

**K-OTHRINE WG 250**Version 4 / GB
1020000028301/8
Revision Date: 09.07.2009
Print Date: 31.08.2010**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name K-OTHRINE WG 250
Product code (UVP) 05942764
Usage Insecticide
Company Bayer Environmental Science
230 Cambridge Science Park
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Great Britain

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2. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

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

3. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**Water dispersible granules (WG)
Deltamethrin 25% w/w**Hazardous components**

Chemical Name	CAS-No. / EC-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Deltamethrin	52918-63-5 258-256-6	T, N	R23/25, R50/53	25.00
Sulphonated aromatic polymer, sodium salt		Xi	R36/38	> 1.00 - < 20.00
Anionic tenside		Xi	R36	> 1.00 - < 20.00
Citric acid	77-92-9 201-069-1	Xi	R36	> 1.00 - < 20.00
Sodium dioctyl sulphosuccinate	577-11-7 209-406-4	Xi	R38, R41	> 1.00 - < 5.00
Kaolin	1332-58-7			> 1.00

For the full text of the R-phrases mentioned in this Section, see Section 16.

4. FIRST AID MEASURES



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General advice

Remove contaminated clothing immediately and dispose of safely.

Inhalation

Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

Skin contact

Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.

Ingestion

Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

Notes to Physician

Symptoms

Local: Skin and eye paraesthesia which may be severe, Usually transient with resolution within 24 hours., Skin, eye and mucous membrane irritation, Cough

Symptoms

Systemic: Discomfort in the chest, Tachycardia, Hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Dizziness, Blurred vision, Headache, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration

Risks

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

Treatment

Local treatment:
Initial treatment: symptomatic.

Treatment

Systemic treatment:
Initial treatment: symptomatic.
Monitor: respiratory and cardiac functions.
In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable.
Keep respiratory tract clear.
Give oxygen or artificial respiration if needed.
In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens.
If not effective, phenobarbital may be used.
Contraindication: atropine.
Contraindication: derivatives of adrenaline.
There is no specific antidote.
Recovery is spontaneous and without sequelae.

5. FIRE-FIGHTING MEASURES



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Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Extinguishing media which should not be used for safety reasons

High volume water jet

Specific hazards during fire fighting

Dangerous gases are evolved in the event of a fire.

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

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 diking area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Keep people away from and upwind of spill/leak.

Avoid dust formation.

Avoid contact with spilled product or contaminated surfaces.

When dealing with a spillage do not eat, drink or smoke.

Environmental Precautions

Do not allow to get into surface water, drains and ground water.

If spillage enters drains leading to sewage works inform local water company immediately.

If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

Methods for cleaning up

Use approved industrial vacuum cleaner for removal.

Keep in suitable, closed containers for disposal.

Clean floors and contaminated objects with plenty of water.

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

Advice on safe handling

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

Avoid dust formation.

Use only in area provided with appropriate exhaust ventilation.

Storage

Requirements for storage areas and containers

Store in a place accessible by authorized persons only.

Keep away from direct sunlight.

Keep containers tightly closed in a dry, cool and well-ventilated place.

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Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Temperature tolerance	min.	max.
	-40 °C	40 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m ³		OES BCS*
Kaolin (Respirable dust.)	1332-58-7	2 mg/m ³ (TWA)	2007	EH40 WEL

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory Protection	Wear respirator with a particle filter mask (protection factor 4) conforming to European norm EN149FFP1 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.
Hand protection	Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.
Eye protection	Wear goggles conforming to EN166 (Field of Use 5 or equivalent).
Skin and body protection	Wear standard coverall and type 5 suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.
Hygiene measures	When using, do not eat, drink or smoke. Remove soiled clothing immediately and clean thoroughly before using again. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Wash hands immediately after work, if necessary take a shower.

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Form	dry, free flowing, water dispersible granules
Colour	beige
Odour	weak, characteristic

Safety data

pH	2.0 - 4.0 at 10 % (23 °C)
Bulk Density	630 - 730 kg/m ³ at 23 °C
Water solubility	dispersible

10. STABILITY AND REACTIVITY

Conditions to Avoid	Extremes of temperature and direct sunlight.
Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions. Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 (rat) > 3,465 mg/kg
Acute Inhalation Toxicity	LC50 (rat) 1.474 - 4.062 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol. Not relevant because of low dust formation.
Acute Dermal Toxicity	LD50 (rat) > 2,090 mg/kg
Skin Irritation	Slight irritant effect - does not require labelling. (rabbit)
Eye Irritation	Slight irritant effect - does not require labelling. (rabbit)
Sensitization	Non-sensitizing. (guinea pig) OECD Test Guideline 406, Buehler test

Further information

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 hours).
The toxicological data refer to a similar formulation.

12. ECOLOGICAL INFORMATION**Elimination information (persistence and degradability)**

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Bioaccumulation Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 1,400
The value mentioned relates to the active ingredient deltamethrin.

Ecotoxicity effects

Toxicity to Fish LC50 (Lepomis macrochirus (Bluegill sunfish)) 1.9 mg/l
Exposure time: 96 h
Test conducted with a similar formulation.

Toxicity to daphnia EC50 (Water flea (Daphnia magna)) 0.00018 mg/l
Exposure time: 96 h
Test conducted with a similar formulation.

Toxicity to algae EC50 (Selenastrum capricornutum) 41.7 mg/l
Exposure time: 72 h
Test conducted with a similar formulation.

13. DISPOSAL CONSIDERATIONS**Product**

In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging

Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times.

Add washings to sprayer at time of filling.

Dispose of empty and cleaned packaging safely.

Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose.

Return large containers to supplier.

Follow advice on product label and/or leaflet.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION**ADR/RID/ADNR**

UN-Number	3077
Labels	9
Packaging group	III
Hazard no.	90
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways.
Please refer to the manufacturer for further information.



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IMDG

UN-Number	3077
Labels	9
Packaging group	III
EmS	F-A , S-F
Marine pollutant	Marine pollutant
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)

IATA

UN-Number	3077
Labels	9
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)

UK 'Carriage' Regulations

UN-Number	3077
Labels	9
Packaging group	III
Hazard no.	90
Emergency action code	2Z
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)

15. REGULATORY INFORMATION

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3 and any subsequent amendments.

Classification:

Hazard warning labelling compulsory

Hazardous components which must be listed on the label:

- Deltamethrin

Symbol(s)

N Dangerous for the environment

R-phrase(s)

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S35 This material and its container must be disposed of in a safe way.
S57 Use appropriate container to avoid environmental contamination.

|| CLASSIFICATION ACCORDING TO SPECIFIC UK REGULATIONS:

|| The labelling information below is that which has been approved under 'The Control of Pesticides Regulations 1986' and/or 'Part III of the Food and Environment Protection Act 1985' and/or 'Plant Protection Product Regulations 1999' and any subsequent amendments and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet'.



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Symbol(s)

|||N

Dangerous for the environment

R-phrases(s)

|||R50/53

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

Exceptional labelling

To avoid risks to man and the environment, comply with the instructions for use.

Further information

WHO-classification: III (Slightly hazardous)

16. OTHER INFORMATION

Further information

Text of R-phrases mentioned in Section 3

R23/25	Toxic by inhalation and if swallowed.
R36	Irritating to eyes.
R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.

The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.

The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.