

# VILLA CAPTIVO 360 FS

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** CAPTIVO 360 FS  
**Other identifier:** Imidacloprid + Tebuconazole 360FS  
**Recommended use:** Insecticide/Fungicide  
**Restrictions on use:** Agriculture

**Supplier:** Villa Crop Protection (Pty) Ltd.  
 PO Box 10413, Aston Manor, 1630,  
 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:

Envirosure. +27 31 205 4918

(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

### Villa Crop Protection Emergency number:

**National Safety, Health and Environmental Manager:**  
 +27 63 698 0668

## 2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	H-statement
<b>Health</b>		
Oral	Acute Tox. 5	H303
Dermal	Acute Tox. 5	H313
Inhalation	Acute Tox. 5	H333
Carcogenicity	Carc. 1B	H350
Reproductive toxicity	Repr. 2	H361d
<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:

Suspected of causing cancer and damage to the unborn child.

### Label elements:



**Signal word:** Danger

#### Hazard statements:

H303: May be harmful if swallowed.

H313: May be harmful in contact with skin.

H331: May be harmful if inhaled.

H350: May cause cancer.

H361d: Suspected of damaging the unborn child.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

#### Precautionary statements:

P202: Do not handle until all safety precautions have been read and understood.

P273: Avoid release into the environment.

P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

P308/313: If exposed or concerned: Get medical attention.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container in accordance with local regulations.

#### Special labelling of certain mixtures:

None known.

#### Other hazards:

None known.

#### Toxicity:

Classification according to GHS: Category 5

Classification according to WHO: II

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture

#### Composition:

Chemical Name	CAS	Conc. (m/v)	Classification EC 1272/2008
Imidacloprid	138261-41-3	35%	Acute Tox. 4 (H302) Aquatic acute 1 (H400) Aquatic chronic 1 (H410)
Tebuconazole	107534-96-3	1%	Acute Tox. 4 (H302) Repr. 2 (H350) Aquatic chronic

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			2 (H411)
Antifreeze	107-21-1	< 10%	Acute Tox. 4 (H302)
Blue Dye	94277-77-7	< 10%	Aquatic chronic 3 (H412)
Emulsifier	68551-12-2	< 5%	Skin irrit. 2 (H315) Eye Dam. 1 (H318) Aquatic acute 1 (H400)
Biocide	50-0-0	< 1%	Acute Tox. 3 (H301, H311, H331) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1B (H350)

## 5. FIRE-FIGHTING MEASURES

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

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

**Specific hazards:** Fires may produce irritating or poisonous vapours including compounds of carbon and nitrogen, hydrogen chloride and hydrogen cyanide.

**Special Fire Fighting Procedures:** Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel from areas downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. 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 bunker gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Avoid contact of skin and eyes with spilled product or contaminated surfaces. Do not breathe in fumes or spray mist.

**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 persons and animals.

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

**Methods and Materials for Clean-up:** Cover contained spill with an inert absorbent material such as sand, vermiculite, earth, silica gel or other appropriate material. 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. If spilled product

## 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. Seek medical attention if irritation persists.

**Skin:** Remove contaminated clothing and shoes. Gently wipe off excess chemical. Flush skin with large amounts of water and then wash thoroughly with soap and water, if available, wash with polyethylene glycol 400. Seek medical attention if skin irritation persists. Wash contaminated clothing before re-use.

**Eyes:** Flush eyes with clean water for at least 15 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.

**Anticipated acute effects:** Upon ingestion of large amounts: Apathetic state, depressed muscular tone, respiratory disturbances and trembling and muscular cramps.

**Anticipated delayed effects:** None known.

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

**Advice to physician:** Treat symptomatically and supportively. Check blood pressure and pulse rate regularly as bradycardia and hypotonia are possible. In case of significant ingestions, gastric lavage should be considered within 2 hours after ingestion. Use of activated charcoal and sodium sulphate is advised. No specific antidote known.

