

CAPTIVO 360 FS

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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

Supplier: Universal Crop Protection (Pty) Ltd.
Co. Reg. No.: 1983/00818/07
PO Box 801,
Kempton Park, 1620, 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-statement
Health		
Oral	Acute Toxicity 4	H302
Dermal	Skin Sensitization 1	H317
Reproductive toxicity	Reproductive toxicity 2	H361d
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:
Harmful if swallowed.
May cause an allergic skin reaction.
Suspected of damaging the unborn child.

Label elements:



Signal word: Warning

Hazard statements:

H302: Harmful if swallowed.
H317: May cause an allergic skin reaction.
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:

P203: Obtain, read and follow all safety instructions before use.
P264: Wash hands and face thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release into the environment.
P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P301+P317: IF SWALLOWED: Get medical help.
P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P318: IF exposed or concerned, get medical advice.
P330: Rinse mouth.
P333+P317: If skin irritation or rash occurs: Get medical help.
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:

None known.

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/v)	Classification EC 1272/2008
Imidacloprid	138261-41-3	35%	Acute Toxicity 3 (H301) Aquatic Acute 1 (H400)

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			Aquatic Chronic 1 (H410)
Tebuconazole	107534-96-3	1%	Acute Toxicity 4 (H302) Reproductive toxicity 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Etho-propoxylated Tristyrylphenol	99734-09-5	< 5%	Aquatic Chronic 3 (H412)
Ethoxylated fatty alcohol	68131-39-5	< 5%	Aquatic Acute 1 (H400) Aquatic Chronic 2 (H412)
Mono Ethylene Glycol	107-21-1	< 10%	Acute Toxicity 4 (H302)
Proxel GXL	Mixture	< 0.5%	Corrosive to metals 1 (H290) Acute Toxicity 4 (H302) Skin corrosion 1 (H314) Skin Sensitization 1 (H317) Eye damage 1 (H318) Specific Target Organ Toxicity-Single Exposure 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. 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 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing.

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:

Harmful if swallowed. May cause an allergic skin reaction. Suspected of damaging the unborn child.

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.

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: 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. Ventilate area of spill or leak, especially in contained areas.

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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. This product is classified as 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 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 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 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: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well-ventilated area. Avoid excessive heat. Not to be stored 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

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Monoethylene glycol	40 ppm	100 mg/m ³ TWA	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 to prevent against eye contact. 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.

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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: 1.109 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.

10. STABILITY AND REACTIVITY

Chemical Stability: The product is **stable for 18 months** 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 GHS classification

Oral LD₅₀ (24h) >1300 mg/kg (rat).

Dermal LD₅₀ >5000 mg/kg (rat).

Inhalation LC₅₀ (4h) > 5.00 mg/l (rat).

Skin Irritation/Corrosion: Not classified.

Eye Damage/Irritation: Not classified.

Skin Sensitization: May cause an allergic skin reaction.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Suspected of damaging the unborn child.

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:

Ingestion: Harmful if swallowed.

Skin contact: May cause an allergic skin reaction.

12. ECOLOGICAL INFORMATION

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

ECOTOXICITY DATA (based on active ingredients):

Fish:

Imidacloprid

LC ₅₀ (96h)	Golden orf	237 mg/l.
	Rainbow trout	211 mg/l.

Tebuconazole

LC ₅₀ (96h)	Rainbow trout	4.4 mg/l.
	Bluegill sunfish	5.7 mg/l.

Daphnia:

Imidacloprid

LC ₅₀ (48h)		85 mg/l.
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Tebuconazole

LC ₅₀ (48h)		2.79 mg/l.
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Algae:

Imidacloprid

ErC ₅₀ (72h)	<i>P. subcapitata</i>	>100 mg/l.
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Tebuconazole

ErC ₅₀ (72h)	<i>P. subcapitata</i>	3.80 mg/l.
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Birds:

Imidacloprid

Acute oral LD ₅₀	Japanese quail	31mg/kg.
	Bobwhite quail	152 mg/kg.
Dietary LC ₅₀ (5d)	Bobwhite quail	2225 mg/kg.
	Mallard ducks	>5000 mg/kg.

Tebuconazole

Acute oral LD ₅₀	Japanese quail	2912 mg/kg.
	Bobwhite quail	1988 mg/kg.
Dietary LC ₅₀ (5d)	Mallard ducks	>4816 mg/kg.
	Bobwhite quail	> 5000 mg/kg.

Bees:

Imidacloprid

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

Tebuconazole

LD ₅₀ (48h, oral)		>83 ug/bee.
LD ₅₀ (48h, contact)		>200 ug/bee.

Worms:

Imidacloprid

LC ₅₀	<i>Eisenia foetida</i>	10.7 mg/kg soil.
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Tebuconazole

Acute LC ₅₀ (14d)	<i>Eisenia foetida</i>	1381 mg/kg soil.
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ENVIRONMENTAL EFFECTS:

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Imidacloprid

Persistence and degradability: 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.

Bio-accumulative potential: The chemical is moderately soluble and has moderate binding affinity to organic materials in soils.

Mobility in soil: 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

Persistence and degradability: 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 weeks. Low vapour pressure and strong adsorption result in low volatilisation into the air.

Bio-accumulative Potential: Not determined.

Mobility in soil: Low mobility.

Plants: Non-toxic when applied in accordance with label recommendations.

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 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). 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, 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: 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:

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.

Other hazard statements, abbreviations and explanations:

H290: May be corrosive to metals.

H301: Toxic if swallowed.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting effects.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

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.

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

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For detailed information on revisions, contact the Registration holder.