

**PYBUTHRIN (EFFLUENT) UL33 TAN NVM FR**Version 2 / GB
1020000013901/9
Revision Date: 28.03.2008
Print Date: 11.04.2008**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name PYBUTHRIN (EFFLUENT) UL33 TAN NVM FR
Product code (UVP) 05937876
Usage Insecticide
Company Bayer Environmental Science
230 Cambridge Science Park
Milton Road
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2. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

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

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

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

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Pyrethrins including cinerins	8003-34-7 232-319-8	Xn, N	R20/21/22, R50/53	0.38
Piperonyl butoxide	51-03-6 200-076-7	N	R50/53	3.40
Distillates (petroleum), hydrotreated light	64742-47-8 265-149-8	Xn	R38, R65	> 20.00

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

4. FIRST AID MEASURES**General advice**

Remove contaminated clothing immediately and dispose of safely.



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Inhalation

Move to fresh air. Keep patient warm and 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 a simple body milk. If symptoms persist, call a physician.

Eye contact

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion

Do NOT induce vomiting. Keep at rest. Rinse mouth. Obtain medical attention. Risk of product entering the lungs on vomiting after ingestion.

Notes to Physician

Symptoms

Local:, skin and eye paraesthesia which may be severe

Symptoms

Systemic:, dizziness, headache, anorexia, Nausea, muscular fasciculation

Risks

This product contains a pyrethrin.
Must NOT be confused with organophosphorus compounds!

Treatment

Local treatment:
Initial treatment: symptomatic.
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 and gastric lavage, 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.
Spontaneous recovery.

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.



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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.

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).

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

Keep away from heat and sources of ignition.

Vapours may form explosive mixture with air.

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.

Advice on common storage

Keep away from food, drink and animal feedingstuffs.

Storage stability

Other data

Storage temperature should ideally lie between 0 and 40 °C, however, storage for two weeks at 54 °C has shown no adverse

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effects regarding product safety or stability.

Suitable materials

- Black mild steel sheet with interior coating
- Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH)
- Coextruded containers with an internal barrier layer made of polyamide (PA).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
Pyrethrins including cinerins	8003-34-7	1 mg/m ³ (TWA)	2007	EH40 WEL
Pyrethrins including cinerins	8003-34-7	1 mg/m ³ (TWA)	02 2006	EU ELV
Piperonyl butoxide	51-03-6	500 ppm		OES BCS*

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

Additional Advice

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

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory Protection

Wear respirator with an organic vapours and gas filter mask (protection factor 10) conforming to EN140 type A or equivalent. 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.



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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

Appearance

Colour colourless to yellowish

Safety data

Flash point approx. 65 °C

Ignition temperature 230 °C
The data refer to the solvent.

Upper explosion limit 13.00 %(V)
The data refer to the solvent.

Lower explosion limit 0.60 %(V)
The data refer to the solvent.

Relative vapour density 4.5
The data refer to the solvent.

Density approx. 0.81 g/cm³ at 20 °C

Water solubility insoluble

Viscosity, kinematic 1.77 mm²/s at 40 °C

Surface tension 24.9 mN/m at 40 °C

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 Oral Toxicity LD50 (rat) > 5,000 mg/kg
Test conducted with a similar formulation.

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Acute Inhalation Toxicity	LC50 (rat) > 5.10 mg/l Exposure time: 4 h When inhaled in high concentration, the solvent vapours cause a narcotic effect. Test conducted with a similar formulation.
Acute Dermal Toxicity	LD50 (rat) > 4,000 mg/kg Test conducted with a similar formulation.
Skin Irritation	Irritating to skin. (rabbit)
Eye Irritation	Slight irritant effect - does not require labelling. (rabbit)
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): 471 The value mentioned relates to the active ingredient pyrethrin.
Bioaccumulation	Lepomis macrochirus (Bluegill sunfish) Bioconcentration factor (BCF): 260 The value mentioned relates to the active ingredient piperonyl butoxide.

Ecotoxicity effects

Toxicity to Fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 0.0052 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient pyrethrin.
Toxicity to Fish	LC50 (<i>Cyprinodon variegatus</i> (sheepshead minnow)) 3.94 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to daphnia	EC50 (<i>Daphnia</i>) 0.012 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient pyrethrin.
Toxicity to daphnia	EC50 (<i>Daphnia magna</i>) 0.51 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient piperonyl butoxide.

13. DISPOSAL CONSIDERATIONS



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Product

In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging

Empty remaining contents.

Do not use containers for other products.

Clean container with water.

Rinsed packaging may be acceptable for landfill, otherwise incineration will be required in accordance with local regulations.

Not completely emptied packagings should be disposed of as hazardous waste.

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN-Number	3082
Labels	9
Packaging group	III
Hazard no.	90
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS SOLUTION)

IMDG

UN-Number	3082
Labels	9
Packaging group	III
EmS	F-A , S-F
Marine pollutant	Marine pollutant
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS SOLUTION)

IATA

UN-Number	3082
Labels	9
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS SOLUTION)

UK 'Carriage' Regulations

UN-Number	3082
Labels	9
Packaging group	III
Hazard no.	90
Emergency action code	3Z
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.



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(PYRETHRINS SOLUTION)

15. REGULATORY INFORMATION

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

Classification:

|| Hazard warning labelling compulsory

Hazardous components which must be listed on the label:

- Pyrethrins including cinerins
- Piperonyl butoxide
- Distillates (petroleum), hydrotreated light

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases(s)

R38	Irritating to skin.
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.

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.
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

CLASSIFICATION ACCORDING TO SPECIFIC UK REGULATIONS:

The labelling information below is that which has been approved under 'The Control of Pesticides Regulations 1986' and/or 'Part III of the Food and Environment Protection Act 1985' and/or 'Plant Protection Product Regulations 1999' and any subsequent amendments and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet'.

Symbol(s)

Xn	Harmful
N	Dangerous for the environment

R-phrases(s)

R36/38	Irritating to eyes and skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.

Exceptional labelling

To avoid risks to man and the environment, comply with the instructions for use.

Further information

WHO-classification: III (Slightly hazardous)

16. OTHER INFORMATION

Further information



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Text of R phrases mentioned in Section 3:

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R38	Irritating to skin.
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.

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.

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