

TAURUS 500 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: TAURUS 500 SC
Other identifier: Iprodione 500 SC
Recommended use: Fungicide
Restrictions on use: Agriculture

Supplier: Villa Crop Protection (Pty) Ltd.
Co. Reg. No.: 1992/002474/07
PO Box 10413,
Aston Manor, 1630, South Africa
Telephone: (011) 396 2233
Fax: (011) 396 4666
Website: 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
Health		
Oral	Acute toxicity 5	H303
Dermal	Acute toxicity 5	H313
Carcinogenicity	Carcinogenicity 2	H351
Environment		
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 if swallowed.

Or in contact with skin.

Suspected of causing cancer.

Label elements:



Signal word: Warning.

Hazard statements:

H303: May be harmful if swallowed.

H313: May be harmful in contact with skin.
H351: Suspected of causing cancer.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements:
P203: Obtain, read and follow all safety instructions before use.
P273: Avoid release into the environment.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+P302+P317: IF SWALLOWED or ON SKIN: Get medical help.
P318: If exposed or concerned: Get medical advice.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of content/container to suitable landfill in accordance with local regulations.
Special labelling of certain mixtures:
Blue band.
Other hazards:
None known.
Toxicity:
Classification according to GHS: Category 5

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Iprodione	36734-19-7	50%	Carcinogenicity 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Ethoxylated Isodecyl Alcohol	78330-20-8	<1 %	Acute Toxicity 4 (H302) Eye Damage 1 (H318)
Preservative	77-92-9	<1%	Eye irritation 2 (H319) STOT SE 3 (H335)

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. If exposed or concerned, get medical advice.

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

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thoroughly with water and non-abrasive soap. **Obtain medical attention** if irritation persists.

Eyes: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention if irritation persists.

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

Anticipated acute effects: May be harmful if swallowed or in contact with skin.

Anticipated delayed effects: Suspected of causing cancer.

Most important symptoms/effects: When large amounts are swallowed, may cause symptoms such as: nausea, vomiting, abdominal pain and loss of co-ordination.

Advice to physician: There is no specific antidote available. Treat symptomatically. Anticonvulsant therapy is not appropriate.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.

Specific hazards: None known.

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. Remain upwind of fire. Avoid inhaling hazardous vapours and 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 protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin. Do not breathe in spray mist or fumes/vapours. Ventilate area of spill or leak, especially in contained areas.

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 unprotected personnel and animals.

Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water. This 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 watercourses should be reported immediately to the police and the Department of Water/Environmental Affairs).

Methods and Materials for Containment: Contain spilled product by diking area with sand or damp earth.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, damp 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. 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: May be harmful if swallowed. Avoid contact with skin. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers tightly 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 product. 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.

Storage:

Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store the product in its original labelled container, tightly closed in an isolated dry, cool and well-ventilated area. Avoid excess heat.

Do not store next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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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 ventilation systems to maintain airborne concentrations below OELs 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 with cartridges/canisters approved for organic vapours.

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

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employees must wear appropriate protective impervious clothing, rubber boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White homogeneous viscous liquid.

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 Flammable.

Upper/lower explosion limits: Not explosive.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density/Relative density: 1.049.8 g/ml. @ 20°C.

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 two 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: Unlikely to occur.

Conditions to avoid: Extreme heat or exposure to flames, strong bases, strong reducing agents.

Hazardous decomposition products: Alcohols. carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS.

Oral LD₅₀ (24 h) > 3600 mg/kg (rat).

Dermal LD₅₀ (24 h) > 3600 mg/kg (rat).

Inhalation LC₅₀ (4 h) > 9 mg/l (rat).

Skin Irritation/Corrosion: Not classified.

Eye Damage/Irritation: Not classified.

Skin Sensitization: Not classified.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Suspected of causing cancer.

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:

Inhalation: Not classified.

Eye contact: Non-irritant to eyes.

Skin contact: May be harmful in contact with skin.

Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms with long lasting effects.

ECOTOXICITY DATA:

Iprodione.

Fish:

LC ₅₀ (96 h)	Rainbow trout	4.1 mg/l.
	Bluegill sunfish	3.7 mg/l.

Daphnia:

EC ₅₀ (48 h)		0.7 mg/l.
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Algae:

EC ₅₀ (120 h)	<i>Selenastrum capricornutum</i>	1.9 mg/l.
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Birds:

Acute oral LD₅₀ Bobwhite quail >2000 mg/kg.
 Mallard ducks >10 400 mg/kg.

Bees:

(LD₅₀, mg/bee) (contact) >400 µg/bee.

Worms:

LC₅₀ Earthworms >1000 mg/kg soil.

ENVIRONMENTAL EFFECTS:

Plants: Metabolism studies in cereals, fruit, leafy and oily crops showed that iprodione is the dominant component of the total residue resulting from foliar application.

Persistence and degradability: Rapidly metabolised in soil, with formation of CO₂. DT₅₀ (lab) 20 – 80 d; (field) 919 d.

Bio-accumulative Potential: In rats, ruminants and birds, iprodione is rapidly eliminated. It also undergoes extensive metabolism, by hydrolysis and rearrangement reactions. Rate of degradation increases with successive treatments; hence accumulation does not occur.

Mobility in soil: K_{oc} 202 – 543.

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 containers may be taken to a registered waste disposal site or incineration plant. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Container: Emptied containers retain vapour and product residues. Do not re-use the empty container for any other purpose. Triple rinse empty containers by inverting the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to one third of that of the container. Add the rinsing's to the contents of the spray tank before recycling or destroying the container in the prescribed manner. Puncture the triple rinsed container and dispose of via an approved collector or recycler (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.

14. TRANSPORT INFORMATION

UN Number: 3082
Road Transport ADR/IRD:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, N.O.S (Iprodione 500 g/l)

Maritime Transport IMDG/IMO:

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

Marine Pollutant (Y/N): YES

Air Transport IATA/ICAO:

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

Special / Environmental Precautions: Wedge drums tightly to avoid movement.

Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

15. REGULATORY INFORMATION

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

OHS 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 50, 100, 150, 250 and 500 millilitres and 1, 5, 10, 20 and 25 litres plastic containers and labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

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IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD₅₀ 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.

OEL/RL: Occupational exposure limit-recommended limit.

PEL: Permissible Exposure Limits.

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.

END OF DOCUMENT

Compiled: November 2018

Reviewed: July 2022

Revision no.: (5)

Next revision: July 2027

For detailed information on revisions, contact the Registration holder.