

EC Safety Data Sheet

'KARATE ZEON'

Version: 6

Last change: 04/05/04

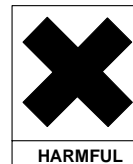
Date of issue: 04/05/04

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : 'KARATE ZEON'

Company : Syngenta Crop Protection AG
Postfach
CH-4002 Basel
Switzerland

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Product Description

A pyrethroid insecticide.
An aqueous suspension of microcapsules.

EC-No. : 415-130-7 Lambda-cyhalothrin
EC-No. : 200-338-0 Propane-1,2-diol (Propylene glycol)
EC-No. : 265-198-5 Solvent naphtha (petroleum), heavy aromatics
EC-No. : 220-120-9 1,2-benzisothiazol-3(2H)-one

| Hazardous ingredients | CAS-No. | Hazard symbols | Risk Phrases | Concentration |
|--|------------|----------------|---------------------|---------------|
| Lambda-cyhalothrin (Classification according to Directive 67/548/EEC) | 91465-08-6 | T+,N | R21-R25-R26-R50/53 | 100 g/l |
| Propane-1,2-diol (Propylene glycol) | 57-55-6 | | | < 500 g/l |
| Solvent naphtha (petroleum), heavy aromatics 1,2-benzisothiazol-3(2H)-one (Classification according to Directive 67/548/EEC) | 64742-94-5 | Xn,N | R65-R66-R51/53 | < 100 g/l |
| | 2634-33-5 | Xn | R22-R38-R41-R43-R50 | < 10 g/l |

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

3. HAZARDS IDENTIFICATION

Harmful by inhalation and if swallowed.
May cause sensitisation by skin contact.
May cause tingling/numbness in exposed areas (paresthesia).
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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4. FIRST AID MEASURES

- Eye contact : Immediately irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.
- Skin contact : Take off immediately all contaminated clothing. Wash skin immediately with water, followed by soap and water. Such action is essential to minimise contact with skin. Contaminated clothing should be laundered before re-issue.
- Inhalation : Remove patient from exposure, keep warm and at rest. Obtain medical attention as a precaution.
- Ingestion : If swallowed seek medical advice immediately and show the container, label or this Data Sheet, if possible. Do not induce vomiting.

Medical advice

If the amount of chemical is judged to be less than a lethal dose, observe the patient and treat symptomatically. If gastric lavage is considered necessary, prevent aspiration of gastric material. Consider administration of activated charcoal and a laxative.

5. FIRE FIGHTING MEASURES

Keep fire exposed containers cool by spraying with water.

- Extinguishing media : For small fires, use foam, carbon dioxide or dry powder extinguishant. For large fires, use foam or water-fog; avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.
- Protective Equipment : A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.
-

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemically resistant gloves, boots and coveralls. See Also Section 8
- Clean up methods : Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.

Spillages or uncontrolled discharges into water courses must be alerted to the appropriate regulatory body.

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7. HANDLING AND STORAGE

HANDLING

Read the label before use.

Safe handling
advice

: Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

STORAGE

Safe storage advice : Keep in original containers, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs.

Storage Life : Stable at 40°C, 8 weeks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protection

When using this product refer to the label for details.

Where suitable engineering controls are not fitted or are inadequate, wear suitable protective equipment.

When selecting personal protective equipment, users should consult their supplier to confirm that the equipment is suitable.

Respiratory protect. : Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. Respiratory protective equipment should conform to the appropriate EN standard.

Eye protection : Wear suitable eye/face protection conforming to EN 166

Hand protection : Wear suitable gloves conforming to EN 374
Suitable materials: nitrile rubber

Body protection : Wear suitable protective clothing.

Occupational exposure limitsHazardous ingredient : Propane-1,2-diol (Propylene glycol) OES/HSE
Total (vapour & particulates)
8 hr TWA 150 ppm
470 mg/m³
Particulates
8 hr TWA 10 mg/m³Hazardous ingredient : Lambda-cyhalothrin Syngenta OEL
8 hr TWA 0.04 mg/m³
Sk : Can be absorbed through skinHazardous ingredient : Mixed hydrocarbon solvents OEL
8 hr TWA 100 mg/m³
15 ppm
RCP (Reciprocal calculation procedure.)

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Not applicable to field use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : suspension of microcapsules
Colour : beige / cream
Odour : slight aromatic
Boiling point : approx 100 °C
Flash point : > 93 °C
Explosive properties : Non-explosive.
Specific gravity : 1.04
Solubility : miscible in/with water
pH-value (quant.) : 5
Viscosity : 107 cSt
 at 20 °C
Oxidizing properties : Non-oxidising

10. STABILITY AND REACTIVITY

Hazardous decomposition products : Combustion or thermal decomposition will evolve toxic and irritant vapours.

