

MATERIAL SAFETY DATA SHEET

DATE OF ISSUE: 14.09.2012

PREPARED BY: LL

1. IDENTIFICATION OF MATERIAL AND SUPPLIER

PRODUCT NAME: Barmac Mancozeb DG Fungicide	FUNGICIDAL GROUP: Group M3 Fungicide: Multisite Activity.	APVMA REGISTRATION NUMBER: 33300
USE: Fungicide	AUSTRALIAN DISTRIBUTOR: Barmac, a division of Amgrow Pty Ltd. 82 Christensen Road, Stapylton, QLD 4207 Phone: (07) 3727 3000 Fax: (07) 3727 3030	EMERGENCY PHONE NUMBERS: Australia: Fire Brigade, Ambulance and Police Services: 000 Poisonings: 131 126 POISON INFORMATION CENTRE
FORM: Dry Flowable		

2. HAZARD IDENTIFICATION

Classified as hazardous according to the criteria of SWA. Not Dangerous according to the ADG Code.	RISK PHRASES: R63, R43, R36/37/38	SAFETY PHRASES: S1/2, S23/24/25.
HAZARD CATEGORY: Xn (Harmful)		
POISON SCHEDULE: S5 according to the SUSMP		
ADG Classification: Not Applicable	HAZCHEM CODE: 2X	UN NUMBER: Not Applicable.
Package Group: Not Applicable		

3. COMPOSITION INFORMATION ON INGREDIENTS

MIXTURE: CHEMICAL IDENTITY: Mancozeb Other Non-Hazardous Ingredients	PROPORTION: 750 g/kg Balance	CAS NO: 8018-01-7 Not Applicable
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4. FIRST AID MEASURES

SWALLOWED: Contact a doctor or Poisons Information Centre.	SKIN: Remove any contaminated clothing from patient. Wash skin thoroughly with soap and water.
EYES: Irrigate eye(s) with flowing water for at least 15 minutes	INHALED: Remove patient from contaminated area. Contact a doctor if symptoms persist.

FIRST AID FACILITIES: Provide eye wash and shower facilities in workplace.

5. HEALTH EFFECTS

INGESTION: Significant oral exposure is considered to be unlikely. However this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.	SKIN: Sensitizer. Exposure to product, once sensitisation has occurred, may manifest itself as skin rash or inflammation, and in some individuals this reaction can be severe. In addition product may be irritating but only transient.
EYES: Irritant. May cause mild transient discomfort.	INHALED: May be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

6. FIRE-FIGHTING MEASURES

SPECIAL FIRE FIGHTING PROCEDURES: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated.

UNUSUAL FIRE & EXPLOSION HAZARDS:

On heating will emit irritating and toxic fumes. The formation of hydrogen sulphide, carbon disulfide, sulphur oxides and carbon oxides can be expected in a fire situation. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke. Finely dispersed particles may form explosive mixtures in air.

FLAMMABILITY: Not Flammable.

HAZCHEM CODE: 2X

EXPOSURE LIMITS: SWA has set a limit for dust as TWA 5.0mg/m³.

EXTINGUISHING MEDIA: Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained. Contain all runoff.

7. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Wear cotton overalls over normal clothing, buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves. Wash thoroughly before smoking, eating or using toilet facilities. Wash hands after use.

ENVIRONMENTAL PROTECTION: DO NOT contaminate ponds, streams, or waterways.

CLEAN UP AND DISPOSAL: Prevent spill from spreading or entering waterways or drains. Vacuum or sweep up spilt material. Fill material along with any contaminated soil etc. into containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable drum. On completion of clean-up remove and wash all protective clothing and equipment with detergent and water. Any heavily contaminated clothing should be placed in a plastic garbage bag and placed in a sealed drum. Do not smoke, eat or drink during the clean-up operation.

