

VILLA ELEGANCE 500 WP

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

Product Name: **ELEGANCE 500 WP**
 Herbicide
UN No.: Not Regulated
Supplier: **Villa Crop Protection (Pty) Ltd**
 PO Box 10413
 Aston Manor, 1630, South Africa
Telephone: (011) 3962233
Fax: (011) 3964666
Website: www.villacrop.co.za

Emergency telephone: +27 11 396 2233
 (08:00 – 16:30)

24 Hr Emergency Numbers:

Bateleur: +27 83 1233 911 or
 (Client: Villa Crop Protection) +27 860 333 911

In case of Poisoning:

Western Cape Poisons Tel. Service +27 861 555 777
 Griffon Poison Information Centre +27 82 446 8946
 Tygerberg Hospital +27 21 931 6129

2. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name: **Chlorimuron-ethyl**
Chemical Name: 2-(4-chloro-6-methoxypyrimidin-2-ylcarbonylsulfamoyl)benzoic acid (IUPAC)
CAS No.: 90982-32-4
Chemical family: sulfonylurea
Chemical formula: C₁₅H₁₅ClN₄O₆S
Molecular weight: 414.8
Use: Branched chain amino acid synthesis (acetolactate synthase or ALS) inhibitor. Post-emergence herbicide for control of broad-leaved weeds in soya beans and sugar cane.
Formulation: **Chlorimuron-ethyl** 500 g/kg
 Wettable powder
Hazardous components: **Chlorimuron-ethyl** 500 g/kg.
Symbol: Xi
Indication of Danger: Irritating Substance
Risk Phases: R 38

3. HAZARD IDENTIFICATION

Toxicity class:
 WHO (a.i.) III (Table 5)
ADI: 0.02 mg/kg b.w.
NOEL: 250 mg/kg (rats) - 2 year
Likely routes of exposure:
 The product may irritate eyes, nose, throat and skin. May be harmful if absorbed through skin.

4. FIRST AID MEASURES AND PRECAUTIONS

Skin irritation may occur although unlikely. May irritate throat.

Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. Large ingestions can cause nausea, vomiting, abdominal distress and diarrhoea.

Inhalation:

Immediately remove the affected victim from exposure to an area of fresh air. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.

Skin contact:

Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Seek medical advice if irritation develops and/or persists.

Eye contact:

Immediately flush the eyes with gently flowing lukewarm water or saline solution for 20 to 30 minutes, occasionally lifting the upper and lower lids. Obtain medical attention if irritation develops and/or persists after flushing.

Ingested:

If swallowed, **do not** induce vomiting. Keep at rest. Treat symptomatically and supportively. Get prompt medical attention. No specific intervention is indicated, as compound is not likely to be hazardous by ingestion. Administer artificial respiration if breathing is stopped.

Advice to physician:

Aspiration hazard may contraindicate the use of gastric lavage. Treat symptomatically and supportively. **NO SPECIFIC ANTIDOTE.** Contact local Poison Centre if needed.

5. FIRE FIGHTING MEASURES

Special Hazards:

Not a fire or explosion hazard.

Like most organic powders or crystals, under severe dusting conditions, this material may form explosive mixtures in air.

Extinguishing agents:

Extinguish small 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. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Fire fighting:

Remove spectators from surrounding area. Remove container from fire area if possible. Fight fire from maximum distance.

For massive fire, use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of

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surrounding fire. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid inhaling hazardous vapours. Keep upwind.

Personal protective equipment:

Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus with full-face mask.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions:

Do not inhale dust. Ventilate area of spill or leak, especially confined areas. Avoid contact with skin, eyes or clothes. Wear appropriate safety clothing and eye/face protection - see Section 8.

Environmental precautions:

Do not allow entering 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.

Occupational spill:

For dry spills, shovel up and sweep up with damp earth or sand or other suitable absorbents, taking care not to raise a dust cloud. Place the material into a labelled, clean, dry container and store in a safe place to await proper disposal. All contaminated cleaning materials should be placed in closable receptacles.

In situations where product comes in contact with water, contain contaminated water for later disposal. Do not flush spilled material into drains. Do not contaminate water while cleaning equipment or disposing of wastes. Keep spectators away and upwind.

7. HANDLING AND STORAGE REQUIREMENTS

Handling:

Remove sources of naked flame or sparks. Use good personal hygiene. Avoid contact with eyes and skin and inhalation of fumes. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then 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:

Store in its original container in isolated, dry, cool and well-ventilated area. Keep from contact with other pesticide, fertilizers and seeds during storage. Store away from incompatible substances. Not to be stored next to foodstuffs and water supplies. Keep under lock and key

out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Occupational exposure limits:

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 equipment including approved respiratory protection.

Respirator:

An approved full-face air-purifying respirator suitable for protection from mists of pesticides is required. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Clothing:

Employee must wear appropriate protective (impervious) clothing (long-sleeved shirt, long pants and shoes plus socks) and equipment to prevent skin contact with the substance.

