

UNIVERSAL FISSION 520 SC

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FISSION 520 SC
Other identifier: Pyrimethanil, Trifloxystrobin 520 SC
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) 3962233
Fax: (011) 3964666
Website: 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-statements
Health		
Oral	Acute Tox. 5	H303
Dermal	Acute Tox. 5	H313
Inhalation	Acute Tox. 5	H333
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:
 None known.

Label elements:



Signal word: Warning.
Hazard statements:
 H303: May be harmful if swallowed.
 H313: May be harmful in contact with skin
 H333: May be harmful if inhaled.
 H400: Very toxic to aquatic life.
 H410: Very toxic to aquatic life with long lasting effects.
Precautionary statements:
 P273: Avoid release to the environment.
 P391: Collect spillage.
 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 5.
 Classification according to WHO: II.
 Classification according to GPIC: III.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/v %)	Classification EC 1272/2008
Pyrimethanil	53112-28-0	40 %	Aquatic Chronic 2 (H411)
Trifloxystrobin	14141517-21-7	12 %	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Dispersant	25155-30-0	< 10 %	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Eye Dam. 1 (H318)
Anti-freeze	107-21-1	< 10%	Acute Tox. 4 (H302)
Wetting agent	9002-92-0	< 5%	Acute Tox. 4 (H302) Eye Irrit. 2 (H319)

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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 irritation develops consult a doctor.

Inhalation: Move victim to fresh air and remove source of contamination if safe to do so. Keep affected person warm and at rest. Obtain medical attention if irritation develops.

Skin: Remove contaminated clothing and shoes. Wash skin gently and thoroughly with cold water and non-abrasive soap. Obtain medical attention if irritation persists.

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 develops.

Ingestion: If the person is alert, have them drink large amounts of water. Do not give anything by mouth to an unconscious person. Do NOT induce vomiting unless instructed to do so by a poison control centre or doctor. Seek medical attention or call a poison control centre for treatment advice immediately.

Anticipated acute effects: None known.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician: There is no specific antidote available. Treat symptomatically and supportively. If a significant amount has been ingested, the administration of activated charcoal and sodium sulfate is recommended.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with water spray, carbon dioxide, sand or dry foam.

Unsuitable Extinguishing Media: High volume water jet.

Specific hazards: Thermal decomposition or combustion may result in the release of hazardous gases such as hydrogen cyanide, hydrogen fluoride, carbon monoxide and oxides of nitrogen.

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 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 with eyes and skin. Do not breathe in spray or fumes. 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 as 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 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, earth or silica gel.

Methods and Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, earth, saw dust, silica gel or other appropriate non-combustible 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. Add the solution to the drums already collected. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling: Precautions for safe handling: Avoid contact with eyes and skin and inhalation of mists and vapours. Do not handle broken containers 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 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.

Storage: Conditions for safe storage: Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container tightly closed, in a dry, cool and well-ventilated area. Avoid excessive heat and keep out of direct sunlight. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

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Packaging material: Plastic containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Pyrimethanil	5.6 mg/m ³	TWA	OES
Trifloxystrobin	2.7 mg/m ³	Skin Sensitizatoin	OES

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. 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: Wear a face shield or safety goggles when handling the concentrate and when applying the product. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate protective clothing; 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 mixture; 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 to grey liquid suspension.

Odour: Slight characteristic odour.

pH (1% aqueous dilution): 5.0 – 8.0 at 20°C.

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: 1.11 g/cm³ at 20°C.

Solubility: Suspends 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: None known.

Conditions to Avoid: Avoid extremes of heat or storage in direct sunlight.

Incompatible Materials: None known.

Hazardous Decomposition Products: None known.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Based on experimental data:

Oral LD₅₀ rat 5000 mg/kg.

Dermal LD₅₀ rat > 2000 mg/kg.

Inhalation LC₅₀ (4 h) rat > 5.158 mg/ℓ.

Skin Irritation/Corrosion: Not a skin irritant.

Eye Damage/Irritation: Not an eye irritant.

Skin Sensitization: Not positive for skin sensitization.

Respiratory Sensitization: Not available.

Reproductive cell mutagenicity: Not available.

Carcinogenicity: Not available.

Reproductive toxicity: Not available.

Specific target organ toxicity – single exposure: Not available.

Specific target organ toxicity – repeated exposure: Not available.

Aspiration hazard: Not available

Chronic Effects: Not available.

