



Bayer Environmental Science

MINI SMOKE GENERATORS

Version 2
Revision Date 08.07.2003

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



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5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : water spray jet
carbon dioxide (CO₂)
dry powder
foam
- 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.

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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. 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/m ³ (TWA)	2001	EH40 OES
		4 mg/m ³ (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.



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- 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.

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



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	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).

12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish	: LC50: 0.0076 mg/l Guppy (<i>Poecilia reticulata</i>) 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 (<i>Daphnia magna</i>) 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 after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

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

14. TRANSPORT INFORMATION

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

Further information : WHO-classification: III (Slightly hazardous)



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Symbol(s):	: Xn N	Harmful Dangerous for the environment
R-phrase(s)	: R22 R36/37 R51/53	Harmful if swallowed. Irritating to eyes and respiratory system. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S35 S57	This material and its container must be disposed of in a safe way. Use appropriate containment to avoid environmental contamination.

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.