

MATERIAL SAFETY DATA SHEET
Emergency contact number: +27 11 365-8639



Publication date: November 2003 Sheet number: BES/SA 0059 Revised on: 6 July 2005 Revision number: 4

1) IDENTIFICATION OF THE SUBSTANCE / PREPARATION

Trade name: **K-OTHRINE® WG 250**

Company identification: Bayer (Pty.) Ltd.
Reg. No. 1968/011192/07
P.O. Box 143, Isando 1600
SOUTH AFRICA

Emergency number: +27 11 365 8639 (Tel)
+27 11 365 8640/15 (Fax)

2) COMPOSITION / INFORMATION ON THE INGREDIENTS

Insecticide
Water dispersible granules (WG), contains: Deltamethrin 25 % w/w

HAZARDOUS COMPONENTS

Chemical name	CAS-No.	Symbol(s)	R-phrases	Concentration [%]
Deltamethrin	52918-63-5	T, N	R50/53 R23/25	25.00
Alkylated naphthalene sulfonate, formaldehyde polymer, sodium salt		Xi	R36/38	>5.00 - <25.00
Anionic tenside		Xi	R36/38	>5.00 - < 25.00
Citric acid	77-92-9	Xi	R36	>1.00 - < 5.00

3) HAZARD IDENTIFICATION OF THE PRODUCT

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4) FIRST AID MEASURES

General advice: Remove contaminated, soaked clothing immediately and dispose of safely.

Inhalation: Move the patient to fresh air and keep at rest. If symptoms persist, call a physician.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. After skin contact: Apply Vitamin E cream or simple toilet milks. When symptoms persist or in all cases of doubt seek medical advice.

Eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion: Do not induce vomiting. Wash out mouth with water. Keep at rest. Obtain medical attention.

NOTES TO PHYSICIAN:

Symptoms: Local: After skin contact: Paresthesia (local), may cause skin and eye irritation. Inhalation may provoke the following symptoms: irritation, cough.

Symptoms: Systemic: Excitement, gastrointestinal discomfort, tremor, dizziness, headache, listlessness, nausea and vomiting, epigastric pain, muscular fasciculation of limbs, unconsciousness, convulsions and coma (very high doses).

Risks

This product/preparation contains a pyrethroid.
Must NOT be confused with organophosphorus compounds!

Treatment

Local treatment:

Initial treatment should be symptomatic and supportive.

After eye contact: Instillation of local anaesthetic drops e.g. 1% Amethocaine Hydrochloride eye drops. Give Analgesics as necessary.

Treatment

Systemic treatment:

Endotracheal intubation should be done and gastric lavage performed, followed by administration of charcoal.

Monitoring of respiratory and cardiac functions

ECG - monitoring (Electrocardiogram)

Check for pulmonary oedema in event of inhalation.

Keep airway clear, administer artificial respiration if necessary.

Against convulsions: Give diazepam: for adults 5-10 mg intravenously as necessary until fully sedated; for children 2.5 mg i.v.

There is no antidote.

Contraindication: atropine

MATERIAL SAFETY DATA SHEET
Emergency contact number: +27 11 365-8639



Contraindication: derivatives of adrenaline Recovery: Spontaneous.	
5) FIRE FIGHTING MEASURES	
Suitable extinguishing media:	Water spray jet, carbon dioxide (CO ₂), dry powder, foam.
Extinguishing media which should not be used for safety reasons:	Product itself is non-combustible Fire extinguishing measures to suit surroundings.
Specific hazards during fire fighting:	In case of fire the evolution of dangerous gases is possible.
Special protective equipment for fire-fighters:	In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire fighting if necessary.
Further information:	Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by binding area with sand or earth.
6) ACCIDENTAL RELEASE MEASURES	
Personal precautions:	Avoid dust formation. Avoid contact with spilled product or contaminated surfaces. When dealing with spillage, do not eat, drink or smoke.
Environmental precautions:	Keep people and animals away. Do not discharge into the drains / surface water / groundwater.
Methods for cleaning up:	Vacuum up spilled product. Transfer collected material to heavy duty plastic drums and keep safe for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice:	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13. Check also for any local site procedures.
7) HANDLING AND STORAGE	
Handling:	No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Avoid dust formation. Provide good ventilation of working area (local exhaust ventilation if necessary). The product is not combustible.
Storage:	Keep container tightly closed in a dry and well-ventilated place. Store in a place accessible by authorized persons only. Protect against heat and direct sunlight. Protect against moisture. Keep away from food, drink and animal feedstuffs. Storage temperature: 0 – 30 °C Suitable materials: Keep in original packaging, tightly closed.
8) EXPOSURE CONTROLS AND PERSONAL PROTECTION	
PERSONAL PROTECTIVE EQUIPMENT	
Respiratory protection:	Dust mask.
Hand protection:	Chemical resistant gloves. PVC gloves. Nitrile gloves.
Eye protection:	Chemical resistant goggles must be worn.
Skin and body protection:	Light protective clothing, PVC. PVC boots.
Hygiene measures:	When using, do not eat, drink or smoke. Remove soiled clothing immediately. Remove soaked clothing immediately. Clean hands and face at work intervals and after work. Work in and adequately ventilated room.
9) PHYSICAL AND CHEMICAL PROPERTIES	

