

VILLA TERBUWEED 600 WDG

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: TERBUWEED 600 WDG
Other identifier: Terbuthylazine 600 WDG
Recommended use: Herbicide
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

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



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 into the environment.
 P391: Collect spillage.
 P501: Dispose of contents/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: Cat. 5
 Classification according to WHO: Cat. III
 Classification according to GPIC (Active): Cat. U

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:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture.

Composition:

Chemical Name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Terbuthylazine	5915-41-3	60 %	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

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.
Inhalation Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.

VILLA TERBUWEED 600 WDG

SAFETY DATA SHEET

Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and 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. Obtain 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.
- May be harmful in contact with skin.
- May be harmful if inhaled.

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Advice to physician Treat symptomatically and supportively. No specific antidote known. If large amounts have been ingested, perform gastric lavage and administer activated charcoal.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with water spray, carbon dioxide, dry powder, or alcohol-resistant foam.

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

Specific hazards: Combustion may lead to the production of hazardous fumes such as carbon and nitrogen oxides and chlorine compounds.

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. Do not breathe in spray mist or dust. 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 will 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 picking up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal. Do not create a powder cloud by using a brush or compressed air. 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. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: May be harmful if swallowed. Avoid contact with eyes. Ensure adequate ventilation during handling and use. 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 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 and direct sunlight. Not to be stored

VILLA TERBUWEED 600 WDG

SAFETY DATA SHEET

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 and bags.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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 dust mask or NIOSH approved air-purifying respirator.

Hand Protection: The use of chemically protective 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: Employee must wear appropriate protective 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: Off-white to white Water Dispersible Granule.

Odour: Characteristic.

pH (1% aqueous dilution): 6.0 to 9.0.

Melting point: Not available.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not applicable.

Flammability: Non-flammable.

Vapour Pressure (mm Hg): Not available

Relative Vapour Density: Not available.

Density/Relative density: 1.127 g/kg.

Solubility: Disperses 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: Extreme heat or exposure to flames. Avoid metal packaging.

Incompatible Materials: Avoid contact with strong acids, strong alkalis, oxidizers or any other type of reactive material.

Hazardous Decomposition Products: Toxic gases may be released when the product decomposes on heating such as carbon and nitrogen oxides as well as chlorine compounds.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS.

Oral LD₅₀ (24 h) rat >2500 mg/kg.

Dermal LD₅₀ (24 h) rat >3200 mg/kg.

Inhalation LC₅₀ (4 h) rat >8.6 mg/l.

Skin Irritation/Corrosion: Not available.

Eye Irritation/Corrosion: Not available.

Skin Sensitization: Not available.

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.

VILLA TERBUWEED 600 WDG

SAFETY DATA SHEET

Chronic Effects: Not available.
POTENTIAL ADVERSE EFFECTS:
Inhalation: May be harmful if inhaled.
Skin contact: May be harmful in contact with skin.
Eye contact: Not available.
Ingestion: May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

This product is very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

ECOTOXICITY DATA: Active ingredient.

Fish:
 LC₅₀ (96 h) Rainbow trout 2.2 mg/l
 Bluegill sunfish 52 mg/l

Daphnia:
 EC₅₀ (48 h) >69.3 mg/l

Algae:
 EC₅₀ (72 h) *Scenedesmus subspicatus* 0.016 mg/l

Birds:
 Acute oral LD₅₀ Ducks and quail >1000 mg/kg.
 Dietary LC₅₀ (8 d) Ducks and quail >5620 ppm.

Bees:
 LD₅₀ >200 µg/bee.
 Oral and contact

Worms:
 LC₅₀ (14 d) Earthworms >283 - 1000 mg/kg soil.

Plants: Triazine-tolerant plants (e.g. maize) rapidly dechlorinate terbuthylazine to hydroxy-terbuthylazine. Various amounts of de-ethylated and hydroxy de-ethylated metabolites are produced, depending on the plant species.

ENVIRONMENTAL EFFECTS:

Persistence and degradability: In aerobic soils, dissipation is mainly due to microbial activity with the formation of metabolites by de-ethylation and hydroxylation, with eventual ring cleavage, and the formation of non-extractable residues (8-27% after 98 d). Median DT₅₀ (field) 17.4 (6.5-149, 9 sites). Adsorption on soils is medium K_{Foc} 224 (162-333, 12 soils), median K_F 3.0 (0.3-25.2, 12 soils). Terbuthylazine is only slightly mobile. In water-sediment systems, terbuthylazine dissipates with a DT₅₀ of 33-73 d in the whole system.

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. 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 may be taken to a registered waste disposal site or incineration plant.

Container: Emptied containers retain dust and product residues. Do not re-use the empty container for any other purpose. Empty containers by inverting the empty container over the spray or mixing tank. Thereafter, rinse the container three times with a volume of water equal to a minimum of one third of that of the container. Destroy the container by perforating and flattening and dispose of through an approved waste dumpsite, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

14. TRANSPORT INFORMATION

UN Number: 3077
Road Transport ADR/IRD:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S (Terbuthylazine 600 g/kg)

Maritime Transport IMDG/IMO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S (Terbuthylazine 600 g/kg)

Marine Pollutant (Y/N): Yes

Air transport IATA/ICAO:
 Class: 9
 Packaging group: III
 UN Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S (Terbuthylazine 600 g/kg)

Special/Environmental Precautions: None known.
Transport in bulk (according to MARPOL 73/78, Annex II and the IBC code): Not available.

VILLA TERBUWEED 600 WDG

SAFETY DATA SHEET

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 500 g, 1, 2, 5, 10, 20 & 25 kg plastic containers/bags and labelled according to South African regulations and guidelines.

Additional H-statement (formulants)

H302: Harmful if swallowed.

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.