

# UCP TERBUCIDE PLUS 900 WDG

# MATERIAL SAFETY DATA SHEET

## 1. IDENTIFICATION OF PRODUCT AND COMPANY

**Product Name:** TERBUCIDE PLUS 900 WDG  
**Herbicide**  
**UN No.** 3077  
**Supplier:** 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](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. COMPOSITION / INFORMATION ON INGREDIENTS

**Common name:** 1. Terbutylazine  
 2. Atrazine  
**Chemical Name:** 1. *N*<sup>2</sup>-tert-butyl-6-chloro-*N*<sup>4</sup>-ethyl-1,3,5-triazine-2,4-diamine (IUPAC)  
 2. 6-chloro-*N*<sup>2</sup>-ethyl-*N*<sup>4</sup>-isopropyl-1,3,5-triazine-2,4-diamine (IUPAC)  
**CAS No.:** 1. [5915-41-3]  
 2. [1912-24-9]  
**Chemical Family:** triazine  
**Chemical Formula:** 1) C<sub>9</sub>H<sub>16</sub>ClN<sub>5</sub>  
 2) C<sub>8</sub>H<sub>14</sub>ClN<sub>5</sub>  
**Molecular weight:** 1) 229.7  
 2) 215.7  
**Use:** A water dispersible granule herbicide for selective control of most annual broadleaf weeds as well as Goose grass in crops  
**Formulation:** **Terbutylazine + Atrazine:** 900 g/kg  
 Water dispersible granule  
**Hazardous ingredients of toxicological concern:**  

<u>Inert:</u>	<u>concern:</u>	<u>% present:</u>
Terbutylazine:	harmful	50 %
Atrazine:	harmful	50 %

**Symbols:** Xn  
**Risk-phrase(s):** R 22

## 3. HAZARD IDENTIFICATION

WHO U (a.i.). Unlikely to present acute hazard.  
**Toxicity Class:** Class II. Harmful.  
**Likely routes of exposure:** Skin contact and ingestion.

## 4. FIRST AID MEASURES AND PRECAUTIONS

The acute toxicity to technical triazine for man is thought to be low, and no adverse health effects from exposure to this herbicide have been reported.

**Inhalation:** If dusts or mists have been inhaled and irritation has developed, remove the source of contamination or move victim to fresh air. The patient should be kept under observation and obtain medical attention if irritation persists.

**Skin contact:** Remove contaminated clothing, shoes and leather goods immediately. Gently wipe off excess chemical. Wash skin gently and thoroughly with non-abrasive soap and large amounts of water until no evidence of chemical remains (approximately 15 to 20 minutes). If irritation persists, immediately seek medical attention.

**Eye contact:** Immediately flush the contaminated eyes with gently flowing lukewarm water for 20 minutes, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15 to 20 minutes). Obtain medical attention if irritation persists.

**Ingestion: Do not induce vomiting.** Do not give anything by mouth. Obtain medical attention immediately. If the person is alert, rinse mouth thoroughly with water. Condition may deteriorate with alcohol consumption.

**Advice on treatment:** No specific antidote is available. Treat symptomatically and supportively when required. If large amounts have been ingested, perform gastric lavage and administer activated charcoal.

## 5. FIRE FIGHTING MEASURES

**Flash point:** n/a.

**This material is non-flammable and non-combustible.**

**Hazardous products of combustion:** Fire may produce carbon monoxide, hydrogen chloride, nitrogen oxides or other products of combustion.

**Extinguishing agents:** Extinguish fires with carbon dioxide, dry powder/dry chemical extinguisher, or alcohol-resistant foam. Water spray can be used, but not direct jet of water. Avoid the accumulation of polluted run-off from the site.

## UCP TERBUCIDE PLUS 900 WDG

## MATERIAL SAFETY DATA SHEET

**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 and/or toxic vapours, mists 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 spray or fumes. For personal protection see Section 8.

**Environmental precautions:** Do not allow entering of drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs. Considered a Marine Pollutant.

**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 into 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 of 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:** Avoid contact with eyes, skin and clothing. Avoid inhalation of spray and vapour. Use with adequate ventilation. Do not eat, drink or smoke while working. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the pesticide gets inside. Wash skin thoroughly using a non-abrasive soap and put on clean clothing.

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.

**Storage:** Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container in isolated, dry, cool and well-ventilated area. Not to be stored next to feeds, food and water supplies. Local regulations should be complied with.

### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site 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:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

**Clothing:** Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

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

**Eye protection:** The use of safety goggles is recommended.

**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:** White water dispersible granule.

**Odour:** Characteristic.

**Flammability:** Non-flammable.

**Flash point:** Not applicable.

**Explosive properties:** Not explosive. Not combustible.

**Solubility:** Fully miscible in water.

# UCP TERBUCIDE PLUS 900 WDG

# MATERIAL SAFETY DATA SHEET

pH: 8.7.

LD<sub>50</sub>: ducks: > 1000 mg/kg

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under standard and normal storage conditions. Product is stable with a shelf life of 2 years, provided it is stored in its unopened, undamaged original containers in well ventilated and dry conditions, away from sources of heat and spark-generating equipment.

