

# Safety Data Sheet

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**REVISION (see box 16)**
**Issue : 04 25 : 04 : 2005**

<b>1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY</b>	
<b>PRODUCT NAME</b>	<b>PYRETHRUM FOGGING FLUID</b>
<b>DESCRIPTION</b>	A clear, pale yellow liquid with a mineral-oil type odour. For the control of flying insects by cold or thermal fogging.
<b>COMPANY</b>	Rentokil Initial UK Ltd, Pest Control, Felcourt, East Grinstead, West Sussex. RH19 2JY. United Kingdom. Telephone: +44 (0)1342 833022 Facsimile: +44 (0)1342 326229

<b>2 HAZARD IDENTIFICATION</b>	
<b>CLASSIFICATION AND DANGER SYMBOL (SUPPLY – USE) : IN COMPLIANCE WITH EC DIRECTIVE 1999/45.</b>	
<b>Dangerous for the Environment</b>	R52,53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>ADVERSE PHYSICAL, CHEMICAL, SIGNIFICANT HUMAN HEALTH AND ENVIRONMENTAL EFFECTS (SEE ALSO BOX 11):</b>	
No significant adverse physical or chemical effects expected.	
In the event of ingestion, aspiration into the lungs may result in chemically induced pneumonitis. May cause eye irritation.	
Adverse effects on the environment are unlikely, provided that the product is used as intended.	

<b>3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)</b>		
<b>% w/w</b>	<b>COMMON*/CHEMICAL NAME, ELINCS/EINECS &amp; CAS No. OF INGREDIENTS</b>	<b>EC 1999/45 CLASSIFICATION</b>
0.6	Pyrethrum* EINECS : 232-319-8 CAS : 8003-34-7	X <sub>n</sub> : R20/21/22 : R65 : R52
≤1.0	Piperonyl butoxide* / 2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether EINECS : 200-076-7 CAS : 51-03-6	X <sub>n</sub> : R22 X <sub>i</sub> : R37/38 N : R50,53
>50.0 ≤100.0	Mineral oil* EINECS : 232-455-8 CAS : 8042-47-5	Not classified.