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comes into contact with water, contain contaminated water for later disposal. 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 skin and eyes. Ensure adequate ventilation during handling and use. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not handle broken packages 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 locked up in its original container in a dry, cool, well-ventilated area. Keep out of direct sunlight and away from excessive heat. Not to be stored next to foodstuffs, feed and water supplies. Keep out of reach of children, uninformed persons and animals. Avoid cross-contamination with other pesticides and fertilizers.

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

**Packaging material:** Plastic containers and lids.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Permissible concentration**

Components	Exposure limits	Type of exposure limit	Source
Imidacloprid	n/a	0.7 mg/m <sup>3</sup> (TWA)	OES
Tebuconazole	n/a	0.2 mg/m <sup>3</sup> (TWA)	OES
Monoethylene glycol	40 ppm	100 mg/m <sup>3</sup> (TWA)	OSHA PEL
Formaldehyde	0.75 ppm	n/a	OSHA PEL

**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 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 unless there is a concern for residual risk. 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 impervious protective gloves e.g. nitrile gloves, is recommended to prevent against skin contact. Dispose of when contaminated or perforated.

**Eye Protection:** The use of chemical safety goggles is recommended. Contact lenses are not protective eye devices.

**Skin and Body Protection:** Employee must wear standard coveralls and boots. If a higher risk of exposure is expected, it is recommended to use appropriate protective impervious clothing; boots and equipment to prevent repeated or prolonged 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 eye wash fountain or appropriate alternative within the immediate work area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Blue liquid, flowable concentrate.

**Odour:** Insignificant odour.

**pH (1% aqueous dilution):** 5.0 – 7.0.

**Melting point:** Not available.

**Freezing Point:** Not available.

**Boiling Point:** Not available.

**Flash Point:** Not available.

**Flammability:** Not available.

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

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

**Relative Vapour Density:** Not available.

**Density:** 1.13 g/ml.

**Solubility:** Suspends in water.

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

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

**Decomposition temperature:** Not available.

**Viscosity:** 600 – 1400 cPs.

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## 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:** Will not occur.

**Conditions to Avoid:** High temperatures, direct sunlight extreme heat or exposure to flames.

**Incompatible Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Can decompose at high temperatures and form toxic gases.

## 11. TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY:

**Based on experimental data**

**Oral LD<sub>50</sub> (24h) rat** 5000 mg/kg

**Dermal LD<sub>50</sub> (24h) rat** > 2000 mg/kg

**Inhalation LC<sub>50</sub> (4h) rat** > 5.709 mg/l

**Skin Irritation/Corrosion** Not classified as a skin irritant, rabbits.

**Eye Damage/Irritation:** Not classified as an eye irritant, rabbits.

**Skin Sensitization:** Product is not considered a skin sensitizer.

**Respiratory Sensitization:** There was no mortality during the study and the product is not anticipated to be toxic by inhalation.

**Based on GHS classification**

**Reproductive cell mutagenicity:** Not available.

**Carcinogenicity:** May cause cancer.

**Reproductive toxicity:** Suspected of damaging the unborn child.

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

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

**Aspiration hazard:** Not available.

**Chronic Effects** (other targets e.g. developmental): Not available.

**POTENTIAL ADVERSE EFFECTS:** Not available.

## 12. ECOLOGICAL INFORMATION

This product is considered a marine pollutant with long lasting effects.

### ECOTOXICITY DATA (based on active ingredients):

### Fish:

#### Imidacloprid

LC<sub>50</sub> (96h) Golden orf 237  
 mg/l.

Rainbow trout 211

mg/l.

#### Tebuconazole

LC<sub>50</sub> (96h) Rainbow trout 4.4  
 mg/l.

Bluegill sunfish 5.7

mg/l.

### Daphnia:

#### Imidacloprid

LC<sub>50</sub> (48h) 85  
 mg/l.

mg/l.

#### Tebuconazole

LC<sub>50</sub> (48h) 2.79  
 mg/l.

mg/l.

### Algae:

#### Imidacloprid

E<sub>r</sub>C<sub>50</sub> (72h) *P. subcapitata* >100  
 mg/l.

mg/l.

