



## Bayer Environmental Science

**MINI SMOKE GENERATORS**

Version 1  
Revision Date 25.03.2003

GB  
102000002531

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

Trade name : MINI SMOKE GENERATORS  
 Product code : AE F032639 00 FU14 A1  
 Product code : F953  
 Specification : 21330  
 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 number : 0800-220876 ( UK only )  
 +44(0)1223-870312

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

Smoke generator (FU), contains:  
Permethrin 25/75 13.5% w/w

**Hazardous components**

Chemical Name	CAS-No.	Symbol(s):	R-phrases(s)	Concentration [%]
Permethrin	52645-53-1	Xn	R22	13.50
Potassium chlorate	3811-04-9	O, Xn	R 9 R20/22	> 5.00 - < 25.00
Magnesite	546-93-0			> 25.00 - < 50.00

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

Harmful if swallowed.  
Irritating to eyes and respiratory system.  
Ignites readily. Product burns without a flame to give a dense white harmful smoke.

**4. FIRST AID MEASURES**

Inhalation : Move the patient to fresh air and keep at rest. If symptoms



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persist, call a physician.

- Skin contact : Take off all contaminated clothing immediately. 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 : Do not induce vomiting. Wash out mouth with water. 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, 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 5-10 mg intravenously as necessary until fully sedated; for children 2.5 mg i.v.  
There is no antidote.  
Contraindication: atropine  
Contraindication: derivatives of adrenaline  
Recovery: Spontaneous.

## 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray jet  
carbon dioxide (CO<sub>2</sub>)  
dry powder  
foam



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- Extinguishing media which must not be used for safety reasons : high volume water jet
- Specific hazards during fire fighting : In case of fire the evolution of dangerous gases is possible. Contains potassium chlorate which is classified as an oxidising agent. This will assist combustion in a fire situation.
- 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 : Avoid dust formation.  
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.  
Sweep up or preferably vacuum up spillage using equipment fitted with high efficiency final filter.  
Transfer collected material to heavy duty plastic drums and keep safe for disposal.  
Clean contaminated floors and objects thoroughly, 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

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packs/containers; follow relevant manual handling advice.  
Avoid dust formation.  
Provide good ventilation of working area (local exhaust ventilation if necessary).

Advice on protection against fire and explosion : The product is combustible.  
Dust can form an explosive mixture with air.

**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 : Protect against heat and direct sunlight  
Protect against moisture.

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
Magnesite	546-93-0	10 mg/m3 (TWA)	2001	EH40 OES
		4 mg/m3 (TWA)	2001	EH40 OES

**Personal protective equipment**

Respiratory protection : Dust mask

Hand protection : Chemical resistant gloves  
PVC gloves  
nitrile gloves

Eye protection : Chemical resistant goggles must be worn.

Skin and body protection : 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.



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### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Form : Powder  
Colour : off-white  
Odour : characteristic

#### Safety data

Ignition temperature : > 130 °C

Partition coefficient (n-octanol/water) : log Pow: 5.95  
Note: The value mentioned relates to the active ingredient permethrin.

Other information : Combustible solid product.

### 10. STABILITY AND REACTIVITY

Conditions to avoid : Note: Extremes of temperature and direct sunlight.

Materials to avoid : None

Hazardous reactions : No hazardous reactions when stored and handled according to prescribed instructions.  
Note: Stable under normal conditions.

### 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 (rat) ca. 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) > 4.2 mg/l  
Exposure time: 4 h  
Remarks: Irritating to respiratory system.

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

Eye irritation : rabbit  
Result: Irritating to eyes.



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### 12. ECOLOGICAL INFORMATION

#### Ecotoxicity effects

- Toxicity to fish : LC50: 0.0076 mg/l  
Guppy (*Poecilia reticulata*)  
Exposure time: 96 h  
Test substance: The value mentioned relates to the active ingredient permethrin.
- Toxicity to daphnia : EC50: 0.00017 mg/l  
Water flea (*Daphnia magna*)  
Exposure time: 48 h  
Test substance: The value mentioned relates to the active ingredient permethrin.
- Toxicity to algae : EC50: 0.5 mg/l  
Algae  
Exposure time: 72 h  
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.

### 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 landfilled or incinerated, when in compliance with local regulations.  
Advice may be obtained from the 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 landfilled, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

### 14. TRANSPORT INFORMATION



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<b>ADR/RID</b>	: UN-No	<b>3077</b>
	Class	9
	Packaging group	III
	Hazard no.	90
	Description of the goods	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ( PERMETHRIN MIXTURE )
<b>ADNR</b>	: UN-No	<b>3077</b>
	Class	9
	Item	12
	Letter	c
	Description of the goods	3077 Environmentally hazardous substance, solid, n.o.s. ( PERMETHRIN MIXTURE )
<b>IMDG</b>	: UN-No	<b>3077</b>
	Class	9
	Packaging group	III
	EmS	NONE
	Marine pollutant	P
	Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ( PERMETHRIN MIXTURE )
<b>IATA</b>	: UN-No	<b>3077</b>
	Class	9
	Packaging group	III
	Description of the goods	Environmentally hazardous substance, solid, n.o.s. ( PERMETHRIN MIXTURE )
<b>CDG CPL</b>	: UN-No	<b>3077</b>
	Class	9
	Packaging group	III
	Hazard identification number	90
	Emergency action code	2X
	Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PERMETHRIN)

**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:

- Permethrin
- Potassium chlorate

Exceptional labelling of special preparations : Restricted to professional users.  
To avoid risks to man and the environment, comply with the instructions for use.



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Symbol(s):	: Xn	Harmful
R-phrase(s)	: R22 R36/37	Harmful if swallowed. Irritating to eyes and respiratory system.
S-phrase(s)	: S36	Wear suitable protective clothing.

## 16. OTHER INFORMATION

### Further information

Text of R phrases mentioned in Section 2:

R 9 Explosive when mixed with combustible material.  
R20/22 Harmful by inhalation and if swallowed.  
R22 Harmful if swallowed.

Smoke generators are ready to use products contained in a plastic or aluminium container.

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.