

## Safety Data Sheet

Revision date: 12-December-2004

replaces all previous editions

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### FUMITE SMOKE GENERATOR

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#### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY OR UNDERTAKING

##### Identification of the substance or preparation

Tradename PERMETHRIN SMOKE GENERATOR

##### Company identification

Company Octavius Hunt Ltd  
Redfield, BRISTOL, BS5 9NQ, UK  
Phone +44 (0) 117 955 5305  
Fax +44 (0) 117 955 7875  
Website www.octavius-hunt.co.uk  
Emergency Phone + 44 (0) 7885 561137 (24h)

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#### 2. COMPOSITION / INFORMATION ON INGREDIENTS

##### Chemical characteristic

Formulation type Smoke generator  
Use Pyrethroid insecticide  
Permethrin EC-No.: 258-067-9  
Potassium chlorate EC-No.: 223-289-7

##### Hazardous Components

CAS No.	Hazardous ingredients	Concentration	Hazard symbols	Risk phrases (R)
52645-53-1	Permethrin (Classification according to Directive 67/548/EEC)	13.5% w/w	Xn	22
3811-04-9	Potassium chlorate (Classification according to Directive 67/548/EEC)	10 -20% w/w	O, Xn	9, 20/22

Information to exposure limit values - see section 8.

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### 3. HAZARDS IDENTIFICATION

Harmful if swallowed. Irritating to eyes and respiratory system. Toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment. Ignites readily. Product burns without a flame to give a dense white harmful smoke.

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### 4. FIRST AID MEASURES

**General advice:** Remove contaminated, soaked clothing immediately and dispose of safely.

**Eye contact:** Immediately irrigate with clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

**Skin contact:** Take off immediately all contaminated clothing. Wash skin immediately with water, followed by soap and water. Such action is essential to minimise contact with skin. Contaminated clothing should be laundered before re-issue. Apply Vitamin E cream or simple toilet milks. When symptoms persist or in all cases of doubt seek medical advice.

**Inhalation:** Remove patient from exposure, keep warm and at rest. Obtain medical attention as a precaution.

**Ingestion:** If swallowed wash out mouth with water, seek medical advice immediately and show the container, label or this Data Sheet, if possible. Do not induce vomiting.

#### Medical advice

**Symptoms:** Local: After skin contact: paresthesia (local). May cause skin and eye irritation. Inhalation may provoke the following symptoms: irritation, cough.

**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.

**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 5-10mg intravenously as necessary until fully sedated; for children 2.5mg i.v.

There is no antidote.

Contraindication: atropine

Contraindication: derivatives of adrenaline.

Recovery: Spontaneous.

## 5. FIRE FIGHTING MEASURES

Highly flammable. Ignites readily. Oxidising agent; may assist combustion.

Keep fire exposed containers cool by spraying with water.

**Extinguishing media:** For small fires, use foam, carbon dioxide or dry powder extinguishant. For large fires, use foam or water-fog; avoid use of water jet. Contain run-off water with, for example, temporary earth barriers.

**Protective Equipment:** A self-contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Ensure suitable personal protection during removal of spillages. This means wearing a facemask that gives protection against toxic dusts, eye protection, chemically resistant gloves (e.g. 0.6 mm nitrile), boots and coveralls. See also Section 8.

**Clean up methods:** Cover spillage with moist sand or soil. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

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## 7. HANDLING AND STORAGE

### Handling

Read the label before use.

Do not breathe smoke. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

### Storage

Keep in original containers, tightly closed, out of reach of children. Keep away from food, drink and animal feeding stuffs. Protect from frost.

**Storage Life:** Physically and chemically stable for at least 2 years when stored in the original unopened sales container at ambient temperatures.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Controls

Occupational exposure limits; Hazardous ingredients; Not applicable to field use  
Permethrin MANUFACTURERS Standard, 8 hr TWA, 5 mg/m<sup>3</sup>.

Not applicable to field use.

### Personal Protection

When using this product refer to the label for details. In all other cases, use the following Personal Protective Equipment:

**Respiratory protection:** Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely. Respiratory protective equipment should conform to the appropriate EN standard.