**PYRETHRUM FOGGING FLUID**

<b>4 FIRST-AID MEASURES (SEE ALSO "ADVERSE EFFECTS" IN BOX 2)</b>			
<b>INHALATION</b>	Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.		
<b>EYE CONTACT</b>	Rinse affected eye with clean running water, or eyewash solution, for at least 15 minutes holding eyelids well apart. Rinse entire surface and do not allow run-off to contaminate unaffected eye. Seek medical attention.		
<b>SKIN CONTACT</b>	Remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice.		
<b>INGESTION (SWALLOWING)</b>	Do NOT induce vomiting. If unconscious place in the recovery position and apply supportive measures if necessary. If conscious give patient up to ½ litre or 1 pint of water to drink. Seek medical attention.		
<b>EMERGENCY EQUIPMENT SUGGESTED</b>	Appropriate first-aid equipment should be provided. For the UK this should be in accordance with the Health & Safety (First-Aid) Regulations 1981. See also the Approved Code of Practice "First-aid at Work".		
<b>NOTE TO DOCTOR</b>	Further information on all Rentokil initial formulations is lodged with the National Poisons Information Service in the UK. Telephone +44 (0) 870 600 6266 - 24 hours.		
<b>5 FIRE FIGHTING MEASURES</b>			
<b>FIRE EXTINGUISHER TYPE</b>	Use foam, dry powder, carbon dioxide, sand or earth for small fires. Use foam or fog for large fires. DO NOT USE WATER JETS.		
<b>SPECIAL FIRE-FIGHTING PROCEDURES</b>	Wear suitable personal protective equipment and self-contained breathing apparatus.		
<b>SPECIAL EXPOSURE HAZARDS</b>	Combustion of the mineral oil in this product may produce carbon dioxide, carbon monoxide, water, particulate matter, polycyclic aromatic hydrocarbons, unburnt hydrocarbons, unidentified organic and inorganic compounds and nitrogen oxides.		
<b>6 ACCIDENTAL RELEASE MEASURES</b>			
<b>PERSONAL PRECAUTIONS (See also box 8)</b>	Wear suitable personal protective equipment.		
<b>ENVIRONMENTAL PRECAUTIONS</b>	DO NOT contaminate watercourses or ground.		
<b>CLEAN-UP PROCEDURE (See also box 13)</b>	Absorb spill with an inert material such as sand, earth or sawdust. Transfer to a suitable container for subsequent disposal.		
<b>7 HANDLING AND STORAGE (SEE ALSO BOX 8)</b>			
<b>HANDLING</b>	Do not breathe fog. In case of insufficient ventilation wear suitable respiratory equipment. Vacate area during treatment. Do not re-enter treated area for 24 hours or until dry.		
<b>STORAGE</b>	Store in original container in a cool, dry, ventilated place out of the reach of children and away from food, drink and animal feeding stuffs.		
<b>8 EXPOSURE CONTROLS/PERSONAL PROTECTION</b>			
<b>EXPOSURE STANDARD - DIRECTIVE EC/98/24 (1<sup>ST</sup> IOELV DIRECTIVE)</b>	WEL for pyrethrum is 5 mg/m <sup>3</sup> long-term exposure (8 hour Time Weighted Average) and 10 mg/m <sup>3</sup> short-term exposure (15 minute reference period). Pyrethrum is referred to as pyrethrins (ISO) in Directive EC/98/24 (1 <sup>ST</sup> IOELV Directive).		
<b>ENGINEERING CONTROLS</b>	Where prevention of exposure is not reasonably practicable, adequate control of exposure should be achieved by engineering controls rather than the provision of personal protective equipment and clothing. More specific details cannot be given without carrying out a full risk assessment for each and every use scenario. Suitable and approved personal protective equipment and clothing may include the following item(s):		
<b>EYE PROTECTION</b>	Suitable eye protection such as full face respirator.		
<b>HAND PROTECTION</b>	Suitable hand protection such as synthetic rubber/PVC gloves.		
<b>SKIN PROTECTION</b>	Suitable skin protection such as coveralls.		
<b>BREATHING PROTECTION</b>	Do not breathe fog. Otherwise wear suitable respiratory protective equipment such as a full-face respirator.		
<b>ENVIRONMENTAL EXPOSURE CONTROLS</b>	Product should be used in accordance with instructions given.		
<b>9 PHYSICAL AND CHEMICAL PROPERTIES</b>			
<b>APPEARANCE AND ODOUR</b>	A clear, pale yellow liquid with a mineral-oil type odour.		
<b>pH</b>	Not applicable.	<b>SOLUBILITY IN WATER</b>	Immiscible.
<b>SPECIFIC GRAVITY</b>	0.9 at 20°C	<b>SOLUBILITY IN FAT</b>	Miscible.
<b>FLASH POINT</b>	132°C (Closed Cup)	<b>EXPLOSIVE PROPERTIES</b>	None known.
<b>FLAMMABILITY</b>	Non-flammable.	<b>COMBUSTIBILITY</b>	Not determined.
<b>AUTOFLAMMABILITY</b>	Not determined.	<b>OXIDISING PROPERTIES</b>	Not determined.
<b>BOILING POINT/RANGE</b>	Not determined.	<b>MELTING POINT/RANGE</b>	Not applicable.
<b>VAPOUR DENSITY</b>	Not determined.	<b>EVAPORATION RATE</b>	Not determined.
<b>VAPOUR PRESSURE</b>	Not determined.	<b>PARTITION COEFFICIENT</b>	Not applicable.
<b>VISCOSITY</b>	Not determined.	<b>OTHER DATA</b>	None known.

