

**DELTAMETHRIN EC 25AK G****U-WW**

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Version 2 / EU
102000021192Revision Date: 07.12.2011
Print Date: 15.03.2012**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name	DELTAMETHRIN EC 25AK G	U-WW
Product code (UVP)	79510829	
Usage	Insecticide	
Company	Bayer CropScience AG Alfred-Nobel-Straße 50 40789 Monheim am Rhein Germany	
Telefax	+49(0)2173-38-7394	
Responsible Department	Product Safety and Specification Management +49(0)2173-38-3409/3189 (during business hours only) Email: BCS-MSDS@bayer.com	
Emergency telephone no.	+1 (760) 476-3964 (Company 3E for Bayer CropScience)	

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

Flammable.
Harmful by inhalation and if swallowed.
Irritating to respiratory system and skin.
Risk of serious damage to eyes.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful: may cause lung damage if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

Emulsifiable concentrate (EC)
Deltamethrin 25 g/l

Hazardous components

Name	CAS-No. / EC-No.	Symbol(s)	R-phrases(s)	Concentration [%]
Deltamethrin	52918-63-5 258-256-6	T, N	R23/25, R50/53	2,85
Branched calcium dodecyl benzene sulfonate	68953-96-8 273-234-6	Xi, N	R38, R41, R51/53	> 1,00 - < 25,00
2-Methylpropan-1-ol	78-83-1 201-148-0	Xi	R10, R37/38, R41, R67	> 1,00 - < 5,00
2,6-Di-tert-butyl-4-methylphenol	128-37-0 204-881-4	N	R50/53	> 0,10 - < 0,25
Solvent Naphtha (petroleum), light aromatic	64742-95-6 265-199-0	Xn, N	R10, R37, R51/53, R65, R66, R67	> 25,00



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

4. 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

In case of skin contact, immediately wash with plenty of soap and water for at least 15 minutes. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. 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

Keep at rest. Rinse mouth. Do NOT induce vomiting. Risk of product entering the lungs on vomiting after ingestion. Call a physician or poison control center immediately.

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, Sneezing

Symptoms

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

Risks

This product contains a pyrethroid.
Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.

Treatment

Local treatment:
Initial treatment: symptomatic.



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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.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Extinguishing media which shall not be used for safety reasons

High volume water jet

Specific hazards during firefighting

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 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.

Methods for cleaning up

Keep in suitable, closed containers for disposal.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Clean floors and contaminated objects with plenty of water.

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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.
 Ensure adequate ventilation.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition.
 Vapours may form explosive mixture with air.
 Take measures to prevent the build up of electrostatic charge.
 Use only explosion-proof equipment.

Storage

Requirements for storage areas and containers

Store in a place accessible by authorized persons only.
 Keep containers tightly closed in a dry, cool and well-ventilated place.
 Protect from freezing.
 Keep away from direct sunlight.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Suitable materials

Black mild steel sheet with interior coating
 Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0,02 mg/m ³ (TWA)		OES BCS*

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

Additional advice

Observe: Exposure Limits In Air, Group 3: 100 mg/m³/ 20 ppm. (aromatic-rich hydrocarbon mixes with > 25% aromatics TRGS 901, No. 72).

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.

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Respiratory protection	Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A 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 6 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. If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.
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.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	Liquid, clear
Colour	yellow
Odour	aromatic

Safety data

pH	4,5 - 7,0 at 1 % (23 °C) (deionized water)
Flash point	48 °C
Ignition temperature	> 450 °C The data refer to solvent naphtha petroleum.
Upper explosion limit	7,00 %(V) The data refer to solvent naphtha petroleum.

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Lower explosion limit	0,8 %(V) The data refer to solvent naphtha petroleum.
Relative vapour density	1,00 The data refer to solvent naphtha petroleum.
Density	ca. 0,89 g/cm ³ at 20 °C
Water solubility	miscible
Viscosity, kinematic	1,09 mm ² /s at 40 °C
Surface tension	27,3 mN/m at 40 °C

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 recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	LD50 (rat) 416 mg/kg
Acute inhalation toxicity	LC50 (rat) 2,69 mg/l Exposure time: 4 h
Acute dermal toxicity	LD50 (rat) > 2.000 mg/kg
Skin irritation	Irritating to skin. (rabbit)
Eye irritation	Severe eye irritation. (rabbit)
Sensitisation	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)**

||| Bioaccumulation
Lepomis macrochirus (Bluegill sunfish)
Bioconcentration factor (BCF): 1.400
The value mentioned relates to the active ingredient deltamethrin.

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Toxicity to fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 0,00026 mg/l Exposure time: 96 h Test conducted with a similar formulation.
Toxicity to aquatic invertebrates	EC50 (Water flea (<i>Daphnia magna</i>)) 0,0039 mg/l Exposure time: 48 h Test conducted with a similar formulation.
Toxicity to aquatic plants	EC50 (<i>Selenastrum capricornutum</i>) 1,7 mg/l Exposure time: 96 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.
Do not empty into drains.

Contaminated packaging

Triple rinse containers.
Do not re-use empty containers.
Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

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

UN-Number	1993
Labels	3
Packaging group	III
Hazard no.	30
Environm. Hazardous Mark	YES
Description of the goods	FLAMMABLE LIQUID, N.O.S. (DELTAMETHRIN, SOLVENT NAPHTHA (PETROLEUM) LIGHT AROMATIC SOLUTION)
Tunnel Code	D/E
Special Provision	640E

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

IMDG

UN-Number	1993
Labels	3
Packaging group	III
EmS	F-E , S-E
Marine pollutant	YES

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IATA

UN-Number	1993
Labels	3
Packaging group	III
Environm. Hazardous Mark	NO
Description of the goods	FLAMMABLE LIQUID, N.O.S. (DELTAMETHRIN, SOLVENT NAPHTHA (PETROLEUM) LIGHT AROMATIC SOLUTION)

15. REGULATORY INFORMATION**Labelling in accordance with the EC Directive on dangerous preparations 1999/45/EC as amended.**

Classified as hazardous for supply/use.

Hazardous components which must be listed on the label:

- Deltamethrin
- Solvent Naphtha (petroleum), light aromatic

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases(s)

R10	Flammable.
R20/22	Harmful by inhalation and if swallowed.
R37/38	Irritating to respiratory system and 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.
R65	Harmful: may cause lung damage if swallowed.

S-phrases(s)

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35	This material and its container must be disposed of in a safe way.
S39	Wear eye/face protection.
S57	Use appropriate container to avoid environmental contamination.
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Exceptional labelling

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

Further information

WHO-classification: II (Moderately hazardous)

16. OTHER INFORMATION**Further information**



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Text of R-phrases mentioned in Section 3

R10	Flammable.
R23/25	Toxic by inhalation and if swallowed.
R37	Irritating to respiratory system.
R37/38	Irritating to respiratory system 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.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

The information given in this Data Sheet has been included in accordance with the guidelines established by Regulation (EC) 1907/2006. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

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