

Material Safety Data Sheet

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Infosafe No. 3NUHQ Issue Date : December 2007 ISSUED by CRPCARE

Product Name : **MEDLEY PLUS Systemic Fungicide**

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name MEDLEY PLUS Systemic Fungicide
Product Code 0916
Product Type Group D Y Fungicide
Company Name NUFARM AUSTRALIA LIMITED. (ABN 80 004 377 780)
Address 103-105 Pipe Road Laverton North
Victoria 3026 Australia
Emergency Tel. 1800 033 498 (24hr Australia)
Telephone/Fax Number Tel: +61 3 9282-1000
Fax: +61 3 9282-1001
Recommended Use For the control of downy mildew on grapevines and phytophthora trunk canker and root rot of macadamias 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 HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Risk Phrase(s) R22 Harmful if swallowed.
R43 May cause sensitization by skin contact.
Safety Phrase(s) S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.
Other Information Poisons Schedule S5

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization Solid

Ingredients	Name	CAS	Proportion
	Copper (present as Copper Oxychloride)	1332-40-7	350 g/kg
	Other ingredients (considered non-hazardous)		Balance
	Metalaxyl	57837-19-1	150 g/kg

4. FIRST AID MEASURES

Inhalation The product is handled in a water soluble bag. Over-exposure by inhalation is improbable. Check for other causes of observed symptoms and seek medical advice.
Ingestion If swallowed DO NOT induce vomiting. Rinse mouth and then drink plenty of water. Obtain medical advice.
Skin Wash affected areas thoroughly with soap and water. Remove contaminated clothing and launder before re-use.
Eye If in eyes, hold eyelids open and wash with copious amounts of water for at least 15 minutes. Seek medical advice if irritation develops or persists.
First Aid Facilities If poisoning occurs, contact a doctor or the Poisons Information Centre

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Advice to Doctor (Australia) on 13 11 26.
Treat symptomatically.
No specific antidote.
Remove by gastric lavage. Victim may suffer stomach pains, symptoms attributed to the CNS and kidneys, hemolytic crisis accompanied by damage in the liver and brain.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Water fog, foam, carbon dioxide or dry chemical.

Hazards from Combustion Products May emit toxic smoke and fumes if involved in fires or exposed to extreme heat.

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

Other Information STOP FIRE WATER FROM ENTERING DRAINS OR WATER BODIES.

6. ACCIDENTAL RELEASE MEASURES

Spills & Disposal Recover the product by sweeping up or vacuuming without raising dust. Collect spilled material and waste in sealable open-top type containers for disposal.

Personal Protection For appropriate personal protective equipment (PPE), refer Section 8.

7. HANDLING AND STORAGE

Precautions for Safe Handling Avoid generating dusts while handling the product and mixing. 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 dry, cool well ventilated area out of direct sunlight.

Other Information Always read the label and any attached leaflet before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards No exposure standard for this product has been set, however, an exposure standard has been set for copper, dusts and mists (as Cu) at 1 mg/m³.

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

Personal Protective Equipment When opening the container, preparing the spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and a washable hat, nitrile or elbow-length PVC gloves and face shield or goggles and disposable dust mask.
Re-entry period: Do not enter treated area until spray has dried.

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 Solid

Appearance Blue to green powder in a water soluble release pack.

Odour Odourless

Solubility in Water Disperses in water.

Vapour Pressure Negligible @ 20°C (copper oxychloride);
0.75 mPa @ 25°C (metalaxyl)

Octanol/Water Partition Coefficient Kow Log P is 1.75 for metalaxyl

Flammability Non combustible material.

