

SAFETY DATA SHEET

SECTION 1

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Apparent Carbendazim 500 SC Fungicide

Other Names: Carbendazim. Group I Fungicide.
Use: Agricultural fungicide for Macadamia nuts, Chickpeas, Faba beans, Lentils and Vetch.
Company: Apparent Pty Ltd
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SECTION 2

HAZARDS IDENTIFICATION

**Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code**

Not subjected to the ADG code when transported in Australia by Road or Rail in packages 500 L or less; or in IBC's (refer to SP AU01). However, if transported by Air or Sea, this provision does not apply. Then the product is classed as Dangerous (Class 9 Environmentally Hazardous) by IATA and IMDG respectively. See Section 14 of this SDS for details.

Globally Harmonised System (GHS) classification of the substance/mixture:

Germ cell mutagenicity – Hazard Category 1.
Toxic to Reproduction: Hazard Category 1.
Hazardous to the aquatic environment – Long term hazard: Hazard Category 1.

Signal Word: DANGER

Hazard statements:

H340 May cause genetic defects.
H360 May damage fertility or the unborn child.
H410 Very toxic to Aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P273 Avoid release to the environment.
P281 Use personal protective equipment as required.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/attention.
P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with national regulations.

SECTION 2 HAZARDS IDENTIFICATION (Continued)

Pictograms:

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredients:

CHEMICAL	CAS NUMBER	PROPORTION
Carbendazim	10605-21-7	500 g/L
Other ingredients (including water) determined not to be hazardous		Balance

SECTION 4 FIRST AID MEASURES**FIRST AID**

- Ingestion:** If swallowed contact a doctor the Poisons Information Centre on 13 11 26. Rinse mouth thoroughly with water and give water to drink.
- Eye contact:** If in eyes, hold eyelids open and wash with clean water until chemical is removed. Seek medical advice.
- Skin contact:** Remove contaminated clothing and wash affected areas thoroughly with soap and water. Launder contaminated clothing before re-use. If irritation occurs and persists, seek medical advice.
- Inhalation:** Overexposure by inhalation is improbable. Check for other causes of observed symptoms, move victim to fresh air and seek medical advice.

Advice to Doctor: Treat Symptomatically.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Not flammable.

Extinguishing media: Use extinguishing media suitable for surrounding area. Extinguish fire using carbon dioxide, foam or dry agent. If not available, use waterfog or fine water spray but ensure all runoff is contained.

Hazards from combustion products: There is no risk of an explosion from this product under normal circumstances if involved in a fire. Product is unlikely to decompose until heated to dryness. On further heating will emit toxic fumes. Firefighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or smoke.

Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind residents. Wear full protective clothing and self contained breathing apparatus. Do not breathe smoke or vapours generated.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Wear elbow-length chemical resistant gloves and face shield. In the case of spillage, stop leak if safe to do so, and contain spill. Prevent spillage entering drains or watercourses. Contain and absorb spilled material with absorbent material such as sand, clay, cat litter or material such as vermiculite. Collect recoverable product for use as labelled on the product. Vacuum, shovel or pump contaminated spilled material into an approved container and dispose of waste as per the requirements of Local or State Waste Management Authorities. Keep out animals and unprotected persons.

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

SECTION 7**HANDLING AND STORAGE**

Precautions for Safe Handling: WARNING: Contains Carbendazim which causes birth defects and irreversible male infertility in laboratory animals. Avoid contact with carbendazim.

Very dangerous, particularly the concentrate. Poisonous if absorbed by skin contact, inhaled or swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapour or spray mist. When opening the container, preparing spray and using prepared spray, wear elbow-length chemical resistant gloves and face shield. 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, face shield and contaminated clothing.

Conditions for Safe Storage: Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. This product is a Schedule 7 Poison (S7) and must be stored, transported and sold in accordance with the relevant Health Department regulations.

SECTION 8**EXPOSURE CONTROLS / PERSONAL PROTECTION**

Exposure Standards: Exposure guidelines have not been established for this product by Safe Work Australia.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in well ventilated areas. Keep containers closed when not in use.

Personal Protective Equipment (PPE):

General: When opening the container, preparing spray and using prepared spray, wear elbow-length chemical resistant gloves and face shield. 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, face shield and contaminated clothing.

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin before eating, drinking or smoking. **WARNING:** Contains Carbendazim which causes birth defects and irreversible male infertility in laboratory animals. Avoid contact with carbendazim. Very dangerous, particularly the concentrate. Poisonous if absorbed by skin contact, inhaled or swallowed. May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale vapour or spray mist.

SECTION 9**PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Viscous white to grey liquid suspension.
Odour:	Faint mild odour.
Boiling point:	No data available.
Freezing point:	No data available.
Specific Gravity:	1.2 approx at 20°C.
Solubility in Water:	Suspends in water.
pH:	6 to 8.5.
Flammability:	Not flammable.
Corrosive hazard:	Not corrosive.
Flashpoint (°C):	Not flammable.
Flammability Limits (%):	Not applicable.
Poisons Schedule:	This product is a Schedule 7 (S7) poison.
Formulation type:	Suspension Concentrate (SC).

