

Material Safety Data Sheet

SECTION 1: IDENTIFICATION OF THE CHEMICAL PRODUCT

Product Name: CARAZIM 500 FUNGICIDE

Product Type: Group 1 Fungicide /benzimidazole derivative fungicide

Product Use: Agricultural Fungicide for use as described on the product label.

SECTION 2 : HAZARD IDENTIFICATION

Statement of Hazardous Nature:

This product is classified as: Xn, Harmful. N, Dangerous to the environment. Not classified as hazardous according to the criteria of ASCC.

Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R50, R68. Very toxic to aquatic organisms. Possible risk of irreversible effects.

Safety Phrases: S23, S60, S61, S24/25, S36/37. Do not breathe spray mists. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/Safety Data Sheets. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves.

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

Marine Pollutant: None allocated.

SUSDP Classification: S7

UN Number: None allocated.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	CAS	Proportion
Carbendazim	10605-21-7	50%
Other ingredients	-	to 100%

SECTION 4: FIRST AID MEASURES

Call The Poisons Information Centre if you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

Eye Contact: No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

Ingestion: If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

Advice to Doctor: Treatment is symptomatic.

SECTION 5: FIRE FIGHTING MEASURES

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. Wear full protective clothing and self-contained breathing apparatus. Confine the use of water spray to cooling of unaffected stock, thus avoiding the accumulation of polluted run-off from the site. Contain run-off water with, for example, temporary earth barriers. Stay upwind and keep out of low areas.

Extinguishing Media: Use foam, carbon dioxide, dry powder or water-fog.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn. **Lower Flammability Limit:** Does not burn.

Autoignition temperature: Does not burn. **Flammability Class:** Does not burn.

SECTION 6: ACCIDENTAL RELEASE MEASURES

In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

SECTION 7: HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a locked room or place away from children, animals, food, feedstuff, seed and fertilizers. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

Flammability: Does not burn.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure standards:

Exposure limits have not been established by ASCC for any of the significant ingredients in this product.

No biological limits applicable.

The ADI for Carbendazim is set at 0.03mg/kg/day. The corresponding NOEL is set at 2.5mg/kg/day. ADI means Acceptable Daily Intake and NOEL means No-observable-effect-level. Values taken from Australian ADI List, Dec 2006.

Engineering Control: No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Personal Protective Equipment:

Australian Standards regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**

Product name: **Carazim 500 Fungicide**

Issued: January 2010; Revision January 2015

Poisons Information Centre: 13 1126 from anywhere in Australia

Page 3 of 6

Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

Protective Material Types: We suggest that protective clothing be made from the following materials: PVC, rubber.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Safety deluge showers should, if practical, be provided near to where this product is being used.

Inhalation: Where product is being sprayed and a mist could be produced a respirator should be worn. It should be fitted with a type G cartridge, suitable for agricultural chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Description & colour: White viscous liquid.

Odour: Characteristic odour.

Boiling Point: Greater than 100°C.

Freezing/Melting Point: No specific data. Liquid at normal temperatures.

Volatiles: Water content.

Vapour Pressure: 0.15mPa at 25°C (Carbendazim tech.)

Vapour Density: No data.

Specific Gravity: 1.16 at 25°C

Water Solubility: Completely soluble in water.

pH: 6.0 – 8.0 (1 % aqueous emulsion)

Odour Threshold: No data.

Evaporation Rate: No data.

Autoignition temp: No data.

Flash point: No data.

Flammability limit: No data.

Partition coefficient (octanol/water): Carbendazim: 41.38 at pH 5; 1.51 at pH 7; 1.49 at pH 9 (log P octanol/water)

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use as described on the label and in section 7.

Reactivity: This product is unlikely to react or decompose under normal storage conditions.

Conditions to Avoid: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: Strong acids, strong bases and strong oxidising agents.

Fire Decomposition: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Typical compounds produced are carbon dioxide, carbon monoxide, nitrogen compounds, nitrogen oxides and hydrogen cyanide. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Hazard reactions: None

SECTION 11: TOXICOLOGICAL INFORMATION

Health Effect from likely routes of exposure - Animal Toxicity data:

Acute toxicity:

Acute oral LD50: >2000 mg/kg (rats)

Acute dermal LD50: >2000 mg/kg (rats)

Acute inhalation LC50: LC50 (2 h) for rats >2.15 mg/l air

Eye irritation: Non-irritating to eye (rabbits)

Skin irritation: Non-irritating to skin (rabbits)

Skin sensitization: Non-sensitizer (guinea pigs)

Chronic toxicity: 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.

SECTION 12: ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

For Carbendazim:

Birds: LD₅₀ quail: 5826-15595mg/kg

Fish: LC₅₀ carp: 0.61mg/L

LC₅₀ rainbow trout: 0.83mg/L

LC₅₀ bluegill sunfish: >17mg/L

LC₅₀ guppy: >8mg/L

Algae: EC₅₀ 1.3mg/L

Bees: LD₅₀ 50µg/bee

Daphnia: EC₅₀ 0.13mg/L

Worms: LD₅₀ (*Eisenia foetida*) 6mg/kg

SECTION 13: DISPOSAL CONSIDERATIONS

Instructions for the disposal of this product and its containers are listed on the product label.

For collection of unwanted rural chemicals, contact ChemClear @1800 008 182 www.chemclear.com.au and for help with the disposal of empty drums, contact DrumMuster@ www.drummuster.com.au for local and State contacts.

SECTION 14: TRANSPORT INFORMATION

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

SECTION 15: REGULATORY INFORMATION

SUSDP: Schedule 7; DANGEROUS POISON KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

ADG Classification: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

AICS (Australia): All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Carbendazim, is mentioned in the SUSDP.

APVMA Registration Number: 64490

SECTION 16: OTHER INFORMATION

This MSDS contains only safety-related information sourced from the public domain and analytical results on this product:

Acronyms:

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

AICS Australian Inventory of Chemical Substances

CAS number Chemical Abstracts Service Registry Number

Hazchem Number Emergency action code of numbers and letters that provide information firefighters

IARC International Agency for Research on Cancer

ASCC Office of the Australian Safety and Compensation Council

NTP National Toxicology Program (USA)

R-Phrase Risk Phrase

SUSDP Standard for the Uniform Scheduling of Drugs & Poisons

UN Number United Nations Number

Police and Fire Brigade: Dial 000 **Poisons Information Centre (13 1126)**

Emergency contact: 04 0214 9346 (24 hours)

Information contained in this Material Safety Data Sheet is provided in good faith and is believed to be correct at the date hereof. However, its expected that individuals receiving the information will exercise independent judgement in determining its appropriateness for a particular purpose. Hextar Pty Ltd makes no representation whatsoever as to the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability whatsoever, whether with respect to negligence or otherwise, and no responsibility as permitted by law for any loss or damage arising from or connection with the supply or use of the information in this Material Safety Data Sheet.