



Material Safety Data Sheet

Infosafe No. 3NUBD Issue Date : April 2006 ISSUED by NUFARM

Product Name : **Tri-Base Blue Flowable Copper Fungicide**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name Tri-Base Blue Flowable Copper Fungicide
Product Code 7025
Product Type Group Y Fungicide
Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia
Emergency Tel. 24hr 1800 033 498
Telephone/Fax Number Tel: (03) 9282-1000 Fax: (03) 9282-1001
Recommended Use For control of various diseases of certain fruit, nuts, vegetables and ornamentals as per the Directions for Use table on the label.
Other Information This MSDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. HAZARDS IDENTIFICATION

Hazard Classification NON-HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Other Information Poisons Schedule S6

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Liquid

| Ingredients | Name | CAS | Proportion |
|--------------------|--|------------|-------------------|
| | Copper present as tribasic copper sulphate | 1344-73-6 | 190 g/L |
| | Ethylene glycol | 107-21-1 | 80 g/L |
| | Other Ingredients | | Balance |

4. FIRST AID MEASURES

Inhalation Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.
Ingestion Rinse mouth and then drink plenty of water.
If swallowed do NOT induce vomiting; seek medical advice immediately and show this container or label or contact the Poisons Information Centre on 13 11 26 (Aust). Make every effort to prevent vomit from entering the lungs by careful placement of the patient.
Skin Wash affected areas thoroughly with soap and water.
Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes.
Seek medical advice.
First Aid Facilities If poisoning occurs, contact a doctor or Poisons Information Centre on 13 11 26 (Australia).



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Advice to Doctor Treat symptomatically.
For exposure to Ethylene Glycol:
Remove ingested glycol by gastric lavage or emesis.
Give ethanol to prevent metabolism of ingested ethylene glycol to oxalate.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media If involved in a fire, the product will not burn. Choose extinguishing media to suit the burning material.

Hazards from Combustion Products Non-combustible.
May emit hazardous smoke and fumes if involved in fires or exposed to extreme heat.

Special Protective Equipment for fire fighters Breathable air apparatus may have to be worn if material is involved in fires especially in confined spaces.

Hazchem Code None Allocated

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite).
Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection For appropriate personal protective equipment (PPE), refer Section 8.
If product has dried out and the possibility of dust generation exists, wear a suitable respirator.

Clean-up Methods - Large Spillages Place damaged containers in recovery bins (if available) and return to manufacturer.
If large liquid spills occur, attempt to recover as much spilt material from sumps and bunded areas before absorbing remaining material into vermiculite or other absorbent.

Environmental Precautions Use earthen bunds or absorbent bunding to prevent spreading of spillage.
Prevent product or washings from entering drains, waterways or sewers.

7. HANDLING AND STORAGE

Precautions for Safe Handling Do NOT contaminate dams, rivers or streams, or any other water bodies with chemical or used containers.

Conditions for Safe Storage Store in the closed, original container in a cool, well ventilated area.
Do not store for prolonged periods in direct sunlight.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards NOHSC has set the following exposure standard for copper (as Cu) (dusts and mists) : TLV (TWA) 1 mg/m³, STEL -.
NOHSC has set the following exposure standard for ethylene glycol : TLV (TWA) 10 mg/m³, STEL -. SK
'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

Engineering Controls Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment It is good practice to wear suitable personal protective equipment (PPE).
When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC gloves and goggles.

Hygiene Measures After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.
After each day's use, wash contaminated clothing and safety equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Liquid



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| | |
|----------------------------|--|
| Appearance | Greenish-blue liquid. |
| Solubility in Water | Disperses in water. |
| Specific Gravity | 1.28 |
| Vapour Pressure | Active ingredient is an inorganic salt. Not volatile. |
| Volatile Component | Active ingredient is not volatile |
| Flammability | Non combustible material. |

10. STABILITY AND REACTIVITY

| | |
|---------------------------------|---|
| Incompatible Materials | Iron, strong acids, aluminium and its alloys. |
| Hazardous Polymerization | Hazardous polymerisation is not possible. |

11. TOXICOLOGICAL INFORMATION

| | |
|------------------------------------|--|
| Inhalation | The components of the product are of low volatility and no adverse effects are expected from handling the concentrate. |
| Ingestion | Possible symptoms of exposure of the concentrate include: vomiting, stomach pains, symptoms attributed to the central nervous system and kidneys, hemolytic crisis accompanied by damage in the liver and brain. |
| Skin | May irritate the skin. |
| Eye | May irritate the eyes. |
| Chronic Effects | Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects. |
| Acute Toxicity - Oral | LD50 (rat) approx. 2500 mg/kg for the formulated product |
| Acute Toxicity - Dermal | LD50 (rat) >2000 mg/kg for the formulated product |
| Acute Toxicity - Inhalation | LC50 (rat) (4hr) >2.6 mg/l |
| Eye Irritation | Not an eye irritant. |
| Skin Irritation | Not a skin irritant. |
| Other Information | ADI for copper is 0.2 mg/kg/day, NOEL - mg/kg/day. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, September 2005). |

12. ECOLOGICAL INFORMATION

| | |
|---|--|
| Known Harmful Effects on the Environment | The product is a marine pollutant for sea transport. |
| Other Precautions | Do not contaminate dams, waterways or sewers with this product or the containers which have held this product. |
| Environ. Protection | Spray drift should be avoided, read the label for more information. |
| Acute Toxicity - Fish | The following data is for the formulated product. Not toxic to fish. LC50 (96 hr) for rainbow trout is >100 mg/l. |
| Acute Toxicity - Daphnia | EC50 (48hr) for daphnia magna is 0.61 mg/l. |
| Acute Toxicity - Algae | EC50 (72hr) for Scenedesmus subspicatus >100 mg/l. |
| Acute Toxicity - Other Organisms | Birds: Not toxic to birds. LD50 for japanese quail is 1428 mg/kg Not toxic to bees. |

13. DISPOSAL CONSIDERATIONS



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Product Disposal On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who hold periodic collections of unwanted chemicals (ChemCollect).

Container Disposal Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMuster symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION

U.N. Number None Allocated
Proper Shipping Name None Allocated
DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated
Storage and Transport Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

UN Number (Sea Transport) 3082
IMO Class/Packing Group Class 9; Packing Group III
IMO Marine Pollutant Marine Pollutant
IMO Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains tribasic copper sulphate)

15. REGULATORY INFORMATION

Poisons Schedule S6
Packaging & Labelling POISON
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Contact Person/Point Normal Hours: Mr Volker Maier Phone: (03) 9282 1000
After Hours: Shift Supervisor Phone: 1800 033 498

Revisions Highlighted The MSDS was reviewed. Minor changes were made to the information. The MSDS is now issued in a 16 header format.
...End Of MSDS...