



Bayer Environmental Science

PYBUTHRIN 33 SL3/27

Version 1
Revision Date 15.01.2003

GB
102000001390

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**Product information**

Trade name : PYBUTHRIN 33 SL3/27
 Product code : AE F027198 04 UL04 A1
 Specification : 21273
 Usage : insecticide
 Company : Bayer Environmental Science
 Durkan House
 214-224 High Street
 Waltham Cross
 Hertfordshire EN8 7DP
 United Kingdom

Telephone : +44(0)1992 784270
 Telefax : +44(0)1992 784276

Emergency telephone number : 0800-220876 (UK only)
 +44(0)1223-870312

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

Ultra-low volume (ULV) liquid (UL), contains:
 Pyrethrins/Piperonyl Butoxide 3:30 g/l

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases)	Concentration [%]
pyrethrins including cinerins	8003-34-7	Xn, N	R20/21/22 R50/53	0.38
Piperonyl butoxide	51-03-6	N	R50/53	3.40
Odourless Kerosine	64742-47-8	Xn	R65 R66	> 50.00

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

Irritating to skin.
 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 Harmful: may cause lung damage if swallowed.

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4. FIRST AID MEASURES

- General advice : Remove contaminated, soaked clothing immediately and dispose of safely.
- Inhalation : Move the patient to fresh air and keep at rest. If symptoms persist, call a physician.
- Skin contact : Wash off immediately with soap and plenty of water. After skin contact: Apply Vitamin E cream or simple toilet milks. When symptoms persist or in all cases of doubt seek medical advice.
- Eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Ingestion : Do not induce vomiting. Wash out mouth with water. Keep at rest. Obtain medical attention.

Notes to physician

- Symptoms : Local:, After skin contact: Paresthesia (local).
- Symptoms : Systemic:, dizziness, headache, nausea, anorexia, apathy, muscular fasciculation
- Risks : This product/preparation contains a pyrethrin.
Must NOT be confused with organophosphorus compounds!
Risk of product entering the lungs on vomiting after ingestion.
- Treatment : Local treatment:
Initial treatment should be symptomatic and supportive.
After eye contact: Instillation of local anaesthetic drops e.g. 1% Amethocaine Hydrochloride eye drops. Give Analgesics as necessary.
- Treatment : Systemic treatment:
In the event of a mouthful or more being ingested, the following measures should be considered:
Endotracheal intubation should be done and gastric lavage performed, followed by administration of charcoal.
Monitoring of respiratory and cardiac functions.
Check for pulmonary oedema in event of inhalation.
Against convulsions: Give diazepam: for adults 5-10 mg intravenously as necessary until fully sedated; for children 2.5 mg i.v.
There is no specific antidote.
Contraindication: atropine
Contraindication: derivatives of adrenaline
Recovery: Spontaneous.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray
alcohol-resistant foam



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- dry powder
carbon dioxide (CO₂)
- Extinguishing media which must not be used for safety reasons : high volume water jet
- Specific hazards during fire fighting : In case of fire the evolution of dangerous gases is possible.
- Special protective equipment for fire-fighters : In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire fighting if necessary.
- 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 bunding area with sand or earth.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.
- Environmental precautions : Keep people and animals away. Do not discharge into the drains/surface water/groundwater. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).
- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Transfer collected material to heavy duty plastic drums and keep safe for disposal. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations
- 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. Provide good ventilation of working area (local exhaust



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ventilation if necessary).

Advice on protection against fire and explosion : The product is combustible.
Keep away from sources of ignition - No smoking.
Vapours may form explosive mixture with air.

Storage

Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place.
Store in a place accessible by authorized persons only.

Further information on storage conditions : Keep away from direct sunlight.
Protect against frost.

Advice on common storage : Keep away from food, drink and animal feedingstuffs.

Storage temperature : 0 - 30 °C

Suitable materials : Keep in original packaging, tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of substances Hazardous to Health Regulations 1999 as amended). Engineering controls should be used in preference to personal protective equipment wherever practicable.

Additional advice : Observe: Exposure Limits In Air, Gp1 1000mg/m³/200ppm.
(aromatic-free or de-aromatised hydrocarbon mixes with < 1% aromatics < 5% n-hexane, < 25% cyclo/Isohexane TRGS 901 No. 72)

Personal protective equipment

Respiratory protection : Short term: filter apparatus, Filter A

Hand protection : Chemical resistant gloves
PVC gloves
nitrile gloves

Eye protection : Chemical resistant goggles must be worn.

Skin and body protection : Light protective clothing, PVC
PVC boots

Hygiene measures : When using, do not eat, drink or smoke.
Remove soiled clothing immediately.
Remove soaked clothing immediately.
Clean hands and face at work intervals and after work.
Work in an adequately ventilated room.

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102000001390**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**Form : Liquid
Colour : light yellow, clear
Odour : characteristic**Safety data**Flash point : ca. 65 °C
Method: closed cup

Ignition temperature : 230 °C
Note: The data relate to the solvent

Upper explosion limit : 13.00 %(V)
Note: The data relate to the solvent

Lower explosion limit : 0.60 %(V)
Note: The data relate to the solvent

Vapour pressure : 0.67 hPa
Note: The data relate to the solvent

Relative vapour density : 4.5
Note: The data relate to the solvent

Density : ca. 0.80 g/cm³ at 20 °C

Water solubility : Note: insoluble

Partition coefficient (n-octanol/water) : log Pow: 4.3 - 5.9
Note: The value mentioned relates to the active ingredient pyrethrin.