Gloves:

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

Eye protection:

Employee must wear splash-proof safety goggles and face-shield to prevent 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: Off-white to pale yellow powder.

Odour: Odourless.

Flammability: Not flammable.

Solubility in water: This is a wettable powder formulation. Disperse in water.

Bulk density: 0.31 g/ml

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10. STABILITY AND REACTIVITY

Storage stability:

Considered stable for a period of 2 years in normal air, warehouse and light conditions, if kept in closed container.

Chemical Stability:

It is adequately stable in tank mixtures with other crop protection chemicals including liquid fertilizers.

Incompatibility:

Compatible with various other agricultural products. However, a compatibility test is required before using with other products. Do not physically mix concentrate directly with other herbicides or pesticide concentrates; always dilute first.

Thermal decomposition:

Avoid extremes of temperature. Rapid decomposition occurs above 160 °C. Product undergoes exothermic decomposition which can lead to high temperatures and violent decomposition if heat that developed, is not removed.

Hazardous Decomposition Products:

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Acute oral LD₅₀: (calculated)

> 8204 mg/kg in rats (male).

Acute dermal LD₅₀: (calculated)

> 4000 mg/kg in rabbits.

Acute inhalation LC₅₀: (calculated)

LC₅₀ for rats > 10 mg/ℓ air (4 hours)

Acute skin irritation: Very mild skin irritant.

Acute eye irritation: Very mild eye irritant.

Dermal sensitisation: Not a skin sensitizer in animals (guinea pig).

Teratogenicity: Not teratogenic in rats at 2500 ppm or up to 75 mg/kg in rabbits.

Mutagenicity: Not mutagenic in Ames bacterial assay, Chinese Hamster Ovary Mammalian Cell Assay, Rat Dominant Lethal Assay, In Vitro Cytogenetic Assay, or DNA Repair Assay.

Reported Effects:

There are no reported cases of long-term health effects in humans due to **Chlorimuron** or its formulations.

12. ECOLOGICAL INFORMATION

Adsorption and leaching characteristics in basic soil types:

Adsorption to clay is low while organic matter has some affinity. The K value of 0.69 on a Flanagan silt loam is similar to **Metribuzin's** 0.68. Rate of leaching is correlated

with net movement of soil moisture with less leaching if pH is less than 6.0.

Microbial breakdown:

Initial deactivation of the molecule is through hydrolysis followed by complete metabolism to low molecular weight compounds through normal soil microbial processes.

Loss from photodecomposition and/or volatilization:

In the field photodecomposition and volatilization play minor roles in its disappearance. Hydrolysis into non-herbicidal compounds is the major form of degradation and soil temperature; pH and levels of oxygen and moisture influence its rate.

Resultant average persistence at recommended rates:

Under growing season conditions the half-life is 4 to 6 weeks. Soil temperature influences length of half-life with shorter persistence at higher temperature. Low pH accelerates hydrolysis while soil texture does not appear to be a major factor in rate of degradation.

ECOTOXICOLOGY:

Chlorimuron is practically non-toxic to birds and mammals. It is slightly toxic to fish and invertebrates. It is not expected to adversely affect endangered/threatened species because of low toxicity and low application rate.

Birds:

LD ₅₀ (acute oral):	mallard ducks	> 5020 mg/kg
LC ₅₀ (oral dietary):	mallard ducks	> 11240 ppm
	bobwhite quail	> 11240 ppm

Fish:

LC ₅₀ (96h):	rainbow trout	> 2000 mg/ℓ
	bluegill sunfish	> 200 mg/ℓ
LC ₅₀ :	crayfish	> 1000 ppm

Daphnia: LC₅₀ (48h): 2000 mg/ℓ

Bees: LD₅₀ (48h) > 12,5 µg/g bee.

Earthworms: LC₅₀: > 4050 mg/kg

13. DISPOSAL CONSIDERATION

Pesticide disposal:

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product that cannot be reused or reprocessed. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Package product wastes:

Emptied containers retain vapour and product residues. Observe all labelled safeguards. Empty the container of excess product into the container of the applicator. Destroy the emptied containers by perforation and flattening. Bury in an approved dumpsite. Do not re-use the empty container for any other purpose. Comply with any local legislation applying to disposal.

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14. TRANSPORT INFORMATION

UN NUMBER: NOT REGULATED
Not classified as dangerous in the meaning of transport regulations – not regulated.

15. REGULATORY INFORMATION

Symbol: Xi
Indication of danger: Irritant
Risk phrases:
R 38 Irritating to skin.
Safety phrases:
S 2 Keep out of reach of children.
S 37 Wear suitable gloves.

National Legislation:

In accordance with 91/155/EEC Directive and with French standard T 01-102 and the South African Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993).

16. OTHER INFORMATION

Packaging:

Packed as 10 x 18 g water-soluble bags per plastic jar 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.

END OF DOCUMENT

Compiled: February 2002
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