

SAFETY DATA SHEET



Publication date: December 1994 Sheet number: BES/SA 0050 Revised on: 4 July 2014 Revision number: 8

1) IDENTIFICATION OF THE SUBSTANCE / PREPARATION

Commercial name: **K-O GARD® SC 10**

Usage: Insecticide

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

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Responsible department: Product Development and Regulatory Affairs
+27 11 921 5310/5663/5471/5639
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In case of poisoning emergencies:
Bayer (office hours only): +27 11 921 5310/5663/5471/5639
Tygerberg Poison Centre: +27 21 931 6129
Griffon Poison Information Centre: +27 82 446 8946

2) HAZARD IDENTIFICATION OF THE PRODUCT

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 THE INGREDIENTS

Chemical nature: Suspension concentrate (=flowable concentrate)(SC)
Deltamethrin 10 g/l

Hazardous components:

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Deltamethrin	52918-63-5 258-256-6	T, N	R23/25, R50/53	0,99
1,2-Propanediol	57-55-6 200-338-0			> 1.00

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

4) FIRST AID MEASURES

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

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: 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.

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

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.
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: Symptomatic.

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Systemic: 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

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 and/or explosion do not breathe fumes.
 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.
 If spillage enters drains leading to sewage works inform local water company immediately.
 Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
 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.
 Use only in area provided with appropriate exhaust ventilation.
 Advice on protection against fire and explosion: No special precautions required.
 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.
 Protect from freezing.
 Storage stability: Storage temperature should ideally lie between 0 and 40 °C, however, storage for two weeks at 54 °C has shown no adverse effects regarding product safety or stability.
 Suitable materials: HDPE (high density polyethylene)
 Advice on common storage: Keep away from food, drink and animal feedingstuffs.

8) EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters:

Components	CAS-No.	Control parameters	Update	Basis
Deltamethrin	52918-63-5	0.02 mg/m ³		OES BCS*

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1,2-Propanediol (Particulate.)	57-55-6	10 mg/m ³ (TWA)	2007	EH40 WEL
1,2-Propanediol (Total vapour and particulates.)	57-55-6	474 mg/m ³ / 150 ppm (TWA)	2007	EH40 WEL

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

Protective clothing during normal use: Wear gloves when mixing and applying the product.
Wear dust mask when applying the product.

Personal protective equipment in all other cases:

Respiratory protection: No personal respiratory protective equipment normally required.
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.

Hygiene measures: When using, do not eat, drink or smoke.
Remove soiled clothing immediately and clean thoroughly before using again.
Wash hands immediately after work, if necessary take a shower.

9) PHYSICAL AND CHEMICAL PROPERTIES

Form: Suspension
 Colour: Colourless to white
 Odour: Weak, characteristic
 pH: 2-6 at 100 % (20 °C) (determined in the undiluted form)
 Density: Approx. 1,01 g/cm³ at 20 °C
 Solubility: Product is miscible with water.

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 toxicity:
 LD₅₀ oral, rat: > 10 100 mg/kg
 LD₅₀ dermal, rat: > 10 100 mg/kg
 LD₅₀ inhalation: > 2.3 mg/ℓ (exposure 4 h).
 Highest attainable concentration.
 Irritation of the skin, rabbit: No skin irritation.
 Irritant to the mucous membranes, rabbit: Slightly irritant - does not require labelling.
 Sensitization, mouse: Non-sensitizing. The information is derived from the properties of the individual components.
 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).

12) ECOLOGICAL INFORMATION

Elimination information (persistence and degradability):
 Bioaccumulation: Bluegill sunfish
 Bioconcentration factor (BCF): 1,400

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Test substance: The value mentioned relates to the active ingredient deltamethrin.

Ecotoxicity effects:

Toxicity to fish:

LC₅₀: 0.00091 mg/l Rainbow trout (*Oncorhynchus mykiss*). Exposure time: 96 h

Test substance: The value mentioned relates to the active ingredient deltamethrin.

Toxicity to daphnia:

EC₅₀: 0.00056 mg/l Water flea (*Daphnia magna*). Exposure time: 48 h

Test substance: The value mentioned relates to the active ingredient deltamethrin.

Toxicity to algae:

EC₅₀: > 9.1 mg/l *Selenastrum capricornutum*. Exposure time: 96 h

Test substance: The value mentioned relates to the active ingredient deltamethrin.

13) DISPOSAL CONSIDERATIONS

Disposal of residue: Residue to be disposed of as for toxic waste in accordance with local/national regulations.

Disposal of used packaging material: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank. Destroy the empty container by perforation and flattening and dispose of as toxic waste in accordance with local/national regulations. DO NOT re-use for any other purpose.

14) TRANSPORT INFORMATION

UN Number: 3082

Class: 9

IMDG: -

Ems: F-A, S-F

MFAG: -

Subsidiary risk: •

Packing group: III

Declaration for land shipment: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

Declaration for sea shipment: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

Declaration for shipment by air: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DELTAMETHRIN SOLUTION)

Marine pollutant

15) REGULATORY INFORMATION

Classification: Hazard warning labelling compulsory.

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.

S-phrases(s):

S35: This material and its container must be disposed of in a safe way.

S57: Use appropriate container to avoid environmental contamination.

WHO Classification: III (Slightly hazardous)

16) OTHER INFORMATION

Text of R-phrases mentioned in Section 3:

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R23/25: Toxic by inhalation and if swallowed.

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

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.

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