



## K-OTHRINE WG250

Version 6 / GB  
102000002830

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Revision Date: 24.07.2012  
Print Date: 02.08.2012

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

Trade name K-OTHRINE WG250  
Product code (UVP) 05942764

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use Insecticide

#### 1.3 Details of the supplier of the safety data sheet

Supplier Bayer Environmental Science  
230 Cambridge Science Park  
Milton Road  
Cambridge  
Cambridgeshire CB4 0WB  
Great Britain

Telephone 00800-1214 9451  
Telefax +44(0)1223 426240  
Responsible Department Email: [ukinfo@bayercropscience.com](mailto:ukinfo@bayercropscience.com)

#### 1.4 Emergency telephone no.

Emergency telephone no. 0800-220876 (UK 24 hr)  
+44(0)1635-563000 (Overseas 24 hr)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### Classification according to EU Directives 67/548/EEC or 1999/45/EC

N Dangerous for the environment, R50/53

#### 2.2 Label elements

##### Labelling 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'. Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Deltamethrin

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.

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

**2.3 Other hazards**

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).

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2 Mixtures****Chemical nature**

Water dispersible granules (WG)  
Deltamethrin 25% w/w

**Hazardous components**

R-phrases according to EC directive 67/548/EEC  
Hazard statements according to Regulation (EC) No. 1907/2006

Name	CAS-No. / EC-No.	Classification		Concentration [%]
		EC Directive 67/548/EEC	Regulation (EC) No 1272/2008	
Deltamethrin	52918-63-5 258-256-6	T; R23/25 N; R50/53	Acute Tox. 3, H331 Acute Tox. 3, H301 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	25.00
Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt	68425-94-5	Xi; R36/38	Skin Irrit. 2, H315 Eye Irrit. 2, H319	> 1.00 - < 20.00
Naphthalenesulfoni c acid, butyl-, Me derivs, sodium salts	68909-83-1	Xi; R36	Eye Irrit. 2, H319	> 1.00 - < 20.00
Citric acid	77-92-9 201-069-1	Xi; R36	Eye Irrit. 2, H319	> 1.00 - < 20.00
Docusate sodium	577-11-7 209-406-4	Xi; R38, R41	Eye Dam. 1, H318 Skin Irrit. 2, H315	> 1.00 - < 5.00
Kaolin	1332-58-7 310-194-1	Not classified	Not classified	> 1.00

**Further information**

Deltamethrin	52918-63-5	M-Factor: 1,000,000 (acute)
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For the full text of the R-phrases/ Hazard statements mentioned in this Section, see Section 16.

**SECTION 4: FIRST AID MEASURES**



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### 4.1 Description of first aid measures

#### General advice

Remove contaminated clothing immediately and dispose of safely.

#### Inhalation

Move the victim to fresh air and keep at rest. Call a physician or poison control center immediately.

#### 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.

### 4.2 Most important symptoms and effects, both acute and delayed

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

Systemic:, Discomfort in the chest, Tachycardia, Hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Dizziness, Blurred vision, Headache, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Palpitation, Muscular fasciculation, Apathy

### 4.3 Indication of any immediate medical attention and special treatment needed

#### 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.

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.



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### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

##### Suitable extinguishing media

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

##### Unsuitable extinguishing media

High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

Dangerous gases are evolved in the event of a fire.

#### 5.3 Advice for firefighters

##### 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.

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### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

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.

#### 6.2 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).

#### 6.3 Methods and materials for containment and cleaning up

##### 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

Check also for any local site procedures.

#### 6.4 Reference to other sections

Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

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### SECTION 7: HANDLING AND STORAGE

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**7.1 Precautions for safe handling****Advice on safe handling**

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

Avoid dust formation.

Ensure adequate ventilation.

**Hygiene measures**

When using, do not eat, drink or smoke.

Remove soiled clothing immediately and clean thoroughly before using again.

Contaminated work clothing should not be allowed out of the workplace.

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.

**7.2 Conditions for safe storage, including any incompatibilities****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.

**Advice on common storage**

Keep away from food, drink and animal feedingstuffs.

**Suitable materials**

Polypropylene-foil (PP)

**7.3 Specific end uses**

Refer to the label and/or leaflet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m <sup>3</sup> (TWA)		OES BCS*
Kaolin (Respirable dust.)	1332-58-7	2 mg/m <sup>3</sup> (TWA)	12 2011	EH40 WEL

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

**8.2 Exposure controls**

**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.**

**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.



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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.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Form	water-dispersible granules
Colour	beige
Odour	weak, characteristic
pH	2.0 - 4.0 at 1 % (23 °C) (deionized water)
Bulk density	630 - 730 kg/m <sup>3</sup>
Water solubility	dispersible

### 9.2 Other information

Further safety related physical-chemical data are not known.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions when stored and handled according to prescribed instructions.

### 10.4 Conditions to avoid

Extremes of temperature and direct sunlight.



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### 10.5 Incompatible materials

Store only in the original container.

### 10.6 Hazardous decomposition products

No decomposition products expected under normal conditions of use.

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

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)

Sensitisation Non-sensitizing. (guinea pig)  
OECD Test Guideline 406, Buehler test

#### Assessment repeated dose toxicity

Deltamethrin caused neurobehavioral effects and/or neuropathological changes in animal studies. The toxic effects of Deltamethrin are related to transient hyperactivity typical for pyrethroid neurotoxicity.

#### Assessment Mutagenicity

Deltamethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

#### Assessment Carcinogenicity

Deltamethrin was not carcinogenic in lifetime feeding studies in rats and mice.

#### Assessment Toxicity to Reproduction

Deltamethrin did not cause reproductive toxicity in a two-generation study in rats.

#### Assessment developmental toxicity

Deltamethrin caused developmental toxicity only at doses toxic to the dams. The developmental effects seen with Deltamethrin are related to maternal toxicity.

#### 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.

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## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity



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Toxicity to fish	LC50 (Lepomis macrochirus (Bluegill sunfish)) 1.9 mg/l Exposure time: 96 h Test conducted with a similar formulation.
Toxicity to aquatic invertebrates	EC50 (Water flea (Daphnia magna)) 0.00018 mg/l Exposure time: 48 h Test conducted with a similar formulation.
Toxicity to aquatic plants	EC50 (Selenastrum capricornutum) 41.7 mg/l Exposure time: 72 h Test conducted with a similar formulation.

### 12.2 Persistence and degradability

Biodegradability Not applicable for this mixture.

### 12.3 Bioaccumulative potential

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

### 12.4 Mobility in soil

Stability in water no data available

Stability in soil Not applicable for this mixture.

### 12.5 Results of PBT and vPvB assessment

Not relevant as no chemical safety report is necessary.

### 12.6 Other adverse effects

Additional ecological information  
No further ecological information is available.

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## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### 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

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14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
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.

**IMDG**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

**IATA**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE )
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

**UK 'Carriage' Regulations**

14.1 UN number	<b>3077</b>
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DELTAMETHRIN MIXTURE)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Emergency action code	2Z

**14.6 Special precautions for user**

See sections 6 to 8 of this Safety Data Sheet.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No transport in bulk according to the IBC Code.

**SECTION 15: REGULATORY INFORMATION**



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### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Further information

WHO-classification: III (Slightly hazardous)

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

## SECTION 16: OTHER 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.

Text of the hazard statements mentioned in Section 3

H301	Toxic if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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.

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 453/2010.

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