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#### 1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY UNDERTAKING:

#### PRODUCT INFORMATION

Product Name	:	KOMBAT ANT FREE
Design Code	:	A12690A
Registration No.	:	L8715, Act No. 36 of 1947
Use	:	Insecticide
Company	:	Kombat (Pty) Ltd 39 Dr. Gordon Road Greytown 3250
Telephone	:	+27-33-417-1906/7





Harmful

Dangerous for the environment

#### **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

Harmful by inhalation.

May cause sensitization by skin contact. May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components



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Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
Lambda-cyhalothrin	91465-08-6	415-130-7	T+, N	R21 R25 R26 R50/53	9.7 % W/W
Solvent naphtha (petroleum), light arom.	64742-95-6	265-199-0	Xn, N	R10 R37 R51/53 R65 R66 R67	5 - 10 % W/W
1,2-propanediol	57-55-6	200-338-0			5 - 10 % W/W
1,2-benzisothiasol- 3(2H)-one	2634-33-5	220-120-9	N, Xn	R22 R38 R41 R43 R50	0.05 – 1% W/W

\*indicates substances for which there are Community workplace exposure limits. For the full text of the R-phrases mentioned in this Section, see Section 16.

#### 4. FIRST- AID MEASURES

General advice :	Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison information center or physician, or going for treatment.
Inhalation :	Remove patient to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or Poison information centre immediately.
Skin contact :	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
Eye contact :	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required.
Ingestion :	If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.
Medical advice :	Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. Treat symptomatically. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

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5.	FIRE-FIGHTING MEASURES	
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Suitable extinguishing media	a :Extinguishing media - small fires Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
	Extinguishing media - large fires Alcohol-resistant foam Or Water spray
Extinguishing media which shall not be used for safety reasons :	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during fire fighting :	As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health.
Special protective equipment for fire-	
fighters :	Wear full protective clothing and self-contained breathing apparatus.
Further information :	Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions :	Refer to protective measures listed in sections 7 and 8.
Environmental precautions :	Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.
Methods for cleaning up :	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Additional advice :	If the product contaminates rivers and lakes or drains inform respective authorities.

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#### 7. HANDLING AND STORAGE

#### HANDLING

Advice on safe handling :	No special protective measures against fire required. Avoid contact with skin and eyes. When using, do not eat, drink or smoke. For personal protection see section 8.
STORAGE	
Requirements for storage Areas and containers :	No special storage conditions required. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feed stuffs.
Other data :	Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

#### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

#### Components with workplace control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
lambda-cyhalothrin	0.04 mg/m3 Skin	8 h TWA	SYNGENTA
solvent naphtha (petroleum), light arom	100 mg/m3	8 h TWA	SUPPLIER

#### ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

If airborne mists or vapours are generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

#### PERSONAL PROTECTIVE EQUIPMENT

Protective measures :	The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.

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Respiratory protection :	A combination gas, vapor and particulate respirator may be necessary until effective technical measures are installed. Protection provided by air-purifying respirators is limited. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.
Hand protection :	Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Suitable material Nitrile rubber
Eye protection :	Eye protection is not usually required. Follow any site specific eye protection policies.
Skin and body protection :	Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.) Wear as appropriate: impervious protective suit

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form :	liquid
Colour :	white to light brown
рН :	4 -8 at 1 % w/v
Flash point :	> 97 °C at 100.9 kPa
Oxidizing properties :	Not oxidizing
Explosive properties :	Not explosive
Density :	1.047 g/cm3 at 20 °C
Solubility in other solvents :	Miscible in Water
Viscosity, dynamic :	79.5 -448 mPa.s at 20 °C 58.1 -334 mPa.s at 40 °C

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#### **10. STABILITY AND REACTIVITY**

Hazardous decomposition products:	Combustion or thermal decomposition will produce toxic and irritant vapours.
Hazardous reactions :	None known. Hazardous polymerization does not occur. Stable under normal conditions.

#### **11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity :	LD50 Rat, > 5,000 mg/kg	
Acute inhalation toxicity :	LC50 Rat, > 4.62 mg/l, 4 h	
Acute dermal toxicity :	LD50 Rat, > 4,000 mg/kg	
Skin irritation :	Rabbit: Slightly Irritating May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia.	
Eye irritation :	Rabbit: Mild eye irritation	
Sensitisation :	Likely to cause skin sensitization. Derived from components.	
Long term toxicity :	Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.	

#### **12. ECOLOGICAL INFORMATION**

#### ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)

Bio-accumulation :	Lambda-cyhalothrin bio-accumulates.
Stability in water :	Degradation half-life: 56 d Lambda-cyhalothrin is not persistent in water.
Stability in soil :	Degradation half-life : ca. 7 d Lambda-cyhalothrin is not persistent in soil.
Mobility :	Lambda-cyhalothrin is immobile in soil.
ECOTOXICITY EFFECTS	
Toxicity to fish :	LC50 Oncorhynchus mykiss (rainbow trout), 4 µg/l derived from components.

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Toxicity to daphnia and other aquatic invertebrates :	EC50 <i>Daphnia magna</i> (Water flea), 4 μg/l , 48 h Derived from components.
Toxicity to algae :	ErC50 <i>Pseudokirchneriella subcapitata</i> (green algae), > 10 mg/l, 96 h Derived from components. EbC50 <i>Pseudokirchneriella subcapitata</i> (green algae), > 10 mg/l, 96 h Derived from components.

#### **13. DISPOSAL CONSIDERATIONS**

Product :	Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.
Contaminated packaging :	Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

#### 14. TRANSPORT INFORMATION

#### Land transport

ADR/ RID: UN-Number: 3082 Class: 9 Labels: 9 Packaging group III Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LAMBDA-CYHALOTHRIN AND SUBSTITUTED BENZENOID HYDROCARBONS )

#### Sea transport

IMDG: UN-Number: 3082 Class: 9 Labels: 9 Packaging group: III Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LAMBDA-CYHALOTHRIN AND SUBSTITUTED BENZENOID HYDROCARBONS ) Marine pollutant : Marine pollutant

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#### Air transport

IATA-DGR UN-Number: 3082 Class: 9 Labels: 9 Packaging group: III Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LAMBDA-CYHALOTHRIN AND SUBSTITUTED BENZENOID HYDROCARBONS )

#### 15. REGULATORY INFORMATION

#### Labelling according to EC Directives

Hazardous components which must be listed on the label:

- lambda-cyhalothrin
- 1,2-benzisothiazol-3(2H)-one

Symbol(s) :	Xn N	Harmful Dangerous for the environment
R-phrase(s) :	R20 R43 R50/53	Harmful by inhalation. May cause sensitisation by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s) :	S35	<ul> <li>Keep out of the reach of children.</li> <li>Keep away from food, drink and animal feedingstuffs.</li> <li>When using do not eat, drink or smoke.</li> <li>This material and its container must be disposed of in a safe way.</li> <li>Wear suitable protective clothing and gloves.</li> <li>Use appropriate container to avoid environmental contamination.</li> </ul>
Special labelling of certain preparations :		id risks to man and the environment, comply with the tions for use.
Note :	•	eparation is classified as dangerous in accordance with ve 1999/45/EC.

#### 16. OTHER INFORMATION

**Further information** 

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Text of R-phrases mentioned in Section 3:

R10	Flammable.
R21	Harmful in contact with skin.
R22	Harmful if swallowed.
R25	Toxic if swallowed.
R26	Very toxic by inhalation.
R37	Irritating to respiratory system.
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.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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

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