

UNIVERSAL UNITE 500 WDG

MATERIAL SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Unite 500 WDG
 Fungicide
UN No.: 3077
Company: 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

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. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name: Trifloxystrobin
Chemical Name: methyl (E)-methoxyimino-{(E)- α -[1-(α,α,α -trifluoro-m-tolyl)ethylideneaminoxy]-o-tolyl}acetate. (IUPAC)
CAS No.: [61213-25-0]
Chemical Family: Strobilurin
Chemical Formula: C₂₀H₁₉F₃N₂O₄ (Mol. wt.: 408.4)
Formulation: Trifloxystrobin 500 WDG
 Water dispersing granule
Use / Mode of Action: Mesostemic, broad-spectrum fungicide with mainly preventive activity. Particular characteristics are redistribution by superficial vapour movement and surface water, good rain-fastness, and residual activity.

Hazardous Ingredient:
 Trifloxystrobin 500 %
 Inerts 500 %

SYMBOLS: Xi, Xn, N
RISK-PHASE(S): R 36/37, R 50, R 53

3. HAZARD IDENTIFICATION

Toxicity class: WHO III. Slightly hazardous.
 Cause irritation to the skin and eyes.
 May cause skin sensitisation.
 Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES AND PRECAUTIONS

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. **Trifloxystrobin** may cause eye pain, pruritus, skin redness, weakness, headache, and dizziness.

Inhalation: Immediately remove source of contamination or move victim to fresh air. If breathing has stopped, perform artificial respiration and administer oxygen. Avoid mouth-to-mouth resuscitation. Keep person warm and at rest. Treat symptomatically and supportively as and when required. **Seek medical advice immediately.**

Skin contact: Remove contaminated clothing, shoes and leather goods immediately. Gently wipe off excess chemical. Wash skin gently and thoroughly with non-abrasive soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15 to 20 minutes). Seek medical advice if necessary.

Eye contact: Flush eyes immediately with large amounts of gently flowing cold water or normal saline solution, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15 to 20 minutes). If irritation persists, get medical attention.

Ingestion: Have victim rinse mouth thoroughly with water. **Do not induce vomiting, due to the aromatic solvent. Seek medical advice immediately.** If the person is alert and respiration is not depressed, give large quantity of water to drink. Never give anything by mouth to an unconscious person. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen. Qualified medical personnel should perform administration of gastric lavage or oxygen.

Advice to physician: Treat symptomatically and give supportive therapy; administer activated charcoal.

5. FIRE FIGHTING MEASURES

Fire/Explosion hazard:

Non-Flammable. Flash point: 238.256 °C

Extinguishing agents: Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream

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may cause spreading. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Firefighting: Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.

Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind.

Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal.

Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways.

Do not use high volume water jet, due to contamination risk. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Personal protective equipment: Fire may produce irritating or poisonous vapours or gases (oxides of chlorine and sulphur) or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES (Spillage)

Personal precautions: Avoid contact with skin and eyes. Do not breathe in fumes. For personal protection see Section 8. **Environmental precautions:** Do not apply on directly to water, to areas where surface water is present or to intertidal areas below the mean mark. Do not contaminate water by disposal of equipment washwaters. See "Storage, shipment and Disposal" section. In case of spills properly dispose of contaminated materials.

Occupational spill: Do not touch-spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals.

For spills: Soak up with absorptive material such as damp earth or sand or other suitable non-combustible absorbent material. Place the material into a clean, dry container and cover for subsequent disposal. In situations where product comes in contact with water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorptive material. Do not flush spilled material into drains. Keep spectators away and upwind. To decontaminate spill area, tools and equipment, wash with a suitable solution (i.e. organic solvent, detergent bleach or caustic). Add the solution to the drums already collected. Label drums with its content and dispose it in accordance with local regulations.

Open burning or dumping of this material is prohibited. Do not get water inside containers.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Harmful if swallowed. Avoid inhalation and contact with eyes and skin. Use with adequate ventilation. Do not handle broken packages without protective equipment. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Seek medical advice.

Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Worker should shower at the end of each work day. Launder all clothing before it is re-used again.

Storage: Store in its original container in dry, cool, well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs and water supplies.

Keep out of reach of children, uninformed persons and animals. Do not contaminate other pesticides and fertilizers. Protect from frost.

Storage stability: Stable for a period of 2 years under normal warehouse conditions.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

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. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT: No special equipment is usually needed when handling small quantities. Use the following instruction when handling bulk.

Respirator: An approved full-face respirator suitable for protection from spray or mists of pesticides is required. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

Clothing: Employee must wear appropriate protective (impervious) clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance. Do not wear leather clothing.

Gloves: Employee must wear appropriate chemical resistant protective gloves to prevent contact with this substance.

Eye protection: The use of chemical resistant goggles or face shield.