**Eye protection:** Wear suitable eye/face protection conforming to EN 166.

**Hand protection:** Wear suitable gloves conforming to EN 374.

**Body protection:** Wear suitable protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Colour:</b>	Off-white.
<b>Physical State:</b>	Powder in polypropylene container.
<b>Odour:</b>	Characteristic
<b>Melting Point:</b>	Not applicable.
<b>Boiling point:</b>	Not applicable.
<b>Flash-Point:</b>	Does not flash.
<b>Autoignition temperature</b>	Not available.
<b>Minimum Ignition temp.</b>	>130 °C
<b>Minimum Ignition:</b>	Not available
<b>Oxidizing properties:</b>	Oxidising agent; may assist combustion.
<b>Energy Explosive properties</b>	Not applicable
<b>Vapour pressure:</b>	Not available.
<b>Solubility:</b>	Partly soluble in/with water.
<b>pH-value (quant.):</b>	Not available.
<b>Partition coeff. (n-octanol/water):</b>	Log Pow: 5.95
<b>Density:</b>	Not available.

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## 10. STABILITY AND REACTIVITY

Hazardous decomposition products: Combustion or thermal decomposition will evolve harmful and irritant vapours.

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## 11. TOXICOLOGICAL INFORMATION

### Acute Oral Toxicity

LD50 (rat) ca. 2000 mg/kg

Test substance: Information given is based on data on the components and the toxicology of similar products.

### Acute Inhalation Toxicity

LC50 (rat) > 4.2 mg/l Exposure time : 4h

Remarks: Irritating to respiratory system

### Acute Dermal Toxicity

LD50 (rat) >2000 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

### Eye Irritation

Rabbit

Result: Irritating to eyes

### 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).

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## 12. ECOLOGICAL INFORMATION

### ECOTOXICITY

Toxicity to fish	:	LC50: 0.0076 mg/l Guppy ( <i>Poecilia reticulata</i> ) Exposure time: 96h Test substance: The value mentioned relates to the active ingredient Permethrin.
Toxicity to daphnia	:	EC50: 0.00017 mg/l Water flea ( <i>Daphnia magna</i> ) Exposure time: 46h Test substance: The value mentioned relates to the active ingredient Permethrin.
Toxicity to algae	:	EC50: 0.5 mg/l Algae Exposure time: 72h Test substance: The value mentioned relates to the active ingredient Permethrin.
Toxicity to other organisms	:	LD50: >13,500 mg/kg Japanese quail Test substance: The value mentioned relates to the active ingredient Permethrin.

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## 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 land filled or incinerated, when in compliance with local regulations.

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

**Contaminated Packaging:** packaging that cannot be cleaned should be disposed of as product waste.

Empty containers can be land filled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

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## 14. TRANSPORT INFORMATION

<b>Rail / Road (RID / ADR)</b>	Class	UN	Packaging	Kemmler Index	
		Number	Group		
Proper Shipping Name	9	3077	III	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (PERMETHRIN MIXTURE).	
<b>Sea (IMDG-Code)</b>	Class	UN	Packaging	EMS	MFAG
		Number	Group		
Proper Shipping Name	9	3077	III	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (contains Permethrin 13.5%)	
Marine pollutant	Yes				
<b>Air (ICAO / IATA)</b>	Class	UN	Packaging		
		Number	Group		
Proper Shipping Name	9	3077	III	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (contains Permethrin 13.5%)	

## 15. REGULATORY INFORMATION

<b>Classifications / Hazard symbols</b>	<b>Xn</b> <b>N</b>	<b>HARMFUL</b> <b>DANGEROUS FOR THE ENVIRONMENT</b>
<b>Risk phrases (R)</b>	22 36/37 51/53	Harmful if swallowed Irritating to eyes and respiratory system Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>Safety phrases (S)</b>	2 13 17 20/21 23 35 57	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Keep away from combustible material When using do not eat, drink or smoke. Do not breathe fumes. This material and its container must be disposed of in a safe way. Use appropriate containment to avoid environmental contamination.
<b>Special label</b>		To avoid risks to man and the environment, comply with the instructions for use.

## 16. OTHER INFORMATION

### Further information

Text of R phrases mentioned in Section 2:

R9 Explosive when mixed with combustible material

R20/22 Harmful by inhalation and if swallowed

R22 Harmful if swallowed

**The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.**

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