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Dangerous for

the environment

Harmful

1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY UNDERTAKING:

PRODUCT INFORMATION

Product Name : KOMBAT MOSQUITO FREE

Design Code :

Registration No. : L8717, Act No. 36 of 1947

Use : Insecticide

Company : Kombat (Pty) Ltd

39 Dr. Gordon Road

Greytown 3250

Telephone : +27-33-417-1906/7

EMERGENCY TELEPHONE NUMBERS

SPILLAGES:

Emergency telephone: +27-82-446-8946 (all hours)

POISONING INCIDENTS:

Poison Information Centre of the Western Cape: +27-861-555-777 (all hours)

Griffon Poison Information Centre +27-82-446-8946 (all hours)

UFS Pharmacology/Toxicology information centre: +27-82-491-0160

2. HAZARD IDENTIFICATION

Possible Hazards (according to Directive 67/548/EWG or 1999/45/EC)

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical nature

Suspension concentrate (SC), Biocidal product

Hazardous ingredients

according to Directive 1999/45/EC

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Hazard symbol(s): T, N

Alpha-Cypermethrin Content (W/W): 5.9 % CAS Number: 67375-30-8 INDEX-Number: 607-422-00-X

R-phrase(s): 25, 37, 48/22, 50/53

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

4. FIRST- AID MEASURES

General advice:

Avoid contact with the skin, eyes and clothing. Take off immediately all contaminated clothing. First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). If difficulties occur: Obtain medical attention. Show container, label and/or safety data sheet to physician. If inhaled: Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

After contact with skin, wash immediately with plenty of water and soap. If irritation develops, seek medical attention.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control centre or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

Note to physician:

Symptoms: numbness and tingling of hands and feet, lung oedema, convulsions Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Water spray, foam, dry powder, carbon dioxide

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Specific hazards:

Carbon monoxide, hydrogen chloride, hydrogen cyanide, organochlorine compounds.

The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Remove contaminated clothes, undergarments and shoes immediately.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

Collect waste in suitable containers, which can be labelled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Incinerate or take to a special waste disposal site in accordance with local authority regulations.

7. HANDLING AND STORAGE

Handling:

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

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Storage:

Segregate from foods and animal feeds. Segregate from strong bases.

Further information on storage conditions: Keep away from heat. Protect against moisture.

Protect from direct sunlight.

Protect from temperatures below: -10 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above

indicated temperature for extended periods of time.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Wear respiratory protection if ventilation is inadequate. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Take off immediately all contaminated clothing. Store work clothing separately. Keep away from food, drink and animal feeding stuffs. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form: liquid, suspension

Colour: white

Odour: faintly aromatic

pH value: 7 - 8

(20 °C)

(measured with the undiluted

substance)

Boiling point: approx. 100 °C

Information applies to the solvent.

Flash point: > 100 °C

No flash point - Measurement made (DIN EN 22719; ISO 2719)

up to the boiling point.

Ignition temperature: 425 °C (Directive 92/69/EEC, A.15)

Explosion hazard: not explosive (Directive 92/69/EEC, A.14)

Fire promoting

properties: not fire-propagating

Vapour pressure: approx. 23 hPa (20 °C)

Information applies to the solvent.

Density: approx. 1.025 g/cm3 (OECD Guideline 109)

(20 °C)

Relative density: 1.030

(20 °C) (Calculated)

Solubility in water: dispersible

Surface tension: 40.7 mN/m

(20 °C; 1.0 %(V)) (OECD-Guideline 115)

Viscosity, dynamic: 28 mPa.s

(20°C) (OECD 114)

10. STABILITY AND REACTIVITY

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

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Substances to avoid:

Strong bases

Hazardous reactions:

No hazardous reactions if stored and handled as prescribed/indicated.

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Experimental/calculated data:

LD50 rat (oral): > 5,000 mg/kg (Guideline 92/69/EEC, B.1) LC50 rat (by inhalation): > 2.06 mg/l 4 h (OECD Guideline 403) Highest concentration available for testing. No mortality was observed. An aerosol was tested. LD50 rat (dermal): > 2,000 mg/kg (Directive 92/69/EEC, B.3)

Irritation

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (OECD Guideline 404)

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Serious eye damage/irritation rabbit:

Non-irritant (OECD Guideline 405)

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Respiratory/Skin sensitization

Experimental/calculated data:

Modified Buehler test guinea pig: Non-sensitizing. (OECD Guideline 406)

The product has not been tested. The statement has been derived from products of a similar structure and composition.

Other relevant toxicity information

Misuse can be harmful to health. May cause paraesthesia.

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12. ECOLOGICAL INFORMATION

Ecotoxicity

Information on: Alpha-Cypermethrin

Toxicity to fish:

LC50 (96 h) 2,8 µg/l, Oncorhynchus mykiss (OECD 203; ISO 7346; 84/449/EEC, C.1)

Information on: Alpha-Cypermethrin

Aquatic invertebrates:

EC50 (48 h) 0,3 μg/l, Daphnia magna (OECD Guideline 202, part 1)

Information on: Alpha-Cypermethrin

Aquatic plants:

 $EC50 (96 h) > 100 \mu g/l$, Scenedesmus subspicatus (OECD Guideline 201)

Persistence and degradability

Information on: Alpha-Cypermethrin

Assessment biodegradation and elimination (H2O):

Not readily biodegradable (by OECD criteria).

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. DISPOSAL CONSIDERATIONS

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. TRANSPORT INFORMATION

ADR

Hazard class: 9 Packing group: III ID number: UN 3082 Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(contains ALPHA-CYPERMETHRIN 6%)

RID

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9. EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(contains ALPHA-CYPERMETHRIN 6%)

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Inland waterway transport

ADNR

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(contains ALPHA-CYPERMETHRIN 6%)

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(contains ALPHA-CYPERMETHRIN 6%)

Air transport

IATA/ICAO

Hazard class: 9 Packing group: III ID number: UN 3082 Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(contains ALPHA-CYPERMETHRIN 6%)

15. REGULATORY INFORMATION

Regulations of the European union (Labelling) / National legislation/Regulations EEC Directives:

Hazard 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)

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 container to avoid environmental contamination.

Hazard determining component(s) for labelling: ALPHA-CYPERMETHRINE

The product contains: ALPHA-CYPERMETHRINE

May cause paraesthesia.

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Other regulations

For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)

16. OTHER INFORMATION

Declaration:

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and is presented in good faith believed to be correct. This information applies to the PRODUCT AS SUCH. In case of formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.

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