**VILLA THURICIDE WP**

### 1. IDENTIFICATION OF PRODUCT AND COMPANY

**Product Name:** THURICIDE WP  
Microbial Insecticide  
**UN Number:** Not regulated.  
**Supplier:** Villa Crop Protection (Pty) Ltd.  
PO Box 1043  
Aston Manor, 1630, South Africa  
**Telephone:** (011) 3962233  
**Fax:** (011) 3964666  
**Website:** www.villacrop.co.za

**Emergency telephone numbers:**  
24 Hr Transport / Spill emergency no:  
Bateleur: +27 86 199 9071  
( Client: Villa Crop Protection)  
Poisoning:  
Griffon Poison Information Centre +27 82 446 8946  
Western Cape Poisons +27 861 555 777  
Tygerberg Hospital +27 21 931 6129

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Scientific Name:** Bacillus thuringiensis Berliner, variety kurstaki  
**Chemical Name:** Not Applicable.  
**Other Names:** Bt  
**CAS No.:** 68038-71-1  
**Chemical Family:** Not applicable – Biological (bacterium)  
**Chemical Formula:** Not applicable - Biological  
**EPA Reg. No.:** 55947-50  
**Use:** A biological insecticide with stomach action for the control of specific Lepidoptera larvae in agriculture.  
**Formulation:** Bacillus thuringiensis var. kurstaki: 16 000 IU/mg  
Wettable Powder  
**Component:** Bacillus thuringiensis var. kurstaki:  
Risk phrases: R 36, R 43

### 3. HAZARD IDENTIFICATION

**Toxicity class:** EPA III, WHO class III  
**Precautionary Statement:** CAUTION: Active ingredient is practically non-toxic to all but specific insect pests and has shown no mammalian toxicity. Avoid inhalation or contact with eyes or open wounds.  
**Likely routes of exposure:** Skin and eye contact, oral and inhalation.

### 4. FIRST AID MEASURES AND PRECAUTIONS:

There have been no reports of adverse effects to humans resulting from overexposure to Bacillus thuringiensis. The microbial active ingredient Bacillus thuringiensis has shown no mammalian systemic toxicity. May cause skin sensitization in certain individuals.  
**First Aid:** If poisoning is suspected, stop work immediately and consult a physician, the nearest hospital or the nearest Poison Centre. Remove the affected person from the danger zone to a well-ventilated area or to fresh air and protect from under cooling.  
**Eye contact:** Rinse eyes with clear water for several minutes and immediately call a physician. Hold eye lids apart to rinse the entire surface of the eyes and lids. Do not apply any medicating agents except on the advice of a physician.  
**Skin contact:** Remove contaminated clothing and thoroughly wash affected area with soap and water. Do not apply any medicating agents except on the advice of a physician.  
**Ingestion:** If person is fully conscious, immediately give large quantities of water to drink and get medical help. Never give anything by mouth to an unconscious person and do not induce vomiting.  
**Inhalation:** Remove patient to a well-ventilated area or to a clear fresh air area and consult a physician. Apply artificial respiration if necessary.  
**Advice to physician:** No specific antidote is known. Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

**NFPA Rating:**  
Health: 0  
Fire: 0  
Reactivity: 0  
**Flammability Class:** Combustible solid  
**Flash point:** Not applicable  
**Explosive Limits:** Not applicable  
**Extinguishing Media:** Water, foam, dry chemical, CO₂  
**Special Protective Equipment:** Fire fighters should wear protective clothing and self-contained breathing apparatus.  
**Fire Fighting Procedures:** Normal procedures. Remove spectators from surrounding area. Remove container from fire area if possible. Fight fire from maximum distance. Contain fire control agents for later disposal. Water can be
used to cool unaffected containers but must be contained for later disposal. Avoid inhalation of fumes. Keep upwind. Do not allow fire fighting water to escape into waterways or sewers.

Combustion Products: Not determined
Unusual fire: None
Explosion Hazard: None

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal precautions: Do not inhale fumes. Ventilate area of spill or leak, especially confined areas. Avoid contact with skin, eyes or clothes. For personal protection see section 8.

