

# THIAZOLE 500 SC

## SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** THIAZOLE 500 SC  
**Other identifier:** Thiabendazole  
**Recommended use:** Fungicide  
**Restrictions on use:** Agriculture

**Supplier:** Universal Crop Protection (Pty) Ltd.  
**Co. Reg. No.:** 1983/008184/07  
PO Box 801,  
Kempton Park, 1620, South Africa  
**Telephone:** (011) 396 2233  
**Fax:** (011) 396 4666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

#### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

(Hazcall24) +27 86 044 4411  
(Client: Villa Crop Protection)  
Griffon Poison Information Centre +27 82 446 8946  
(Client: Villa Crop Protection)

#### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946  
Poisons Information Centre +27 861 555 777

### 2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statements
<b>Health</b>		
Dermal	Acute Toxicity 5	H313
Inhalation	Acute Toxicity 4	H332
<b>Environment</b>		
Aquatic acute	Aquatic acute 1	H400
Aquatic chronic	Aquatic chronic 1	H410

#### The most important adverse effects:

**Physiochemical effects:** None known.

**Human health effects:** May be harmful in contact with skin. Harmful if inhaled.

#### Label elements:



**Signal word:** Warning.

#### Hazard statements:

H313: May be harmful in contact with skin.  
H332: Harmful if inhaled.  
H400: Very toxic to aquatic life.  
H410: Very toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P261: Avoid breathing dust, mists and spray.  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release into the environment.  
P302+P317: IF ON SKIN: Get medical help.  
P304+P340+P317: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.  
P391: Collect spillage.  
P501: Dispose of contents/container to suitable landfill in accordance with local regulations.

**Other hazards:** None known.

#### Toxicity:

Classification according to GHS: Category 4

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture

#### Composition:

Chemical Name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Thiabendazole (98%)	148-79-8	51%	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Anti-freeze additive	107-21-1	<5.0%	Acute Tox. 4 (H302)

### 4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.

**Inhalation:** Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

**Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. If irritation persists obtain medical attention.

**Eyes:** Immediately flush eyes with clean water for at least 15-20 minutes. Lift eyelid (s) to facilitate irrigation. If

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present, remove contact lenses after 5 minutes and continue rinsing.

**Ingestion:** If the person is alert, rinse mouth thoroughly with water and administer activated charcoal. Do not give anything by mouth to an unconscious person. Seek medical attention or call a poison control centre for treatment advice if you feel unwell. Do NOT induce vomiting unless instructed to do so by a poison control centre or doctor.

**Anticipated acute effects:** May be harmful in contact with skin. Harmful if inhaled.

**Anticipated delayed effects:** None known.

**Most important symptoms/effects:** None known.

**Advice to physician:** No specific antidote. Treat symptomatically and supportively.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:** Carbon dioxide, dry chemical, water spray or alcohol-resistant foam.

**Unsuitable Extinguishing Media:** Water jet. Use a water jet only to cool heated containers.

**Specific hazards:** Combustion products are toxic or irritant. Inhalation of burning material could be harmful.

**Special Fire Fighting Procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

**Personal protective equipment:** Wear NIOSH/MSHA approved self-contained breathing apparatus and full bunker gear.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Do not breathe dust, mists and spray. Ventilate area of spill or leak, especially in contained areas. Avoid contact with eyes and skin.

**Protective equipment:** Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

**Emergency procedures:** Alert firefighting personnel, evacuate of unprotected animals and people.

**Environmental Precautions:** Prevent spilled product from entering sewers, waterways or ground water as the product is classified to be very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into water courses should be immediately reported to the

police and the Department of Water/Environmental Affairs.

**Methods and Materials for Containment:** Contain spilled product by diking area with sand, earth, vermiculite, or clay.

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

### 7. HANDLING AND STORAGE

#### Handling:

**Precautions for safe handling:** Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken packages and containers without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

**General occupational hygiene:** Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used again.

#### Storage:

**Conditions for safe storage:** Store product in its original container in dry, cool, well-ventilated area. Avoid excessive heat and cold temperatures. Not to be stored next to foodstuffs, feed, and water supplies. Keep out of reach of children, uninformed persons, and animals. Do not contaminate other pesticides and fertilizers.

**Incompatible substances and mixtures:** Refer to product label.

**Packaging material:** Plastic containers.

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible concentration:** No occupational exposure limits have been determined for the significant ingredients in this product.

#### Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust

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ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### Personal Protective Equipment:

**Respiratory Protection:** For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator.

**Hand Protection:** The use of chemically resistant gloves is recommended to prevent against skin contact.

**Eye Protection:** No eye irritation should occur, but use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

**Skin and Body Protection:** Employee must wear appropriate protective (impervious) clothing; coveralls boots, hat to prevent repeated or prolonged skin contact with this product.

**Emergency eyewash:** Where there is any possibility that an employee's eyes may be exposed to this product; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** White homogeneous viscous liquid suspension.

**Odour:** Mild odour.

**pH (1% aqueous dilution):** Not available.

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

**Flash Point:** Not determined – water-based product.

**Flammability:** Not available.

**Upper/lower explosion limits:** Not explosive.

**Vapour Pressure (mm Hg):** Not available.

**Relative Vapour Density:** Not available.

**Density:** 1.09 g/ml

**Solubility:** Completely soluble in water.

**n-octanol/water partition coefficient:** Not available.

**Auto-ignition temperature:** Not available.

**Decomposition temperature:** Not available.

**Viscosity:** Not available.

### 10. STABILITY AND REACTIVITY

**Chemical Stability:** The product is stable for 2 years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50°C,

preferably below 30°C, and not for prolonged periods in direct sunlight.