8. HANDLING AND STORAGE

HANDLING: No smoking, eating or drinking should be allowed where material is used or stored. Keep out of reach of children. Do not store for prolonged periods in direct sunlight. When opening the container and preparing spray, wear cotton overalls over normal clothing, buttoned to the neck and wrist and washable hat, elbow-length PVC gloves, goggles, and disposable dust mask covering mouth and nose. When using the prepared spray, wear cotton overalls over normal clothing, buttoned to the neck and wrist and a washable hat and elbow-length PVC gloves. After each day's use, wash gloves, goggles and contaminated clothing.

STORAGE: Store in closed original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Keep container tightly sealed and do not store with seed, fertilisers or foodstuffs. Make sure that the product does not come into contact with incompatible materials.

9. EXPOSURE CONTROL/PERSONAL PROTECTION

SKIN PROTECTION: Wear cotton overalls buttoned to the neck and wrist, washable hat, elbow length PVC gloves, impervious footwear.

RESPIRATOR TYPE: if there is a significant chance for dust build up, wear a dust mask.

HYGIENE RECOMMENDATIONS: After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use wash gloves, goggles, contaminated clothing.

EYE PROTECTION:

Protective glasses, goggles or face mask should be worn when this product is being used.

EXPOSURE LIMITS: SWA has set a limit for dust as TWA 5.0mg/m³.

VENTILATION: Must be available when using this product.

10. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Brown free flowing small granules.	pH: No data	SPECIFIC GRAVITY (20°C): No data	AUTOIGNITION TEMPERATURE: No data
FLASH POINT: 137.8°C (open cup)	VAPOUR DENSITY: No data	VAPOR PRESSURE (38°C): No data	SOLUBILITY: Suspends.

11. STABILITY AND REACTIVITY

STABILITY: Stable if stored in original container under normal ambient conditions.	INCOMPATIBILITY/ CONDITIONS TO AVOID: Strong Acids, Strong Bases, Strong Oxidising Agents. Avoid Moisture.
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HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide (if combustion is incomplete) and smoke, nitrogen and its compounds and under some circumstances oxides of nitrogen.

12. TOXICOLOGICAL INFORMATION

The following relates to the active ingredient, Mancozeb.

Acute oral LD50: The oral LD50 for rats is 5000 mg/kg

Acute dermal LD50: The dermal LD50 for rabbits is >50,000 mg/kg

At very high levels, mancozeb has caused birth defects in test animals, ethylenethiourea, a trace contaminant and breakdown product of mancozeb, has caused thyroid effects, tumours and birth defects in laboratory animals.

13. ECOLOGICAL INFORMATION

The following relates to the active ingredient, mancozeb.

Soil and water: Rapidly degraded in the environment by hydrolysis, oxidation, photolysis, and metabolism. DT50 in soil 6-15 d.

Very toxic to aquatic life.

Fish: LC50 (48 h) for goldfish 9.0, rainbow trout 2.2, catfish 5.2, carp 4.0 mg/L

Bees: LC50 0.193 mg/bee.

14. DISPOSAL

WASTE DISPOSAL METHOD: Rinse plastic bag (where applicable) before disposal. Add rinsings to spray tank. DO not dispose of undiluted chemicals on site. Puncture and bury empty packaging in local authority landfill. If no landfill available, bury the bag below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. No not burn container or product.

15. TRANSPORT INFORMATION

UN NO: Not Applicable. SPECIAL PROVISIONS: None Allocated.	SHIPPING NAME: Not Applicable.
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16. REGULATORY INFORMATION

POISONS SCHEDULE: Schedule 5 according to SUSMP.

HAZARD CATEGORY: Xn (Harmful)

PACKAGING AND LABELLING: Not Allocated.

CLASSIFICATION: Not Allocated.

16. OTHER INFORMATIONS

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail, 7th Edition

SWA Safe Work Australia, formerly ASCC and NOHSC

CAS Number Chemical Abstracts Service Registry Number

SUSMP Standard for the Uniform Scheduling of Medicine & Poisons

UN: United Nations Number

TWA: Time weight average.

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