing 150 g/l elemental copper as the nitrate.
- 3. Hazards:**
Irritating to skin and eyes
- 4. First Aid Measures:**

Eyes: Irrigate with clean water for at least 15 minutes and seek medical advice.

Skin: Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical advice if any irritation or redness persists.

Ingestion: If swallowed drink plenty of milk or water and seek medical advice.

Inhalation: Remove from exposure and provide maximum ventilation
- 5. Fire Fighting Measures**
Emperor 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 (see Section 8 below).
Cover the spillage with inert absorbent material (sand, earth etc), shovel up and transfer to a container for later remove 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 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 feedingstuffs 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 and face-shield when handling the concentrated product. Avoid breathing the spray mist when using.

9. Physical and Chemical Properties

Appearance: A clear blue liquid
Odour: Mild chemical odour
Specific Gravity: Approx. 1.36
pH < 2

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. Shake containers thoroughly before opening and use.

11. Toxicological Information

Acute oral LD50: >2,000 mg/kg.bw (calculated)
Acute dermal LD50: >4,000 mg/kg.bw (calculated)
Irritancy: Irritating to skin and eyes

12. Environmental Protection

This product is expected to be of low toxicity to fish.
Bio-accumulation is unlikely to occur.
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

Hazard Symbol: Irritant Xi

Risk Phrases:
R36/38 Irritating to eyes and skin

Safety Phrases:
S2 Keep out of reach of children
S24/25 Avoid contact with skin and 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

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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