Environmental precautions: Do not allow entering drains or watercourses. When the product contaminates public waters, inform appropriate authorities immediately according with local regulations.

Occupational spill: For spilled stored product, carefully sweep up the material, place into container for subsequent disposal. Spilt product must not be re-use. For spilled spray solution, control the source and confine the spill. Absorb small spills with sand, soil or binding agent, place into containers for subsequent disposal. Avoid runoff to sewer. Do not allow the product to come in contact with water systems. Keep spectators away and upwind. Remove heavily contaminated soil layer and bury in a safe place away from water supplies. Use a landfill site approved for pesticides.

Absorbents: Clay granules, dirt or equivalent.
Incompatibles: None.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with skin, eyes or clothing. Handle as for any other pesticide. 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. 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 original container in a cool, dry and well-ventilated area separated from food products or flammables. Protect from freezing and store below 32 °C to protect activity. Keep out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits: Not established.
11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀: > 7.2 x 10¹⁰ CFU/kg body weight in rats (highest dose level tested).
Acute dermal LD₅₀: 1.8 x 10⁷ CFU/guinea pig (highest dose level tested).
Acute inhalation LC₅₀: > 3.3 x 10⁹ CFU/l in rats.
Skin contact: Non-irritating (guinea pig).
Eye contact: Slightly irritant.
Sensitizer: Potential in some individuals.

Chronic Toxicity (specific to active ingredient(s)):
No evidence of infectivity or persistence of pathogenicity was found in 13 week rat study.
No evidence of infectivity or pathogenicity at 500 mg/kg/day was found in 20 week sheep study.

Developmental / Productive toxicity (specific to active ingredient(s)): Not tested.

Mutagenicity (specific to active ingredient(s)):
Negative in chromosomal aberration, UDS (unscheduled DNA synthesis) and reverse mutation.

U.S. EPA has evaluated this product’s toxicity as part of the U.S. registration process. EPA requires extensive toxicity tests be performed before any crop protection chemical is approved for use. Based on their review of test results, they have determined that no significant risk to user, the public, or the environment exists when this product is used as indicated on the product label.

12. ECOLOGICAL INFORMATION

*Bacillus thuringiensis* subsp. kurstaki spores have a very short persistence in the environment (DT₅₀ = 10 hours), mainly due to their U.V.-light sensitivity.

Hydrolysis: Not applicable.

Photolysis: Not applicable.

Soil half-life: Not applicable.

Water solubility: Dispersible in water.

**ECOTOXICITY (active ingredients only):**

Fish: LC₅₀ (trout): > 41 mg/l (30 day)
Daphnia: EC₅₀: >41.6 mg/l (48 hour)

13. DISPOSAL CONSIDERATION

Wastes resulting from use of this product may be dispose of on site or at an approved waste disposal facility in accordance with any local legislation applying to waste disposal for pesticides.

Wastes are not classified as hazardous under RCRA.

Do not reuse product containers.

14. TRANSPORT INFORMATION

UN NUMBER: Not regulated.

DOT49CFR Description: Not regulated as hazardous.

Freight classification: Insecticides NOI other than poison, NMFC item: 102120, Class 60

15. REGULATORY INFORMATION

CERCLA (Superfund): Not regulated.

RCRA: Not regulated as hazardous.

SARA 311/312 HAZARD CATEGORIES:

Immediate health: Yes (irritation)

Delayed health: No

Fire: No

Sudden Pressure: No

Reactivity: No

Risk phrases:

R 36 Irritating to eyes.

R 43 May cause skin sensitization by skin contact.

Safety phrases:

S 1/2 Keep locked up and out of reach of children.

S 24/25 Avoid contact with skin and eyes.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

16. PACKING AND LABELLING

Packed and labelled according to South African regulations and guidelines.

17. OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipient’s sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

18. REFERENCES

- Applicable physical and chemical, toxicity and ecotoxicity research studies as supplied by Sandoz/Novartis and Agrisence/Thermo Trilogy.

**END OF DOCUMENT**

Compiled: March 2000  
Reviewed: January 2019  
Revision no: (2)  
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For detailed information on revisions, contact the Registration holder.