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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Granules.
Colour: Light brown.
Odour: Weak characteristics odour.
Relative density: 0.60 g/cm³ at 25 °C.
Solubility in water: Disperses.
Flash point: 238.256 °C.
Flammability: Non-Flammable.
pH of 1 % aqueous dilution: 8.5 to 10.5.
Explosion properties: Not explosive.
Oxidation properties: Not oxidative.

10. STABILITY AND REACTIVITY

Stability: Considered stable. Unlikely to decompose under normal storage conditions.
Condition to avoid: The product should be kept in a cool place, preferably below 30 °C. Keep containers and surrounding areas well ventilated. Keep away from Sources of sparks or ignition. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatibilities: Oxidising agents.
Hazardous decomposition: In a fire, formation of hydrogen cyanide, Hydrogen fluoride, carbon monoxide and nitrogen oxides can be expected.
Hazardous Polymerisation: Will not occur.

11. TOXICOLOGICAL INFORMATION

Formulation:
Acute oral LD₅₀: >2000 mg/kg
Acute dermal LD₅₀: >2000 mg/kg
Acute inhalation LC₅₀: >4650 mg/m³ (tech.)
Acute skin irritation: Slightly skin irritant.
Acute eye irritation: Slightly eye irritation
Sensitization: May cause skin sensitisation in case of excessive exposure.
Teratogenicity/ Development: Negative.
Mutagenicity: Negative.
Carcinogenicity: non-carcinogenic.
Chronic: NOEL NOAEL (2 y) for rats 9.8 mg/kg b.w. daily (value used by EU); (2 generation for rats) 3.8 mg/kg b.w. daily.
ADI/RfD: (JMPR) 0.04 mg/kg b.w. [2004] (tech.)
Toxicity class: WHO III.

12. ECOLOGICAL INFORMATION

In animals: Rapidly absorbed (60% in 48 h) and rapidly and extensively excreted (up to 96% in 48 h) in urine and faeces. Extensively and rapidly metabolised, by O-

demethylation, oxidation and conjugation, and quickly and completely eliminated from the body.

In plants: 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.

In the soil: 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.

ECOTOXICOLOGY:

Birds:

LD₅₀ for bobwhite quail >2000, mallard ducks >2250 mg/kg
 LC₅₀ for bobwhite quail and mallard ducks >5050 ppm

Fish: Toxic to aquatic organisms

LC₅₀ (96 hours): for rainbow trout 0.015 mg/l
 Bluegill sunfish 0.054 mg/l

Daphnia: Very toxic to Daphnia.

LC₅₀: (48 h) 0.016 mg/l

Bees: Not hazardous to bees

LD₅₀: (oral and contact) >200 µg/bee

Earthworms:

LC₅₀ *Scenedesmus subspicatus* 0.0053 mg/l.

13. DISPOSAL CONSIDERATION

Pesticide disposal: Open dumping or burning of this pesticide is prohibited. Never pour untreated waste or surplus products 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.

Emptied containers/bags retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

Empty the container/bag of excess product into the mixing tank or spray tank of the applicator. Destroy the emptied containers/bags by perforation and flattening. Bury in an approved dumpsite. Do not re-use the empty container/bag for any other purpose. Comply with any local legislation applying to disposal.

Prevent contamination of food, feedstuffs, drinking water and eating utensils.

14. TRANSPORT INFORMATION

UN No.: 3077

Road Transport ADR/IRD:

Class: 9
 Packing group: III
 Shipping name: Environmentally Hazardous Substance, Solid, N.O.S.
Trifloxystrobin 500 g/kg

Maritime Transport IMDG/IMO:

Class: 9

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Packing group: III
 Shipping name: Environmentally Hazardous Substance, Solid, N.O.S.
Trifloxystrobin 500 g/kg

END OF DOCUMENT

Compiled: July 2011
Reviewed: June 2019
Revision no.: (2)
Next revision date: June 2024

For detailed information on revisions, contact the Registration holder.

15. REGULATORY INFORMATION

Symbol: Xi, Xn, N
Indication of danger: Irritant, Harmful and Environmentally Hazardous Substance.

Risk phrases:
R 20/22 Harmful by inhalation and if swallowed.
R 36/37/38 Irritation to eyes, respiratory system and skin.
R 43 May cause sensitisation by skin contact.
R 50 Very toxic to aquatic organisms,
R 53 May cause long-term adverse effects in the aquatic environment.

Safety phrases:
S 1/2 Keep locked up and out of the reach of children.
S 3/7/9 Keep container tightly closed in cool, well-ventilated place
S 13 keep away from food, drinks and animal feedingstuffs.
S 15 keep away from heat
S 24/25 Avoid contact with skin and eyes.
S 29/35 Do not empty into drains; dispose of this material and its container in a safe way
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of an accident or if you feel unwell, seek for medical advice
S 60 This material and its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to instructions/ Safety data sheets

16. OTHER INFORMATION

Packing and Labelling: Packed in 500 g, 1, 2, 5, 10, 15, 20, 25 and 50 kg plastic containers/bags and labelled according to the South African regulations and guidelines.

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 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.