11. TOXICOLOGICAL INFORMATION**ACUTE TOXICITY (LETHAL DOSES)**

Oral Median Lethal Dose male rats
 : 334 mg/kg

Oral Median Lethal Dose female rats
 : 404 mg/kg

Harmful if swallowed.

Dermal Median Lethal Dose rat
 : > 2000 mg/kg

Unlikely to be hazardous by skin absorption.

| This health hazard assessment is based on information available on similar
| formulations.

| LC50 Inhalation rat
| : (estimated) > 2.5 mg/l 4 hours

ACUTE TOXICITY (IRRITATION, SENSITISATION ETC.)

Eye Irritation : Mild irritant to rabbit eyes.

Skin Irritation : Practically non-irritant to rabbit skin.

Skin Sensitisation - Buehler

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: It is a mild skin sensitiser in animal tests.

Other Effects

In humans may cause tingling or numbness in exposed areas (paraesthesia). The effect may result from splash, aerosol or transfer to the face from contaminated gloves and hands. This effect is transient, lasting up to 24 hours.

CHRONIC TOXICOLOGICAL EFFECTS / LONG TERM EXPOSURE**Long Term Exposure :**

No long term risks to man are associated with this material when handled and used as directed on the label.

12. ECOLOGICAL INFORMATION**ENVIRONMENTAL FATE AND DISTRIBUTION**

Inform. applies to : DO NOT USE
The substance is essentially insoluble in water.
The substance has low mobility in soil.

BIOACCUMULATIVE POTENTIAL

Inform. applies to : Lambda-cyhalothrin
The substance has high potential for bioaccumulation. It is rapidly metabolised and excreted.

PERSISTENCE AND DEGRADATION

Inform. applies to : Lambda-cyhalothrin
There is evidence of rapid hydrolysis in soil.
There is evidence of photodegradation in soil.
There is evidence of photodegradation in water.
There is evidence of rapid biodegradation in soil and water.

ECOTOXICITY

Toxicity to fish : LC50 96 hours mirror carp
: 12 µg/l

Toxicity to daphnia : EC50 48 hours Daphnia magna
: 2.6 µg/l

13. DISPOSAL CONSIDERATIONS

Do not contaminate ponds, waterways or ditches with chemical or used containers. Surplus material must be disposed of as detailed in the 'Guidelines for the avoidance, limitation and disposal of pesticide waste on the farm' GCPF, 1987. Empty containers should be washed and discarded. Empty containers should not be used for other purposes.

Disposal should be in accordance with local, state or national legislation.

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14. TRANSPORT INFORMATION

Road transport ADR/RID

UN No. : UN3082
 Class-primary : 9 Miscellaneous Dangerous Goods
 UN Pack. Group : III
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS LAMBDA-CYHALOTHRIN 10% AND SUBSTITUTED BENZENOID HYDROCARBONS)

Maritime transport IMDG

UN No. : UN3082
 Class-primary : 9 Miscellaneous Dangerous Goods
 UN Pack. Group : III
 Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS LAMBDA-CYHALOTHRIN 10% AND SUBSTITUTED BENZENOID HYDROCARBONS)
 Marine pollutant : Yes

Air transport ICAO/IATA

Not applicable

15. REGULATORY INFORMATION

Classification : **HARMFUL DANGEROUS FOR THE ENVIRONMENT**
 Hazard symbols : **Xn N**
 Risk Phrases : (R20/22) Harmful by inhalation and if swallowed.
 (R43) May cause sensitisation by skin contact.
 (R50/53) Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 Safety Phrases : (S2) Keep out of the reach of children.
 (S13) Keep away from food, drink and animal feeding stuffs.
 (S20/21) When using, do not eat, drink or smoke.
 (S35) This material and its container must be disposed of in a safe way.
 (S36/37) Wear suitable protective clothing and gloves.
 (S57) Use appropriate containment to avoid environmental contamination.
 Special label : To avoid risks to man and the environment, comply with the instructions for use.

This preparation is covered by the EEC Dangerous Preparations Directive. It has therefore been labelled in accordance with these regulations. Users should ensure that they comply with any relevant local, state or national legislation.

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16. OTHER INFORMATION

| Use: : A broad spectrum insecticide.

| Text of R phrases mentioned in Section 2

| (R21) Harmful in contact with skin.

| (R22) Harmful if swallowed.

| (R25) Toxic if swallowed.

| (R26) Very toxic by inhalation.

| (R38) Irritating to skin.

| (R41) Risk of serious damage to eyes.

| (R43) May cause sensitisation by skin contact.

| (R50) Very toxic to aquatic organisms.

| (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

| Read the label before you buy: use pesticides safely.

| ' ' is the property of a Syngenta Group company.

| This data sheet was prepared in accordance with Directive 91/155/EEC (93/112/EC, 2001/58/EC)

| The information on this sheet is not a specification, it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed.

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