POTENTIAL ADVERSE EFFECTS: Not available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA (based on active ingredients):

Fish:

Pyrimethanil

LC₅₀ (96 h) Mirror carp >35.4 mg/ℓ

Rainbow trout >10.6 mg/ℓ

Trifloxystrobin

LC₅₀ (96 h) Rainbow trout 0.015 mg/ℓ

Bluegill sunfish 0.054 mg/ℓ

Daphnia:

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Pyrimethanil
 LC₅₀ (48 h) 2.9 mg/ℓ.

Trifloxystrobin
 LC₅₀ (48 h) 0.016 mg/ℓ.

Algae:

Pyrimethanil
 E_bC₅₀ (96 h) 1.2 mg/ℓ.
 E_rC₅₀ (96 h) 5.84 mg/ℓ.

Trifloxystrobin
 E_bC₅₀ *S subspicatus* 0.0053 mg/ℓ.

Birds:

Pyrimethanil
 Acute oral LD₅₀ Mallard ducks & Bobwhite quail >2000 mg/kg.
 LC₅₀ (5 d) Mallard ducks & Bobwhite quail >5200 mg/kg.

Trifloxystrobin
 Acute oral LD₅₀ Mallard ducks >2250 mg/kg
 Bobwhite quail >2000 mg/kg.
 Dietary LC₅₀ Mallard ducks & Bobwhite quail >5050 ppm.

Bees:

Pyrimethanil
 LD₅₀ (oral and contact) >100 mg/bee.
Trifloxystrobin
 LD₅₀ (oral and contact) >200 mg/bee.

Worms:

Pyrimethanil
 LC₅₀ (14 d) Earthworms 625 mg/kg soil.
Trifloxystrobin
 LC₅₀ (14 d) > 1000 mg/kg soil.

Plants:

Pyrimethanil
 Little metabolism occurs in fruit; residues at maturity consist essentially of unchanged parent compound only.

Trifloxystrobin
 Metabolic profile is similar for a range of crops. Based on wheat, apple, cucumber and sugar beet metabolism data, **trifloxystrobin** is considered as the residue of concern for food and feed commodities of plant origin.

ENVIRONMENTAL EFFECTS:

Persistence and degradability:

Pyrimethanil
 DT₅₀ in laboratory studies 27–82 d; field studies indicate rapid degradation, DT₅₀ 7–54 d; 2-amino-4,6-dimethylpyrimidine is the main soil metabolite. K_{oc} 265–751. Low potential for leaching to groundwater; field studies show minimal movement of pyrimethanil into deeper soil layers. **Pyrimethanil** disappears rapidly from surface water and moderately adsorbs to the sediment, from which it is further degraded.

Trifloxystrobin

ENVIRONMENTAL EFFECTS:

Persistence and degradability:

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 DT₅₀ in laboratory studies 27–82 d; field studies indicate rapid degradation, DT₅₀ 7–54 d; 2-amino-4,6-dimethylpyrimidine is the main soil metabolite. K_{oc} 265–751. Low potential for leaching to groundwater; field studies show minimal movement of pyrimethanil into deeper soil layers. **Pyrimethanil** disappears rapidly from surface water and moderately adsorbs to the sediment, from which it is further degraded.

Trifloxystrobin

ENVIRONMENTAL EFFECTS:

Persistence and degradability:

Pyrimethanil
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Trifloxystrobin

Dissipates rapidly from soil and surface water. Soil DT₅₀ 4.2–9.5 d. K_{oc} 1642–3745. No leaching potential. In water, DT₅₀ 0.3–1 d, DT₉₀ 4–8 d.

Bio-accumulative Potential: Actives do not bioaccumulate.

Mobility in soil: Not determined.

Other adverse effects: None known.

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. The product may be taken to a registered 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 in the prescribed manner. Destroy the container by perforating and flattening and dispose of through an approved waste disposal site, incineration plant or recycling company. Where possible, recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 3082

Road Transport ADR/IRD:

Class: 9
 Packaging group: III
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.
(Pyrimethanil + Trifloxystrobin: 520 SC)

Maritime Transport IMDG/IMO:

Class: 9
 Packaging group: III
 Shipping name: Environmentally Hazardous Substance, Liquid, N.O.S.
(Pyrimethanil + Trifloxystrobin: 520 SC)

Marine Pollutant (Y/N): Yes

Class: 9
 Packaging group: III

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Shipping name: Environmentally Hazardous
Substance, Liquid, N.O.S.
(Pyrimethanil + Trifloxystrobin:
520 SC)

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, 2, 5, 10 and 20 litres plastic containers, labelled according to South African regulations and guidelines.

Additional H-statement (s) (formulants)

H302: Harmful if swallowed.

H312: Harmful in contact with skin.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H411: Toxic 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.

END OF DOCUMENT

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For detailed information on revisions, contact the Registration holder.