

**AQUA RESIGEN**Version 1 / EU
1020000118081/8
Revision Date: 15.08.2008
Print Date: 16.12.2009**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name	AQUA RESIGEN
Usage	Insecticide
Company	Bayer CropScience AG Alfred-Nobel-Straße 50 40789 Monheim am Rhein Germany
Telephone	+49(0)2173-38-3373
Telefax	+49(0)2173-38-7394
Responsible Department	Material and Transport Safety Management +49(0)2173-38-3409/4566 Email: INFO.EHS@bayercropscience.com
Emergency telephone number	+49(0)2133-51-4233 (Sicherheitszentrale Dormagen, Bayer AG)
Local Distributor	Bayer Co (Malaysia) Sdn Bhd T1-14, Jaya 33, No. 3, Jalan Semangat, Seksyen 13, 46200 Petaling Jaya, Selangor, Malaysia Email: es.malaysia@bayercropscience.com
Telephone	+ 60 3 6209 3088
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2. HAZARDS IDENTIFICATION**Risk advice to man and the environment**

May cause sensitization by skin contact.

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

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

Emulsion, oil in water (EW)

S-Bioallethrin/Permethrin/PBO 1.4:103:98 g/l

Hazardous components

Chemical Name	CAS-No. / EINECS-No.	Symbol(s)	R-phrased(s)
S-Bioallethrin	28434-00-6 249-013-5	Xn, N	R20/22, R50/53
Permethrin	52645-53-1 258-067-9	Xn, N	R20/22, R43, R50/53
Piperonyl butoxide	51-03-6 200-076-7	N	R50/53



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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.

Inhalation

Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

Skin contact

In case of skin contact, immediately wash with plenty of water and soap for at least 15 minutes.
After skin contact: Apply Vitamin E cream or a simple body milk. If symptoms persist, call a physician.

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. Get medical attention if irritation develops and persists.

Ingestion

Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

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, Tachycardia, Hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Dizziness, Blurred vision, Headache, Anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration

Risks

This product contains a pyrethroid.
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:
Initial treatment: symptomatic.
Monitoring of respiratory and cardiac functions.
In case of ingestion perform gastric lavage, then administer charcoal (carbo medicalis) and sodium sulfate.
Anti-convulsive therapy: Diazepam i.v. is the remedy of choice; barbiturates, e.g. phenobarbital and calcium gluconate, may also be used.
In case of shortness of breath, give oxygen.
Contraindication: derivatives of adrenaline.
Contraindication: atropine.
Spontaneous recovery.
There is no specific antidote.



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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, 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.

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

No special precautions required.

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.

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Suitable materials
HDPE (high density polyethylene)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
S-Bioallethrin	28434-00-6	3,8 mg/m ³		OES BCS*
Permethrin	52645-53-1	10 mg/m ³		OES BCS*
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/Issohexane 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** 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**
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

**AQUA RESIGEN**Version 1 / EU
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Form	emulsion
Colour	white to beige
Odour	weak, aromatic

Safety data

pH	4 - 7 at 1 % (23 °C)
pH	2,5 - 6 at 100 % (23 °C)
Density	approx. 1,00 g/cm ³ at 20 °C
Water solubility	miscible
Viscosity, dynamic	<= 100 mPa.s at 20 °C Velocity gradient 7,5 /s

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) 2.058 mg/kg
Acute Dermal Toxicity	LD50 (rat) > 4.900 mg/kg
Skin Irritation	No skin irritation. (rabbit)
Eye Irritation	No eye irritation. (rabbit)
Sensitization	sensitizing (guinea pig) Information given is based on data on the components and the toxicology of similar products.

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)**

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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 (Oncorhynchus mykiss)) 0,134 mg/l Exposure time: 96 h
Toxicity to daphnia	EC50 (Daphnia) 0,016 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient S-bioallethrin.
Toxicity to daphnia	EC50 (Water flea (Daphnia magna)) 0,00017 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient permethrin.
Toxicity to daphnia	EC50 (Water flea (Daphnia magna)) 0,51 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient piperonyl butoxide.
Toxicity to algae	EC50 (Selenastrum capricornutum) 3,9 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient S-bioallethrin.
Toxicity to algae	EC50 (Selenastrum capricornutum) 0,497 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient permethrin.
Toxicity to algae	EC50 (Algae) > 9,1 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient piperonyl butoxide.

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

Triple rinse containers.
Do not re-use empty containers.
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

**AQUA RESIGEN**Version 1 / EU
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UN-Number	3082
Labels	9
Packaging group	III
Hazard no.	90
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PERMETHRIN 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. (PERMETHRIN SOLUTION)

IATA

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

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

Classification:

Hazard warning labelling compulsory

Hazardous components which must be listed on the label:

- S-Bioallethrin
- Permethrin
- Piperonyl butoxide

Symbol(s)

Xi	Irritant
N	Dangerous for the environment

R-phrases(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-phrases(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.



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Further information
WHO-classification: III (Slightly hazardous)

16. OTHER INFORMATION

Further information

Text of R-phrases mentioned in Section 3

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|--------|--|
| R20/22 | Harmful by inhalation and if swallowed. |
| R43 | May cause sensitization by skin contact. |
| 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 information given in this Data Sheet has been included in accordance with the guidelines established by Regulation (EC) 1907/2006. 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.