SECTION 10**STABILITY AND REACTIVITY**

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Do not store for prolonged periods in direct sunlight.

Incompatible materials: Avoid strong oxidising agents.

Hazardous decomposition products: Product is unlikely to decompose until heated to dryness. On further heating may emit toxic fumes.

SECTION 10 STABILITY AND REACTIVITY (Continued)

Hazardous reactions: Hazardous polymerisation will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components. As with all products for which limited data is available, caution must be exercised through the use of protective equipment and handling procedures to minimise exposure.

Potential Health Effects:**ACUTE EFFECTS**

Ingestion: Low acute oral toxicity. LD₅₀ > 5000 mg/kg.

Skin: Prolonged contact with the concentrate may cause irritation. Prolonged or repeated exposure may cause skin irritation. LD₅₀ > 2000 mg/kg.

Eye: The concentrate may cause irritation of the eyes.

Inhalation: Not a likely route of exposure when handling the concentrate. May cause irritation to the respiratory tract.

Long Term Exposure:

Carbendazim increased the incidence of benign and malignant hepatic tumours in both sexes of CD-1 mice during a two year feeding study. The carcinogenic effect in some of the studies was shown to be related to impurities mainly 2,3 diaminophenazine (DAP) and 2-amino-3-hydroxyphenazine (HAP). Several in vitro and in vivo tests suggest that carbendazim is probably not a mutagen. ChR-CD rats fed 500 mg/kg diet showed no adverse effects in a three generation reproduction study.

Safe Work Australia has classified carbendazim in the occupational environment as a Toxic to Reproduction Category 2 substance and as a Mutagen Category 2 substance. Carbendazim causes birth defects and (irreversible) male infertility in laboratory animals.

SECTION 12 ECOLOGICAL INFORMATION

Environmental Toxicology: Toxic to fish. LC₅₀ (96 hr) for rainbow trout is 0.87 mg/L. EC₅₀ (48 hr) for daphnia is 0.22 mg/L for carbendazim. Algae: EC₅₀ 1.3mg/L. Birds: Not toxic to birds. LD₅₀ for quail is 5862 - 15595 mg/kg. Bees: Not toxic to bees. LD₅₀ > 50 µg/bee. Worms: LD₅₀ (*Eisenia foetida*) 6 mg/kg.

Environmental Fate: Average soil half-life of carbendazim is 6 - 12 months. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

SECTION 13 DISPOSAL CONSIDERATIONS

Spills and Disposal: Wear prescribed protective clothing and equipment. Keep material out of streams and sewers. Dispose of drummed wastes, including decontamination solution in accordance with the requirements of Local or State Waste Management Authorities. In rural areas contact ChemClear <http://www.chemclear.com.au> for help with collection of unwanted rural chemicals. 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®).

Disposal of empty containers: Triple-rinse containers before disposal. Add rinsings to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or a designated collection point. If not recycling, break, crush or puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.

SECTION 14**TRANSPORT INFORMATION**

Road & Rail Transport: This product is exempt from classification as a Dangerous Good in packs less than 500 litres or less; or in IBC's (refer to SP AU01) under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For other shipments this product is a class 9, UN 3082.

Apparent Carbendazim 500 SC Fungicide is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-
UN 3082, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains Cypermethrin). Hazchem code ●3Z. Hazard Identification Number (HIN) 90.

SECTION 15**REGULATORY INFORMATION**

Under the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP), this product is a Schedule 7 poison.

This product is registered under the Agricultural and Veterinary Chemicals Code Act 1994. Product Registration No. 84027.

This product is classified as a Hazardous Substance under the criteria of Safe Work Australia.

This product is not classified as a Dangerous Good according to the ADG Code (7th Ed).

This product is classified as a Dangerous Good according to International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

Requirements concerning special training:

Check State or Territory regulations that require people who use pesticides in their job or business to have training in the application of the materials.

SECTION 16**OTHER INFORMATION**

Issue Date: 8 August 2017. (First issue). Valid for 5 years till 8 August 2022.

Key to abbreviations and acronyms used in this SDS:

ADG Code Australian Dangerous Goods Code (for the transport of dangerous goods by Road and Rail).

Carcinogen: An agent which is responsible for the formation of a cancer.

Genotoxic: Capable of causing damage to genetic material, such as DNA.

Lavage: A general term referring to cleaning or rinsing.

Mutagen: An agent capable of producing a mutation.

Myotoxic: Having or being a toxic effect on muscle.

Pneumonitis: A general term that refers to inflammation of lung tissue.

PPE: Personal protective equipment.

Teratogen: An agent capable of causing abnormalities in a developing foetus.

Safe Work Australia: Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". Safe Work Australia website. (2017).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.
3. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). United Nations, 2009.

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. End SDS.