



SAFETY DATA SHEET

SUBJECT: STALKBORER plus
EFFECTIVE DATE: JUNE 2019
REVISION NO: 1
PAGE : 1 of 4
PRODUCT CODE: -

1. PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER: **EFEKTO**
P.O BOX 652147
BENMORE 2010

TEL No. 0861 333 586 office hours

EMERGENCY TELEPHONE NUMBERS:

SPILLAGES: 082 446 8946

POISONINGS:

Poisons Information Help Line: 0861 555 777 (all hours)

Griffon Poison Centre 082 446 8946

Product name: **STALKBORER plus**

Use: A ready-to-use granular insecticide, containing a residual, contact pyrethroid, for the control of Stalk borer in maize

2. HAZARD IDENTIFICATION

MAIN HAZARD:

This product is not hazardous when used as directed, due to the extremely low concentration of deltamethrin present in the formulation. However, normal safety precautions for handling this chemical must be observed and the label directions adhered to.

In 'The WHO Recommended Classification of Pesticides by Hazards and Guidelines to Classification 2009', this concentration of deltamethrin in a formulation is classified as "unlikely to present acute hazard in normal use".

Environment:

Deltamethrin, the active ingredient, is very toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Likely routes of exposure:

Pyrethroids are primarily absorbed through the gut (ingestion) and pulmonary membrane (inhalation). Dermal absorption is low.

Eye contact:

The product is not an eye irritant.

Skin contact:

The product may result in sensitisation and allergic reactions through skin exposure, in predisposed individuals.

Ingestion:

Harmful if swallowed.

Inhalation:

The product is not considered to be an inhalation hazard due to the formulation type.

Few chronic health risks from the chemical occur in humans, but agricultural labourers exposed to deltamethrin over long periods of time (7-8 years) have been found to develop various forms of skin irritation (EXTOXNET).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients: Deltamethrin = 0.75 g/kg
Piperonyl butoxide = 3.0 g/kg

Common name: **Deltamethrin**

Chemical Family: Pyrethroid

Chemical Name: [(S)-cyano-(3-phenoxyphenyl)-methyl] (1R,3R)-3-(2,2-dibromoethenyl)-2,2-dimethyl-cyclopropane-1-carboxylate

Common name: **Piperonyl butoxide (synergist)**

Chemical Name: 5-[2-(2-butoxyethoxy)ethoxymethyl] -6-propyl-1,3-benzodioxole

CAS No.: 52918-63-5 (deltamethrin)
51-03-6 (piperonyl butoxide)

Chemical Formula: **Deltamethrin**
 $C_{22}H_{19}Br_2NO_3$ (Mol. wt.: 505.2)
Piperonyl butoxide
 $C_{19}H_{30}O_5$ (Technical)

UN No.: Not regulated

4. FIRST AID MEASURES

The following symptoms may occur:

Local: Short term dermal or eye exposure may result in paraesthesia, especially facial, [skin - itching, tingling, burning, numbness (pins and needles)]. These symptoms are usually transient with spontaneous recovery within 24 hours. Repeated exposure may cause skin dryness or cracking.

Systemic: Dizziness, headache, nausea, vomiting, gastroenteritis with diarrhoea, nervousness, anxiety, salivation, inco-ordination, tremors, muscular paralysis, convulsions, coma, and death through respiratory failure. However, these symptoms are most unlikely to occur as very large amounts would have to be ingested or inhaled.

A poison control centre should be contacted in the event of an accidental poisoning.



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Eye contact:

The granular formulation will not, under normal conditions of use, expose the user to the danger of eye contamination. However, in case of contact, immediately flush eyes with gently flowing, lukewarm water or saline solution for 20 minutes, holding the eyelid(s) open. Local anaesthetic eye drops may be administered in case of pain. Seek medical attention if symptoms persist.

Skin contact:

Remove contaminated clothing and shoes. Wash skin gently and thoroughly with water and non-abrasive soap followed by alcohol. Apply Vitamin E cream or simple toilet milks. Seek medical advice if necessary. The product is not considered to be a dermal sensitiser, but persons who become sensitised may require specialised medical management with antihistaminic / anti-inflammatory agents.

Ingestion:

DO NOT INDUCE VOMITING. Wash out mouth with water. Do not administer milk as fats enhance absorption of pyrethroids. Seek medical advice if large amounts have been ingested.

Inhalation:

Under normal handling conditions, users will not be exposed to risk of contamination by inhalation. Remove to fresh air. Seek medical attention if necessary.

Advice to physician: There is no specific antidote.

Decontamination followed by symptomatic and supportive treatment.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Water spray, alcohol-resistant foam, dry powder, carbon dioxide (CO₂). Do not use high volume water jet for safety reasons.

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.

Firefighting:

Remove container from fire area if possible or cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water with sand or earth.

Personal protective equipment:

Fire may produce irritating or poisonous vapours (toxic oxides of carbon), mists or other products of combustion. Do not breathe fumes. Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Wear suitable protective clothing and equipment (for personal protection see Section 8). Clear the area of unauthorised personnel. Avoid contact with spilled product or contaminated surfaces. Avoid contact with skin and eyes. Do not eat, drink or smoke, when dealing with a spillage.

Environmental precautions:

Clean-up procedures: Shovel or sweep spilled material into properly labeled and tightly closed containers for proper disposal. Rinse the spill area and any tools or implements several times (a sodium hypochlorite solution may be used). Store the wash water in suitable containers for disposal.