**Conditions to avoid:** Excessive temperature, contact with any type of reactive chemical. Avoid metal packaging.

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

**Thermal decomposition:** Toxic gases may be released when the product decomposes on heating.

**Atrazine:**

Acute oral LD<sub>50</sub> varies from 940 mg/kg for bobwhite quail to >2000 mg/kg for mallard ducks and 4237 mg/kg for adult Japanese quail. Dietary LC<sub>50</sub> (8 d) for Japanese quail (chicks) >5000, (adults) >1000 mg/kg.

**Fish: Slightly toxic to fish.**

**Terbutylazine:** (tech)

LC<sub>50</sub> (96hrs) Rainbow trout: 2.2 mg/l  
 Bluegill sunfish: 52 mg/l

**Atrazine:**

LC<sub>50</sub> (96 h) for rainbow trout 4.5-11.0, bluegill sunfish 16, carp 76, catfish 7.6, guppies 4.3 mg/l; **other aquatic spp.:**

**Atrazine:** Long-term studies in aquatic ecosystems indicate no permanent damage up to 0.020 mg/l.

**Daphnia:**

**Terbutylazine:** (tech)

LC<sub>50</sub> (48hrs) 69.3 mg/l

**Honeybees: Not toxic to bees.**

**Terbutylazine:** (tech)

LC<sub>50</sub> (oral & contact): > 200 µg/bee

**Atrazine:**

LD<sub>50</sub> (contact) >100 µg/bee, (oral) >97 µg/bee;

**Earthworms:**

**Terbutylazine:** (tech)

LC<sub>50</sub> (14 days) > 283 - > 1000 mg/kg soil

**Atrazine:**

LC<sub>50</sub> (14 d) for *Eisenia foetida* 78 mg/kg soil.

**Other: Terbutylazine:** (tech)

No effects on bacterial respiration and nitrification in range 10.9 to 109 mg/kg soil.

## 11. TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub>, rats:** 2695 mg/kg.

**Acute dermal LD<sub>50</sub>, rats:** 3571 mg/kg.

**Inhalation LC<sub>50</sub>, 4hours, rats:** > 5.8 mg/l (4h).

**Acute skin irritation:** Slightly irritating to rabbit.

**Acute eye irritation:** Slightly irritating to rabbit.

**Sensitization:** Not a skin sensitizer.

**Teratogenicity/Development:** Developmental toxicity was observed in some cases in rats, but not in rabbits.

**Mutagenicity:** Available studies indicate that **Terbutylazine** is not mutagenic.

**Carcinogenicity:** In some studies carcinogenicity effects were noted. Based on available data, the US EPA has classified **Terbutylazine** as a Group D – one for which inadequate evidence exists to determine carcinogenicity in humans.

**ADI: Terbutylazine:** 0.0022 mg/kg

## 12. ECOLOGICAL INFORMATION

**Degradability:**

**Terbutylazine** is strongly adsorbed on soils. Koc 162 to 278 and Kd 2.2 to 25 are typical values for light agricultural soils. **Terbutylazine** is only slightly mobile. Microbial degradation proceeds mainly by de-ethylation and hydroxylation, with eventual ring cleavage. Half-life in biologically active soil is 30 to 60 days.

**Terbutylazine** is rapidly de-chlorinated to hydroxyl-**Terbutylazine** in tolerant plants. Various amounts of de-ethylated and hydroxyl de-ethylated metabolites are produced.

Water GV: 7 µg/l.

**ECOTOXICOLOGY:**

**Birds:**

**Terbutylazine:** (tech)

LD<sub>50</sub>: quails: > 1000 mg/kg

## 13. DISPOSAL CONSIDERATION

**Pesticide disposal:** Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. 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.

Comply with local legislation applying to waste disposal.

**Container disposal:** Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

**TRIPLE RINSE** empty containers in the following manner: Invert 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 minimum of a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Bags must be completely emptied before being disposed of, shake out thoroughly

## UCP TERBUCIDE PLUS 900 WDG

## MATERIAL SAFETY DATA SHEET

into the application hopper before destroying the empty bag. Do not re-use the empty container/bag for any other purpose. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

### END OF DOCUMENT

**Compiled:** July 2014  
**Revised:** June 2024  
**Revision no:** (2)  
**Next Revision date:** June 2024

### 14. TRANSPORT INFORMATION

**UN NUMBER:** 3077  
**Road Transport ADR/RID:**  
 Class: 9  
 Packaging group: III  
 Shipping name: Environmentally Hazardous Substance, Solid, N.O.S  
 (Terbuthylazine + Atrazine 900 g/kg)  
**Maritime Transport IMDG/IMO:**  
 Class: 9  
 Packaging group: III  
 Shipping name: Environmentally Hazardous Substance, Solid, N.O.S  
 (Terbuthylazine + Atrazine 900 g/kg)  
**Considered a marine pollutant.**

### 15. REGULATORY INFORMATION

**Symbol:** Xn  
**Indication of danger:** Harmful.  
**Risk phrases:**  
**R 22** Harmful if swallowed.  
**Safety phrases:**  
**S 1/2** Keep locked up and out of the reach of children.  
**S 13** Keep away from food, drink and animal feeding stuffs.  
**S 20/21** When using do not eat, drink or smoke.  
**S 23** Do not breathe gas/fumes/vapour/spray.  
**S 36/37/39** Wear suitable protective clothing, gloves and eye/face protection.

### 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.  
**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.