



## Bayer Environmental Science

**PRO CONTROL CIK**

Version 2  
Revision Date 16.07.2003

GB  
102000002524

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

Trade name : PRO CONTROL CIK  
 Product code : AE F032639 05 AE01 A1  
 Product code : D341  
 Specification : 21321  
 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 : 0800-220876 ( UK only )  
 number : +44(0)1223-870312

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

Aerosol dispenser (AE), contains:  
S-Bioallethrin/Permethrin 0.10:0.50 % w/w

**Hazardous components**

| Chemical Name      | CAS-No.    | Symbol(s): | R-phrases)       | Concentration [%] |
|--------------------|------------|------------|------------------|-------------------|
| S-Bioallethrin     | 28434-00-6 | Xn, N      | R20/22<br>R50/53 | 0.10              |
| Permethrin         | 52645-53-1 | Xn         | R22              | 0.50              |
| Butane             | 106-97-8   | F+         | R12              | > 5.00 - < 25.00  |
| Odourless Kerosine | 64742-47-8 | Xn         | R65<br>R66       | > 50.00           |

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



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Pressurised container, heating will cause pressure rise with a risk of bursting.  
Extremely flammable liquefied gas.  
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Harmful: may cause lung damage if swallowed.  
Repeated exposure may cause skin dryness or cracking.

**4. FIRST AID MEASURES**

- General advice : Remove contaminated, soaked clothing immediately and dispose of safely.
- Inhalation : If abnormal over-exposure and inhalation of the aerosol occurs, the following advice is applicable. 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 : Ingestion of the aerosol spray is unlikely. However, if liquid contents are ingested, the following advice is applicable. Do not induce vomiting. Keep at rest. Obtain medical attention.

**Notes to physician**

- Symptoms : Local:, After skin contact: paresthesia (local), May cause skin and eye irritation., Inhalation may provoke the following symptoms:, irritation
- Symptoms : Systemic:, excitement, gastrointestinal discomfort, tremor, Dizziness, headache, listlessness, nausea and vomiting, epigastric pain, muscular fasciculation of limbs, unconsciousness, convulsions and coma (very high doses).
- Risks : This product/preparation contains a pyrethroid. 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:  
Endotracheal intubation should be done and gastric lavage performed, followed by administration of charcoal.  
Monitoring of respiratory and cardiac functions  
ECG - monitoring (Electrocardiogram)  
Check for pulmonary oedema in event of inhalation.  
Keep airway clear, administer artificial respiration if necessary.  
Against convulsions: Give diazepam: for adults 5-10 mg



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intravenously as necessary until fully sedated; for children 2.5 mg i.v.  
There is no antidote.  
Contraindication: atropine  
Contraindication: derivatives of adrenaline

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : water spray  
alcohol-resistant foam  
dry powder  
carbon dioxide (CO2)
- Extinguishing media which must not be used for safety reasons : high volume water jet
- Specific hazards during fire fighting : The product is extremely flammable.  
Product is contained in a pressurised container which may explode on heating.  
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 : Consider the need for evacuation.  
Ventilate the spillage area.  
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 : The nature of this product, when contained in commercial packs, makes spillage unlikely. However, if significant amounts are spilled then the following advice is applicable.  
Take up with absorbent material (e.g. sand, earth or a proprietary absorbent material).  
Transfer collected material to heavy duty plastic drums and

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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 ventilation if necessary).

Advice on protection against fire and explosion : The product is extremely flammable. Vapours may form explosive mixture with air. Do not spray on a naked flame or any other incandescent material.

**Storage**

Requirements for storage areas and containers : Keep container tightly closed in a dry and 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.

**Components with workplace control parameters**

| Components | CAS-No.  | Control parameters             | Update | Basis    |
|------------|----------|--------------------------------|--------|----------|
| Butane     | 106-97-8 | 1,450 mg/m <sup>3</sup> (TWA)  | 2001   | EH40 OES |
|            |          | 1,810 mg/m <sup>3</sup> (STEL) | 2001   | EH40 OES |

Additional advice : Observe: Exposure Limits In Air, Gp1 1000mg/m<sup>3</sup>/200ppm.