## PYRETHRUM FOGGING FLUID

## 10 STABILITY AND REACTIVITY

<b>CONDITIONS TO AVOID</b>	Avoid extremes of temperature, e.g. below 0°C and above 40°C.
<b>MATERIALS TO AVOID</b>	Avoid contact with strong oxidising agents.
<b>HAZARDOUS BREAKDOWN PRODUCTS</b>	Combustion of the mineral oil in this product may produce carbon dioxide, carbon monoxide, water, particulate matter, polycyclic aromatic hydrocarbons, unburnt hydrocarbons, unidentified organic and inorganic compounds and nitrogen oxides.

## 11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

<b>ACUTE TOXICITY</b>	<b>ORAL</b>	For pyrethrum: LD <sub>50</sub> (rats) (male): 2370 mg/kg; (female): 1030 mg/kg. In the event of ingestion, aspiration into the lungs may result in chemically induced pneumonitis.
	<b>INHALATION</b>	For pyrethrum: LC <sub>50</sub> (4h): (rats) 3.4 mg/L.
	<b>DERMAL</b>	For pyrethrum: Acute percutaneous LD <sub>50</sub> (rats): > 1500 mg/kg
<b>CORROSIVITY/ IRRITATION</b>	<b>SKIN</b>	Skin contact under conditions of poor hygiene and over prolonged periods can lead to defatting of the skin, dermatitis, erythema, oil acne and oil folliculitis.
	<b>EYES</b>	May cause eye irritation.
	<b>RESPIRATORY TRACT</b>	Contains no known respiratory sensitisers.
<b>SENSITISATION</b>	<b>SKIN</b>	Contains no known skin sensitisers.
	<b>RESPIRATORY</b>	Contains no known respiratory sensitisers.
<b>REPEAT-DOSE TOXICITY</b>		Prolonged and repeated contact with the oil carrier can be detrimental to health.
<b>MUTAGENICITY</b>		Product does not contain any components known to have a mutagenic effect.
<b>CARCINOGENICITY</b>		Product does not contain any components known to have a carcinogenic effect.
<b>REPRODUCTIVE TOXICITY</b>	<b>FERTILITY DEVELOPMENT</b>	Product does not contain any components known to have effects on fertility.
		Product does not contain any components known to be toxic to the reproductive system.
<b>OTHER INFORMATION</b>		No specific antidote known.

## 12 ECOLOGICAL INFORMATION

<b>GENERAL INFORMATION</b>	The full ecotoxicological profile of this product has not been evaluated. Do not contaminate the environment.
<b>ECOTOXICITY DATA</b>	For pyrethrum: Fish: LC <sub>50</sub> : 5.2 µg/L (Rainbow trout) Daphnia: LC <sub>50</sub> : 12 µg/L For piperonyl butoxide: Fish: LC <sub>50</sub> (96h): 5.37 mg/L ( <i>Lepomis macrochirus</i> ) Aquatic invertebrates: LC <sub>50</sub> (48h): 0.51 mg/L ( <i>Daphnia magna</i> ) Algae: EC <sub>50</sub> (72h): 2.09 mg/L ( <i>Selenastrum capricornutum</i> )
<b>MOBILITY (of appropriate constituents)</b>	For mineral oil: Will form a floating layer on the surface of water and its components will not evaporate or dissolve to any great extent.
<b>PERSISTENCE AND DEGRADABILITY (of appropriate constituents)</b>	For mineral oil: Larger volumes may penetrate into anaerobic soil layers in which the product will persist and may reach the water table on which it will form a floating layer.
<b>BIOACCUMULATIVE POTENTIAL (of appropriate constituents)</b>	For mineral oil: Larger volumes may penetrate into anaerobic soil layers in which the product will persist and may reach the water table on which it will form a floating layer.
<b>ENVIRONMENTAL CONSIDERATIONS</b>	DO NOT contaminate watercourses or ground. This product is classified as harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Thus, every care must be taken to avoid its release and the subsequent contamination of the aquatic environment.
<b>OTHER ADVERSE EFFECTS</b>	None.