**Reactivity:** None known.

**Possibility of Hazardous Reactions:** None known.

**Conditions to Avoid:** Extreme heat or cold temperatures.

**Incompatible Materials:** Avoid contact with strong bases and strong oxidising agents. Incompatible with strong alkalis.

**Hazardous Decomposition Products:** Combustion will evolve toxic or irritant fumes.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY:

**Calculated according to GHS**

**Oral LD<sub>50</sub> rats** > 8400 mg/kg.

**Dermal LD<sub>50</sub> rabbit** >3600 mg/kg.

**Inhalation LC<sub>50</sub> rat** >1.0 mg/ℓ.

**Skin Irritation/Corrosion:** Not classified.

**Eye Damage/Irritation:** Not classified.

**Skin Sensitization:** Not classified.

**Respiratory Sensitization:** Not classified.

**Reproductive cell mutagenicity:** Not classified.

**Carcinogenicity:** Not classified.

**Reproductive toxicity:** Not classified.

**Specific target organ toxicity – single exposure:** Not classified.

**Specific target organ toxicity – repeated exposure:** Not classified.

**Aspiration hazard:** Not classified.

**Chronic Effects:** Not classified **POTENTIAL ADVERSE EFFECTS:** None known.

**Inhalation:** Harmful if inhaled.

**Skin contact:** May be harmful in contact with skin.

**Eye contact:** Not expected to cause eye irritation.

**Ingestion:** Do not ingest.

### 12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant.

**ECOTOXICITY DATA:** Thiabendazole.

#### Fish:

LC <sub>50</sub> (96 h)	Bluegill sunfish	19 mg/ℓ
	Rainbow trout	0.55 mg/ℓ
	Sheepshead minnows	>10 mg/ℓ
	Carp	16 mg/ℓ

#### Daphnia

EC <sub>50</sub> (48 h)	0.1 mg/ℓ
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#### Algae:

E <sub>r</sub> C <sub>50</sub> (96 h)	<i>Pseudokirchneriella subcapitata</i>	14.7 mg/ℓ
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#### Other aquatic organisms:

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LC<sub>50</sub> (96h)      shrimps      0.34 mg/ℓ  
                         Oyster      >0026 mg/ℓ

### Birds:

Acute oral LD<sub>50</sub>      Bobwhite quail      >2250 mg/kg  
Dietary LC<sub>50</sub> (5 d)      Bobwhite quail and      >5620 mg/kg diet.  
                         mallard ducks

### Bees:

LD<sub>50</sub> (contact)      >34µg/bee.  
LD<sub>50</sub> (oral)      >4 µg/bee.

### Worms:

LC<sub>50</sub> (14 d)      *Eisenia fetida*      >225 mg/kg soil.

### ENVIRONMENTAL EFFECTS:

#### **Plants:**

The residue on all crops treated pre- or post-harvest is parent thiabendazole.

#### **Persistence and degradability:**

Soil DT<sub>50</sub> >1 y (1 mg/kg, harsh conditions), 33 d (20 °C, 40% MWC, 0.1 mg/kg soil), 120 d (20 °C, 40% MWC, 1 mg/kg soil). Aqueous photolysis DT<sub>50</sub> 29 h (pH 5).

**Bio-accumulative Potential:** Not determined.

**Mobility in soil:** Not determined.

**Other adverse effects:** Not determined.

### 13. DISPOSAL CONSIDERATIONS

**Waste:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

**Container:** Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler ([www.croplife.co.za](http://www.croplife.co.za)). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed.

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### 14. TRANSPORT INFORMATION

**UN Number:** 3082

**Road Transport ADR/IRD:**

Class: 9  
Packaging group: III  
UN Proper Shipping Name: ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Thiabendazole 500 g/ℓ)

**Maritime Transport IMDG/IMO:**

Class: 9  
Packaging group: III  
UN Proper Shipping Name: ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Thiabendazole 500 g/ℓ)

**Marine Pollutant (Y/N):** Yes.

**Air Transport IATA/ICAO:**

Class: 9  
Packaging group: III  
UN Proper Shipping Name: ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Thiabendazole 500 g/ℓ).

**Special/Environmental Precautions:** Not available.

**Transport in bulk** (according to MARPOL 73/78, Annex II and the IBC code): Not available.

### 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation for the mixture:**

OHSA 1993 Regulations for Hazardous Chemical Substances.

**Relevant information regarding restrictions:** None.

**EU regulation:** Regulation EC1272/2008 (EU-GHS/CLP).

**Other national regulations:** None.

**Chemical Safety Assessment carried out?** No

### 16. OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10, 20 and 25 litres plastic containers, labelled according to South African regulations and guidelines.

**Other hazard statements, abbreviations, and explanations:**

**H302:** Harmful if swallowed.

**IATA:** International Air Transport Association.

**IBC:** International Bulk Chemical.

**ICAO:** International Civil Aviation Organization.

**IMDG:** International Maritime Dangerous Goods

**IMO:** International Maritime Organization.

**LD<sub>50</sub> value:** The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

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**TWA:** Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

**ST/STEL:** Short-term exposure limits.

**Disclaimer:** The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

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### END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.