Environmental precautions: Keep people and animals away. Do not discharge contaminated run-off into drains, ground or surface water. Avoid contaminating the soil. If the spill occurred to a body of water, notify the appropriate authorities downstream of the spill so they can decide what if any further action is needed.

7. HANDLING AND STORAGE

Handling:

Avoid contact with eyes and skin. 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. Water used to clean equipment must be disposed of safely to avoid contamination.

Storage:

Keep under lock and key and out of reach of unauthorised persons, children and animals. **Store in a place accessible to authorised persons only.** Store in its original labeled container in a cool, dry and well-ventilated area (0-30 °C). Keep away from direct sunlight. Protect against frost. Not to be stored next to food, feed and water supplies. Comply with local regulations.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering control measures:

Provide adequate ventilation during manufacture. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations. If engineering controls and work practices are not effective in controlling exposure to this



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material, then wear suitable personal protective equipment including approved respiratory protection.

Emergency eye wash: The employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use, where there is any possibility that an employee's eyes may be exposed to this substance.

PERSONAL PROTECTIVE EQUIPMENT:

Application:

Employee must wear appropriate impervious, full length, protective clothing and equipment to prevent skin and eye contact with the substance. Wear safety goggles and rubber gloves.

Hygiene measures:

When using, do not eat, drink or smoke. Work in an adequately ventilated area. Remove soiled clothing immediately. Clean hands and face at regular intervals whilst at work. Wash exposed skin area, face and hands after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Homogenous, light brown granules with no extraneous matter.

Odour:

Mild, chemical odour.

Flammability:

Not flammable

Corrosiveness:

Non-corrosive to metals

Stability:

Stable on exposure to air and sunlight.

Pour density:

1.41 g/ml

Tap density:

1.42 g/ml

10. STABILITY AND REACTIVITY

Storage stability:

Stable for up to 2 years under normal warehouse conditions.

Conditions to avoid:

Extreme temperatures and direct sunlight.

Materials to avoid:

None

Hazardous reactions:

No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

TOXICITY:

Data as calculated for formulation.

Acute oral LD₅₀ : 169 491 mg/kg (rat)

Acute dermal LD₅₀ : > 1 594 896 mg/kg (rat)

Chronic toxicity:

Deltamethrin

Not mutagenic

Not teratogenic

Not carcinogenic

NOEL = 1 mg/kg.bw/day

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY:

Data as for active ingredient.

Birds:

Deltamethrin:

Acute oral LD₅₀: >4640 mg/kg (mallard duck).

Piperonyl butoxide:

Acute oral LD₅₀: > 2250 mg/kg

Fish:

Deltamethrin:

Deltamethrin is highly toxic to fish under laboratory conditions, but is not toxic to fish under natural conditions. Deltamethrin has an impact on aquatic herbivorous insects. Its use can therefore indirectly cause the proliferation of algal blooms. Crustacea may be affected.

LC₅₀ (96 hr): 0.91 µg/l (rainbow trout).

Piperonyl butoxide:

LC₅₀ (24 hr): 5.3 mg/l (carp)

Daphnia:

Deltamethrin:

Toxic to *Daphnia magna*.

LC₅₀ (48 h): 0.35 µg/l.

Piperonyl butoxide

LC₅₀ (24 h): 2.95 mg/l.

Bees:

Deltamethrin:

Toxic to bees

LD₅₀(oral): 79 ng/bee (contact).

Piperonyl butoxide:

LD₅₀(oral): > 25 µg/bee

Deltamethrin:

Earthworms(LC₅₀):

28.57 mg.kg soil.

Persistence in the environment/Degradability:

Deltamethrin is not mobile in the environment because of its strong adsorption on soil colloids, its insolubility in water, and very low rates of application. There is no risk of leaching. Deltamethrin undergoes microbial degradation in the soil within 1-2 weeks. About 10 days following application, no residues are



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detectable in plants. Deltamethrin is biodegradable in the natural environment.

understood by all people who may use, handle, dispose of, or in any way come in contact with the product.

13. DISPOSAL CONSIDERATIONS

Pesticide disposal:

Contaminated absorbents, surplus product, etc., should be burned in a high- temperature incinerator (> 1000 °C) or buried in an approved landfill. Hydrolysis under alkaline conditions is a suitable method to dispose of small quantities of the product. Before disposal of the resultant waste, the material must be analysed to ensure that the active ingredient has been degraded to a safe level. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Comply with local legislation in respect of waste disposal.

Package product wastes:

Emptied containers retain product residues. Dispose of empty container in a responsible manner and never re-use for any other purpose. Observe all labeled safeguards until container is destroyed. Dispose of the container in accordance with local regulations.

END OF MSDS.

14. TRANSPORT INFORMATION

UN NUMBER: Not regulated

Road/Rail transport ARD/RID	Not regulated
Air transport IATA/ICAO	Not regulated
Sea transport IMDG	Not regulated

15. REGULATORY INFORMATION

Risk phrase(s): R22, 51/53, 66

Safety phrases: S1/2/3, 7/8/9, 13, 20/21, 24/27/28, 25, 29, 36/37, 62

16. OTHER INFORMATION

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be reliable and correct. However, EFEKTO provides no warranties, express or implied, and assumes no responsibility for the accuracy and completeness of the data contained herein. Users are responsible for ensuring that they have all the data relevant to their use.

It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and