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(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 : Personal protective equipment is not normally required when using the aerosol. However, if there is a risk of uncontrolled exposure to the contents, the following should be considered.  
Short term: filter apparatus, Filter A
- Hand protection : Personal protective equipment is not normally required when using the aerosol. However, if there is a risk of uncontrolled exposure to the contents, the following should be considered.  
Chemical resistant gloves  
PVC gloves  
nitrile gloves
- Eye protection : Personal protective equipment is not normally required when using the aerosol. However, if there is a risk of uncontrolled exposure to the contents, the following should be considered.  
goggles  
safety glasses
- Skin and body protection : Personal protective equipment is not normally required when using the aerosol. However, if there is a risk of uncontrolled exposure to the contents, the following should be considered.  
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.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

- Form : aerosol  
Colour : colourless to slightly yellow  
Odour : slight

**Safety data**

- Flash point : > 75 °C  
Method: closed cup  
Note: Information applies to the solvent.
- Flash point : ca. -104 °C  
Method: closed cup  
Note: The value mentioned relates to the aerosol propellant.



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|---|--|
| Flash point                             | : ca. 65 °C<br>Method: closed cup<br>Note: Information based on main aerosol concentrate.                  |
| Ignition temperature                    | : 230 °C<br>Note: The data relate to the solvent   |
| Ignition temperature                    | : 430 °C<br>Note: The value mentioned relates to the aerosol propellant.                                   |
| Upper explosion limit                   | : 13.0 %(V)<br>Note: The data relate to the solvent  |
| Upper explosion limit                   | : 8.4 %(V)<br>Note: The value mentioned relates to the aerosol propellant.                                 |
| Lower explosion limit                   | : 0.6 %(V)<br>Note: The data relate to the solvent   |
| Lower explosion limit                   | : 1.8 %(V)<br>Note: The value mentioned relates to the aerosol propellant.                                 |
| Vapour pressure                         | : 0.67 hPa at 20 °C<br>Note: The data relate to the solvent  |
| Vapour pressure                         | : 2,140 - 8,530 hPa at 21.1 °C<br>Note: The value mentioned relates to the aerosol propellant.             |
| Relative vapour density                 | : 4.5<br>Note: The data relate to the solvent  |
| Relative vapour density                 | : 2.1<br>Note: The value mentioned relates to the aerosol propellant.                                      |
| Density                                 | : ca. 0.69 g/cm <sup>3</sup> at 20 °C  |
| Water solubility                        | : Note: immiscible   |
| Partition coefficient (n-octanol/water) | : log Pow: 4.68<br>at: 25 °C<br>Note: The value mentioned relates to the active ingredient S-bioallethrin. |
| Partition coefficient (n-octanol/water) | : log Pow: 5.95<br>Note: The value mentioned relates to the active ingredient permethrin.                  |
| Other information                       | : The product is extremely flammable.  |

**10. STABILITY AND REACTIVITY**

|                     |  |
|---------------------|--|
| Conditions to avoid | : Note: Extremes of temperature and direct sunlight. |
| Materials to avoid  | : None   |

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- Thermal decomposition : Note: Fire or intense heat may cause violent rupture of packages.
- Hazardous reactions : No hazardous reactions when stored and handled according to prescribed instructions.  
Note: Stable under recommended storage conditions.

**11. TOXICOLOGICAL INFORMATION**

- Acute oral toxicity : LD50 (rat) > 2,000 mg/kg  
Test substance: Information given is based on data on the components and the toxicology of similar products
- Acute inhalation toxicity : LC50 (rat) 214 mg/l  
Exposure time: 4 h
- Acute dermal toxicity : LD50 (rat) > 2,000 mg/kg  
Test substance: Information given is based on data on the components and the toxicology of similar products
- Skin irritation : rabbit  
Result: No skin irritation  
Test substance: Information given is based on data on the components and the toxicology of similar products
- Eye irritation : rabbit  
Result: No eye irritation  
Test substance: Information given is based on data on the components and the toxicology of similar products
- Sensitization : guinea pig  
Result: non-sensitizing  
Test substance: 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).  
When inhaled in larger quantities, the solvent vapours cause a narcotic effect.