#### Tebuconazole

E<sub>r</sub>C<sub>50</sub> (72h) *P. subcapitata* 3.80  
 mg/l.

mg/l.

### Birds:

#### Imidacloprid

Acute oral LD<sub>50</sub> Japanese quail

31mg/kg.

Bobwhite quail 152

mg/kg.

Dietary LC<sub>50</sub> (5d) Bobwhite quail 2225  
 mg/kg.

Mallard ducks > 5000

mg/kg.

#### Tebuconazole

Acute oral LD<sub>50</sub> Japanese quail 2912  
 mg/kg.

Bobwhite quail 1988

mg/kg.

Dietary LC<sub>50</sub> (5d) Mallard ducks > 4816  
 mg/kg.

Bobwhite quail > 5000

mg/kg.

mg/kg.

### Bees:

#### Imidacloprid

Harmful to honeybees by direct contact, but safe when exposure is avoided.

#### Tebuconazole

LD<sub>50</sub> (48h, oral) > 83  
 ug/bee.

LD<sub>50</sub> (48h, contact) > 200  
 ug/bee.

LD<sub>50</sub> (48h, contact) > 200  
 ug/bee.

ug/bee.

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**Worms:**

**Imidacloprid**

LC<sub>50</sub> *Eisenia foetida* 10.7 mg/kg dry soil.

**Tebuconazole**

Acute LC<sub>50</sub> (14d) *Eisenia foetida* 1381 mg/kg dry soil.

**Plants:**

Non-toxic when applied in accordance with label recommendations.

**ENVIRONMENTAL EFFECTS:**

**Imidacloprid**

The half-life of **Imidacloprid** in soil is 48-190 days, depending on the amount of ground cover (it breaks down faster in soils with plant ground cover than in fallow soils). Organic material aging may also affect the breakdown rate of **Imidacloprid**. **Imidacloprid** is degraded stepwise to the primary metabolite 6-chloronicotinic acid, eventually breaking down to carbon dioxide. The chemical is moderately soluble, and has moderate binding affinity to organic materials in soils. However, there is a potential for the compound to move through sensitive soil types including porous, gravelly, or cobbly soils, depending on irrigation practices. The half-life in water is much greater than 31 days at pH 5, 7 and 9.

**Tebuconazole**

Soil/Environment The degradation of **tebuconazole** in soil was slow in laboratory studies. Under field conditions, the compound degraded much more rapidly, and did not accumulate in long-term studies (3–5 y). Since no residues could be detected in deeper soil layers of these and other studies, and adsorption/desorption studies indicated a low mobility in the soil, groundwater contamination through leaching can be excluded. In natural waters, hydrolysis and indirect photolysis occur; in a pond study, the compound dissipated from the water body with DT50 4–6 w. Low vapour pressure and strong adsorption result in low volatilisation into the air.

**Persistence and degradability:** Not determined.

**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. Avoid release into the environment. 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. This product can be

taken to a licensed waste disposal site or incineration plant.

**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 a third of that of the container. Add the rinsings to the contents of the spray tank before recycling or destroying the container by perforation and flattening. Where recycling is not possible, this container can be taken to a licensed waste disposal site or incineration plant. Comply with local legislation applying to waste disposal.

## 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. (Imidacloprid + Tebuconazole 360 g/l)

**Maritime Transport IMDG/IMO:**

Class: 9  
 Packaging group: III  
 UN Proper Shipping Name: Environmentally hazardous substance, Liquid, N.O.S. (Imidacloprid + Tebuconazole 360 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. (Imidacloprid + Tebuconazole 360 g/l).

**Special/Environmental Precautions:** Refer to sections 6 to 8 of this SDS.

**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

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### 16: OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10, 12, 15, 20, 25, 50 and 200 litres plastic containers, bottles or drums labelled according to South African regulations and guidelines.

**Additional H-statements (formulants):**

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H311: Toxic in contact with skin.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H331: Toxic if inhaled.

H341: Suspected of causing genetic defects.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

**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.