Partition coefficient (n-octanol/water) : log Pow: 4.75
Note: The value mentioned relates to the active ingredient piperonyl butoxide.

Viscosity, dynamic : 1.77 mPa.s at 40 °C

Surface tension : 24.9 mN/m at 40 °C

Other information : Combustible liquid**10. STABILITY AND REACTIVITY**Conditions to avoid : Note: Extremes of temperature and direct sunlight.

Materials to avoid : None

Hazardous reactions : No hazardous reactions when stored and handled according



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to prescribed instructions.
Note: Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity : LD50 (rat) > 5,000 mg/kg
Test substance: Test conducted with a similar formulation.
- Acute inhalation toxicity : LC50 (rat) > 5.10 mg/l
Exposure time: 4 h
Test substance: Test conducted with a similar formulation.
- Acute dermal toxicity : LD50 (rat) > 4,000 mg/kg
Test substance: Test conducted with a similar formulation.
- Skin irritation : rabbit
Result: Irritating to skin.
- Eye irritation : rabbit
Result: Mild eye irritation

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

- Bioaccumulation : Bluegill sunfish
Bioconcentration factor (BCF): 471
Test substance: The value mentioned relates to the active ingredient pyrethrin.

Ecotoxicity effects

- Toxicity to fish : LC50: 0.0052 mg/l
Rainbow trout
Exposure time: 96 h
Test substance: The value mentioned relates to the active ingredient pyrethrin.
- Toxicity to fish : LC50: 0.01 mg/l
Bluegill sunfish
Exposure time: 96 h
Test substance: The value mentioned relates to the active ingredient pyrethrin.
- Toxicity to fish : LC50: 0.016 mg/l
Cyprinodon variegatus (sheepshead minnow)
Exposure time: 96 h
Test substance: The value mentioned relates to the active ingredient pyrethrin.
- Toxicity to fish : LC50: 6.12 mg/l

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		Rainbow trout Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to fish	:	LC50: 5.37 mg/l Bluegill sunfish Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to fish	:	LC50: 3.94 mg/l Cyprinodon variegatus (sheepshead minnow) Exposure time: 96 h Test substance: The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to daphnia	:	EC50: 0.012 mg/l Daphnia Exposure time: 48 h Test substance: The value mentioned relates to the active ingredient pyrethrin.
Toxicity to daphnia	:	EC50: 0.51 mg/l Water flea (Daphnia magna) Exposure time: 48 h Test substance: The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to algae	:	EC50: > 9.1 mg/l Algae Exposure time: 72 h Test substance: The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to other organisms	:	LD50: > 2,000 mg/kg Bobwhite quail Test substance: The value mentioned relates to the active ingredient pyrethrin.
Toxicity to other organisms	:	LD50: > 2,250 mg/kg Bobwhite quail Test substance: The value mentioned relates to the active ingredient piperonyl butoxide.

13. DISPOSAL CONSIDERATIONS

Product	:	In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority Can be landfilled or incinerated, when in compliance with local regulations. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).
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Contaminated packaging : Packaging that cannot be cleaned should be disposed of as product waste.
Empty containers can be landfilled, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

14. TRANSPORT INFORMATION

ADR/RID	: UN-No	3082
	Class	9
	Packaging group	III
	Hazard no.	90
	Description of the goods	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS)
ADNR	: UN-No	3082
	Class	9
	Item	11
	Letter	c
	Description of the goods	3082 Environmentally hazardous substance, liquid, n.o.s. (PYRETHRINS)
IMDG	: UN-No	3082
	Class	9
	Packaging group	III
	EmS	NONE
	Marine pollutant	P
	Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS 0.38%)
IATA	: UN-No	3082
	Class	9
	Packaging group	III
	Description of the goods	Environmentally hazardous substance, liquid, n.o.s. (PYRETHRINS 0.38%)
CDG CPL	: UN-No	3082
	Class	9
	Packaging group	III
	Hazard identification number	90
	Emergency action code	2X
	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS)

15. REGULATORY INFORMATION

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3.



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Hazardous components which must be listed on the label:

- pyrethrins including cinerins
- Piperonyl butoxide
- Odourless Kerosine

Exceptional labelling of special preparations : Restricted to professional users.
To avoid risks to man and the environment, comply with the instructions for use.

Symbol(s):	: Xn N	Harmful Dangerous for the environment
R-phrase(s)	: R38 R51/53 R65	Irritating to skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed.
S-phrase(s)	: S35 S57 S62	This material and its container must be disposed of in a safe way. Use appropriate containment to avoid environmental contamination. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

16. OTHER INFORMATION**Further information**

Text of R phrases mentioned in Section 2:

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
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.
R66	Repeated exposure may cause skin dryness or cracking.

The above information is intended to give general health and safety guidance on the storage and transport of the product.

It is not intended to apply to the use of the product for which purposes the product label and any appropriate technical usage literature available should be consulted and any relevant licenses, consents or approvals complied with.



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The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given.
The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.
No liability will be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.

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