## 13 DISPOSAL CONSIDERATIONS

<b>DISPOSAL OF WASTE</b>	Under normal circumstances, waste will be disposed of by Rentokil Initial.
<b>DISPOSAL OF CONTAINERS:</b>	Under normal circumstances, empty containers will be disposed of by Rentokil Initial.
<b>CLASSIFICATION OF INGREDIENTS. (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC))</b>	<u>Hazard Code</u> : H14 - Ecotoxic <u>Components making the waste hazardous</u> <u>Concentrations (%)</u> : Piperonyl butoxide ≤1.0
<b>NOTE FOR DISPOSAL</b>	Disposal should be in accordance with local, State or National requirements. For further advice about disposal, in the UK, contact the local office of the Environment Agency (England and Wales) or Scottish Environment Protection Agency. Local rate from anywhere in the UK: +44 (0) 870 850 6506.

### PYRETHRUM FOGGING FLUID

**14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)**

<b>UN NO.</b>	Not Classified.	<b>TREMCARD REFERENCE NO.</b>	Not required.	<b>RIS CODE</b>
<b>TRANSPORT CATEGORY</b>	Not required.	<b>UK HAZCHEM EAC</b>	Not required.	PSP18
<b>ADR 2005 (INTERNATIONAL ROAD) PROPER SHIPPING NAME</b>	<b>CLASS</b> Not required.	<b>ADR HIN</b>	Not required.	<b>LABELS</b> Not required.
<b>LIMITED QUANTITY EXCEPTIONS</b>	Not required.			
<b>SPECIAL REQUIREMENTS</b>	Not required.	<b>PACKING GROUP</b>	Not required.	
<b>IMDG 2002 (SEA) PROPER SHIPPING NAME</b>	<b>CLASS</b> Not required.	<b>IMDG EMS</b>	Not required.	
<b>LIMITED QUANTITY EXCEPTIONS</b>	Not required.			
<b>SPECIAL REQUIREMENTS</b>	Not required.	<b>PACKING GROUP</b>	Not required.	
<b>NOTE FOR TRANSPORT</b>	Local, State or National requirements may apply to the carriage of this product.			

**15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2))**

<b>HAZARD SYMBOLS</b>	Not required.
<b>INDICATION OF DANGER</b>	Not required.
<b>RISK PHRASES</b>	R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
<b>SAFETY PHRASES</b>	S23: Do not breathe fog. S38: In case of insufficient ventilation wear suitable respiratory equipment. S60: This material and its container should be disposed of as hazardous waste. S61: Avoid release to the environment. Refer to special instructions/safety data sheet.
<b>LEGISLATION</b>	Labelling is according to UK regulations implementing the EC Directive 1999/45. Additional labelling requirements may be necessary in accordance with local legislation. Specific legislation used within this Safety Data Sheet is listed in the above boxes.

**16 OTHER INFORMATION and indication of revisions**

The information given on this Safety Data Sheet (SDS) **does not** constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002, in the UK.

**Before using any product, ensure that you read and understand its label.**

Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at all times.

<b>REVISIONS</b>	Changes have been made to the content of boxes 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 03.	
<b>RISK PHRASE TEXT (from box 3)</b>	R20/21/22	: Harmful by inhalation, in contact with skin and if swallowed.
	R22	: Harmful if swallowed.
	R37/38	: Irritating to respiratory system and skin.
	R50,53	: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R52	: Harmful to aquatic organisms.
	R65	: Harmful: May cause lung damage if swallowed.

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**Before using any product, ensure that you read and understand its label.**

The information contained in this safety data sheet is, to the best of our knowledge and belief, accurate and reliable at the time of publication. The information relates only to the specific material designated in this safety data sheet and may not be valid for such material if it is used in combination with any other material(s) or any other use than that specified herein. Rentokil Initial UK Ltd is not liable for the use of this product for any other purpose than that described in this safety data sheet. This does not affect your statutory rights. It is the user's responsibility to satisfy him/herself as to the suitability in completeness of such information for his/her own particular use.

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