MATERIAL SAFETY DATA SHEET
Emergency contact number: +27 11 365-8639



Form:	Dry flowable water dispersible granules.
Colour:	Beige
pH:	2.0 – 4.0 at 100 g/l
Bulk density:	0.63 – 0.73 kg/m ³
Water solubility:	Dispersible
Partition coefficient (n-octanol/water):	log P _{ow} : 4.6 at 25 °C. Note: the value mentioned relates to the active ingredient deltamethrin.
Partition coefficient (n-octanol/water):	logP _{ow} : 0.704 Note: the value mentioned relates to the active ingredient dimethoate.
Other information:	The product is not combustible.
10) STABILITY AND REACTIVITY	
Conditions to avoid:	Extremes of temperature and direct sunlight.
Materials to avoid:	None.
Hazardous reactions:	No hazardous reactions when stored and handled according to prescribed instructions. Note: stable under normal conditions.
11) TOXICOLOGICAL INFORMATION	
Acute toxicity:	
LD ₅₀ oral, rat:	> 3,465 mg/kg
LD ₅₀ acute dermal, rat:	> 2,090 mg/kg
LC ₅₀ inhalation (4 hours), rats:	> 1,474 - <4,062 mg/l
Skin irritation:	Rabbit – slight irritant effect, does not require labelling.
Skin sensitisation:	Guinea pig – non-sensitizing (method: OECD 406, Buehler test).
Eye irritation:	Rabbit – slight irritant effect, does not require labelling.
Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hrs).	
12) ECOLOGICAL INFORMATION	
ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)	
Bio-accumulation:	
Bluegill sunfish: Bio-concentration factor (BCF):	1.400
ECOTOXICITY EFFECTS	
The ecotoxicological data refer to a similar formulation.	
Toxicity to fish:	
LC ₅₀ = 14.5 mg/l, Rainbow trout, exposure time: 96 h	
LC ₅₀ = 1.9 mg/l, Bluegill sunfish, exposure time: 96 h	
Toxicity to daphnia:	
EC ₅₀ = 0.00018 mg/l, Water flea (<i>Daphnia magna</i>), exposure time: 48 h	
Toxicity to algae:	
EC ₅₀ = 41.7 mg/l, <i>Selenastrum capricornutum</i> , exposure time: 96 h	
Toxicity to other organisms:	
LD ₅₀ > 2,000 mg/kg, Japanese Quail	
13) DISPOSAL CONSIDERATIONS	
Product:	In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority.
Contaminated packaging:	Completely empty packaging may be treated as household waste.

MATERIAL SAFETY DATA SHEET
Emergency contact number: +27 11 365-8639



14) TRANSPORT INFORMATION

UN Number: 3077
Class: 9
IMDG: -
Ems: -
MFAG: -
Subsidiary risk: •
Packing group: III
Declaration for land shipment: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Declaration for sea shipment: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Declaration for shipment by air: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

15) REGULATORY INFORMATION

Risk phrases: R 23/25, 36/38, 50/53.
Safety phrases: S 35, 57.
WHO Classification: III

16) OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

Consult the label for directions for use.

THIS INFORMATION CONCERNS ONLY THE PRODUCT AS CONFORMING TO ITS SPECIFICATIONS AND LIMITED TO THE USES HEREIN STATED.

This sheet complements the technical sheet of use but does not replace it. The information contained on this sheet is based on knowledge of the product on the date of publication. It is given in good faith.

If the logo in this document is not in colour, this document is a photocopy and could be out of date.