**12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

- Toxicity to fish : LC50: 0.053 mg/l  
Fathead minnow  
Exposure time: 96 h  
Test substance: The value mentioned relates to the active ingredient S-bioallethrin.
- Toxicity to fish : LC50: 0.0332 mg/l



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|-----------------------------|---|---|
|                             |   | Lepomis macrochirus (Bluegill sunfish)<br>Exposure time: 96 h<br>Test substance: The value mentioned relates to the active ingredient S-bioallethrin.       |
| Toxicity to fish            | : | LC50: 0.0105 mg/l<br>Rainbow trout<br>Exposure time: 96 h<br>Test substance: The value mentioned relates to the active ingredient S-bioallethrin.           |
| Toxicity to fish            | : | LC50: 0.0076 mg/l<br>Guppy (Poecilia reticulata)<br>Exposure time: 96 h<br>Test substance: The value mentioned relates to the active ingredient permethrin. |
| Toxicity to daphnia         | : | EC50: 0.016 mg/l<br>Daphnia<br>Exposure time: 96 h<br>Test substance: The value mentioned relates to the active ingredient S-bioallethrin.                  |
| Toxicity to daphnia         | : | EC50: 0.00017 mg/l<br>Water flea (Daphnia magna)<br>Exposure time: 48 h<br>Test substance: The value mentioned relates to the active ingredient permethrin. |
| Toxicity to algae           | : | EC50: 3.9 mg/l<br>Selenastrum capricornutum<br>Exposure time: 72 h<br>Test substance: The value mentioned relates to the active ingredient S-bioallethrin.  |
| Toxicity to algae           | : | EC50: 0.5 mg/l<br>Algae<br>Exposure time: 72 h<br>Test substance: The value mentioned relates to the active ingredient permethrin.                          |
| Toxicity to other organisms | : | LD50: 2,030 mg/kg<br>Bobwhite quail<br>Test substance: The value mentioned relates to the active ingredient S-bioallethrin.                                 |
| Toxicity to other organisms | : | LD50: > 13,500 mg/kg<br>Japanese quail<br>Test substance: The value mentioned relates to the active ingredient permethrin.                                  |

**13. DISPOSAL CONSIDERATIONS**

Product : Disposal of any liquid product that is no longer contained in the

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aerosol container would usually be by incineration in an appropriately licensed commercial incinerator.  
Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging : Do not pierce or burn, even after usage.  
Ensure aerosol container is empty before disposal.  
Packaging that cannot be cleaned should be disposed of as product waste.

Waste key for the unused product : 020108 agrochemical waste containing dangerous substances

**14. TRANSPORT INFORMATION**

|                     |  |   |
|---------------------|--|---|
| <b>ADR/RID/ADNR</b> | : UN-No<br>Labels<br>Packaging group<br>Hazard no.<br>Description of the goods | <b>1950</b><br>2.1<br><br><br>UN 1950 AEROSOLS<br>( BUTANE/LIQUID PETROLEUM GAS ) |
| <b>IMDG</b>         | : UN-No<br>Class<br>Packaging group<br>EmS<br>Description of the goods         | <b>1950</b><br>2.1<br><br>2-13<br>AEROSOLS<br>( BUTANE/LIQUID PETROLEUM GAS )     |
| <b>IATA</b>         | : UN-No<br>Class<br>Packaging group<br>Description of the goods                | <b>1950</b><br>2.1<br><br>Aerosols, flammable<br>( BUTANE/LIQUID PETROLEUM GAS )  |
| <b>CDG CPL</b>      | : UN-No<br>Class<br>Proper shipping name                                       | <b>1950</b><br>2.1<br>AEROSOLS (BUTANE/LIQUID PETROLEUM GAS)                      |

**15. REGULATORY INFORMATION**

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

Hazardous components which must be listed on the label:

- S-Bioallethrin
- Permethrin
- Odourless Kerosine



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|             |                                   |  |
|-------------|-----------------------------------|--|
| Symbol(s):  | : F+<br>Xn                        | Extremely flammable<br>Harmful   |
| R-phrase(s) | : R12<br>R52/53<br><br>R65<br>R66 | Extremely flammable.<br>Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.<br><br>Harmful: may cause lung damage if swallowed.<br>Repeated exposure may cause skin dryness or cracking. |
| S-phrase(s) | : S62                             | 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:

|        |  |
|--------|--|
| R12    | Extremely flammable.   |
| R20/22 | Harmful by inhalation and if swallowed.  |
| R22    | Harmful 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.

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.

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