

Material Safety Data Sheet

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name:	Tribasic Liquid
Product Type:	Group M1 Fungicide
Company Name:	Melpat International Pty Ltd
Address:	4/22 Parry Avenue Bateman, WA 6150
Telephone Number:	(08) 9312 3200
Fax Number:	(08) 9312 3233
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
	Not classified as Hazardous.
	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 1344-73-6 190 g/L sulphate
	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. Rinse mouth and then drink plenty of water.
Ingestion:	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). Treat symptomatically.
Advice to Doctor:	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

	NOHSC has set the following exposure standard for copper (as Cu) (dusts and mists) : TLV (TWA) 1 mg/m ³ , STEL -.
National Exposure Standards	NOHSC has set the following exposure standard for ethylene glycol : TLV (TWA) 10 mg/m ³ , 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
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, haemolytic 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.
Environment 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 <i>Scenedesmus subspicatus</i> >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

Product Disposal	<p>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).</p>
Container Disposal	<p>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.</p>

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.



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