10. STABILITY AND REACTIVITY

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Product Name : **MEDLEY PLUS Systemic Fungicide**

Chemical Stability	Stable under normal conditions.
Incompatible Materials	Incompatible with acids, calcium polysulphide, dithiocarbamates, alkaline pesticides such as lime sulphur, dinitro compounds, phosdrin, dimethoate, TMTD (thiram), calcium compounds and mercury compounds.
Hazardous Polymerization	Hazardous polymerisation is not possible.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No harmful effects are expected if the precautions on the label and this MSDS are followed.
Inhalation	Avoid inhalation of spray mist. Excessive exposure to product dust may cause cough, mucous production and shortness of breath, reflecting metal fume fever.
Ingestion	Not a likely route of exposure. Ingestion of large doses of copper salts may result progressively in irritation of the gastrointestinal tract, nausea, vomiting, salivation, gastric pain, hemorrhagic gastritis, diarrhea, capillary damage, liver and kidney damage, and central nervous system stimulation followed by depression. Jaundice, pain in the liver, and hemolytic anemia have been reported following acute human poisonings.
Skin	Prolonged contact with the concentrate may cause irritation. Repeated or prolonged contact with the concentrate may lead to irritant contact dermatitis. Prolonged or repeated exposure may cause skin sensitisation.
Eye	May cause slight irritation to the eyes. Possible symptoms include redness, swelling, tearing and pain.
Chronic Effects	Low chronic toxicity unless excessive exposure is encountered. Excessive exposure to copper by inhalation may result in irritation of the upper respiratory tract which, if severe, may lead to perforation of the nasal septum after long periods of exposure. Repeated ingestion of copper salts may result in anemia, liver and kidney damage. Chronic inhalation exposure may cause a metallic taste in the mouth, irritation of the upper respiratory tract such as the nasal mucosa that may progress to perforation of the nasal septum. Chronic cough may also occur. Copper oxychloride, which comprises 87.7% of this product, governs the toxicity of the product. The remaining components have low to negligible toxicity.
Acute Toxicity - Oral	LD50 (rat) 700 - 800 mg/kg for copper oxychloride LD50 (rat) 633 mg/kg for metalaxyl
Acute Toxicity - Dermal	LD50 (rat) >2000 mg/kg for copper oxychloride and metalaxyl
Acute Toxicity - Inhalation	LC50 (rat) (4hr) >30 mg/l for copper oxychloride LC50 (rat) (4hr) >3.6 mg/l for metalaxyl
Human Effects	Copper-intolerant individuals should not be exposed to this material. No additional information is available on whether overexposure to this material would aggravate other existing special medical conditions.
Other Information	The Australian Acceptable Daily Intake (ADI) for copper for a human is 0.2 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of - mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, September 2006). ADI for metalaxyl is 0.03 mg/kg/day, NOEL 3 mg/kg/day.

12. ECOLOGICAL INFORMATION

Environ. Protection	Spray drift should be avoided, read the label for more information.
Acute Toxicity - Fish	LC50 (48 hr) for carp is 2.2 mg/l for copper oxychloride LC50 (96 hr) for rainbow trout is >100 mg/l for metalaxyl
Acute Toxicity - Daphnia	LC50 (48 hr) for daphnia is 3.5 mg/l for copper oxychloride. EC50 (48hr) for daphnia magna is >28 mg/l for metalaxyl.
Acute Toxicity - Other Organisms	Not toxic to bees.

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13. DISPOSAL CONSIDERATIONS

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 (ChemClear®).
Container Disposal	Single rinse before disposal. Puncture and bury empty containers in a 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

Storage and Transport	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.
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15. REGULATORY INFORMATION

Poisons Schedule	S5
Packaging & Labelling	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category	Harmful, Irritant
AICS (Australia)	All of the components in this product are listed on the Australian Inventory of Chemical Substances.

16. OTHER INFORMATION

Date of preparation or last revision of MSDS	11/12/2007	
Contact Person/Point	Normal Hours: Mr Volker Maier After Hours: Shift Supervisor	Phone: +61 3 9282 1000 Phone: 1800 033 498
Revisions Highlighted	First Issue ...End Of MSDS...	