

**SOLFAC VLOEIBAAR 12X1 L BOT NL**Version 2 / EU
1020000063751/7
Revision Date: 02.05.2007
Print Date: 04.01.2010**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name SOLFAC VLOEIBAAR 12X1 L BOT NL
Product code (UVP) 00787809
Usage Insecticide
Company Bayer CropScience AG
Alfred-Nobel-Straße 50
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Germany

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Responsible Department Material and Transport Safety Management
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Emergency telephone number +49(0)2133-51-4233 (Sicherheitszentrale Dormagen, Bayer AG)

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**Emulsion, oil in water (EW)
Cyfluthrin 50 g/l**Hazardous components**

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrases(s)	Concentration [%]
Cyfluthrin	68359-37-5 269-855-7	T+, N	R23, R28, R50/53	5,00
Solvent Naphtha (petroleum), light aromatic	64742-95-6	Xn, N	R10, R37, R51/53, R65, R66, R67	9,00

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

|| **Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.**
|| **May cause sensitization by skin contact.**

4. FIRST AID MEASURES**General advice**

Move out of dangerous area. Place and transport victim in stable position (lying sideways).
Remove contaminated clothing immediately and dispose of safely.

Inhalation

Move the patient to fresh air and keep at rest.

Skin contact

|| **Wash off immediately with soap and plenty of water. After skin contact: Apply Vitamin E cream**



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|| or a simple body milk. Call a physician or poison control center immediately.

Eye contact

|| Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.

Ingestion

Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

Notes to Physician

Symptoms

Local:, skin and eye paraesthesia which may be severe, Usually transient with resolution within 24 hours., eye and mucous membrane irritation, cough

Symptoms

Systemic:, discomfort in the chest, bronchial hypersecretion, pulmonary oedema, tachycardia, low blood pressure, Palpitation, Vomiting, Diarrhoea, Abdominal pain, Nausea, Salivation, dizziness, blurred vision, headache, apathy, anorexia, somnolence, Coma, spasm, Convulsions, Tremors, ataxia, muscular fasciculation

Risks

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

Treatment

Local treatment:
After eye contact: Instillation of local anaesthetic drops e.g. 1% Amethocaine Hydrochloride eye drops. Give Analgesics as necessary.

Treatment

Systemic treatment:
Endotracheal intubation and gastric lavage, followed by administration of charcoal and sodium sulphate.
Monitoring of respiratory and cardiac functions.
Anti-convulsive therapy: Diazepam i.v. is the remedy of choice; barbiturates, e.g. phenobarbital and calcium gluconate, may also be used.
There is no specific antidote.
Contraindication: derivatives of adrenaline.
Contraindication: atropine.
Spontaneous recovery.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray
Carbon dioxide (CO₂)
Foam
Sand

Specific hazards during fire fighting

In the event of fire the following can be released:
hydrogen chloride (HCl)
Hydrogen cyanide (hydrocyanic acid)
Hydrogen fluoride
carbon monoxide (CO)
nitrogen oxides (NO_x)



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Special protective equipment for fire-fighters

In the event of fire and/or explosion do not breathe fumes.
In the event of fire, wear self-contained breathing apparatus.

Further information

Contain the spread of the fire-fighting media.
Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Avoid contact with spilled product or contaminated surfaces.
Use personal protective equipment.

Environmental Precautions

Do not allow to get into surface water, drains and ground water.

Methods for Cleaning Up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Clean contaminated floors and objects thoroughly, observing environmental regulations.
Keep in suitable, closed containers for disposal.

Additional Advice

Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling

Advice on safe handling
Use only in area provided with appropriate exhaust ventilation.

Storage

Requirements for storage areas and containers

||| Store in a place accessible by authorized persons only.
||| Store in original container.
||| 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

Storage temperature 0 - 50 °C

Suitable materials

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).
Combination of sheet metal and HDPE
Deformation through oxygen consumption possible.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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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	No personal respiratory protective equipment normally required. 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 3 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.
Hygiene measures	Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Shower or bathe at the end of working. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

Protective measures

If product is handled while not enclosed, and if contact may occur:
Complete suit protecting against chemicals

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	liquid, cloudy
Colour	white
Odour	aromatic

Safety data

Freezing temperature	-1 °C
Boiling point/ range	approx. 100 °C
Flash point	Not relevant; aqueous solution
Ignition temperature	> 600 °C
Vapour pressure	27 hPa at 20 °C

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Vapour pressure	134 hPa at 50 °C
Vapour pressure	170 hPa at 55 °C
Density	approx. 1,01 g/cm ³ at 20 °C
Water solubility	emulsifiable
Viscosity, kinematic	19,1 mm ² /s at 20 °C
Surface tension	51 mN/m

10. STABILITY AND REACTIVITY

Hazardous Reactions	No hazardous reactions when stored and handled according to prescribed instructions.
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11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 (rat) 2.113 mg/kg
Acute Inhalation Toxicity	LC50 (rat) > 7,576 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol. Highest attainable concentration.
Acute Dermal Toxicity	LD50 (rat) > 5.000 mg/kg
Skin Irritation	Slight irritant effect - does not require labelling. (rabbit)
Eye Irritation	Slight irritant effect - does not require labelling. (rabbit)
Sensitization	sensitizing (mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to Fish	LC50 (Rainbow trout (<i>Oncorhynchus mykiss</i>)) 0,00047 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient.
Toxicity to daphnia	EC50 (Water flea (<i>Daphnia magna</i>)) 0,00016 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient.

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Toxicity to algae IC50 (Desmodesmus subspicatus) > 10 mg/l
Growth rate Exposure time: 72 h
The value mentioned relates to the active ingredient.
No acute toxicity was observed at its limit of water solubility.

13. DISPOSAL CONSIDERATIONS**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.

Contaminated packaging

Completely emptied and rinsed containers of pesticides to be taken to the free-of-cost collection system for packaging materials in agriculture PAMIRA. Smaller packagings (consumer products) can also be disposed of through the cost-free Dual Collection System (Green Dot).

Waste key for the unused product

020108 agrochemical waste containing dangerous substances

14. TRANSPORT INFORMATION**ADR/RID/ADNR**

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

IMDG

UN-No.	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. (CYFLUTHRIN SOLUTION)

IATA

UN-No.	3082
Labels	9
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYFLUTHRIN SOLUTION)

15. REGULATORY INFORMATION

Classification and labelling in accordance with the EC Directive on dangerous preparations 1999/45/EC as amended.

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Classification:

|| Labelling according to EC Directives

Hazardous components which must be listed on the label:

- Cyfluthrin

Symbol(s)

|| Xi Irritant
|| N Dangerous for the environment

R-phrase(s)

|| R43 May cause sensitization by skin contact.
|| R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

|| S24 Avoid contact with skin.
|| S35 This material and its container must be disposed of in a safe way.
|| S37 Wear suitable gloves.
|| S57 Use appropriate container to avoid environmental contamination.

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**

Text of R phrases mentioned in Section 2:

R10	Flammable.
R23	Toxic by inhalation.
R28	Very toxic if swallowed.
R37	Irritating to respiratory system.
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 given in this Data Sheet has been included in accordance with the guidelines established by EC Directive 1991/155/EC as amended. This data sheet complements the user's instructions, but does not replace them. The information it contains is based on the knowledge available about the product concerned at the time it was compiled. Users are further reminded of the possible risks of using a product for purposes other than those for which it was intended. The required information complies with current EEC legislation. Addressees are requested to observe any additional national requirements.

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