

# Safety Data Sheet

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**REVISION (see box 16)**

Issue : 03 18 : 08 : 2009

## 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

<b>Product Name</b>	<b>INSECTROL MOTH KILLER</b>	<b>HSE 7744</b> <b>PCS 93986</b>
<b>Description</b>	A colourless liquid with a fragranced odour, dispensed from an aerosol. An insecticide for amateur use in the control of moths.	
<b>Company</b>	Rentokil Initial Supplies, Liverpool, L33 7SR. Product advice line: +44 (0)151 548 5050 Emergency line: +44 (0)1293 858 000 E-mail: <a href="mailto:sds@rentokil.com">sds@rentokil.com</a>	

## 2 HAZARD IDENTIFICATION

**Classification (Supply – Use) : In compliance with EC Directive 1999/45.**

<b>F+ Extremely Flammable</b>	R12	Extremely flammable.
<b>N Dangerous for the Environment</b>	R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Adverse Physical, Chemical, Significant Human Health and Environmental Effects (See also box 11):**

Product is extremely flammable, do not use near sources of ignition (e.g. naked flames). Contact with the liquid product may cause irritation, redness, cold burns, frost bite or corneal damage. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. May ultimately cause loss of consciousness.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16)

% w/w	Common*/Chemical Name, ELINCS/EINECS & CAS No. of Ingredients	EC 1999/45 Classification
0.018	Permethrin*/3-phenoxybenzyl (1RS, 3RS ; 1RS, 3RS)-3-(2,2-dichlorovinyl)-2,2-dimethyl cyclopropane carboxylate EINECS : 258-067-9 CAS : 52645-53-1	X <sub>n</sub> : R20/22 R43 N : R50,53
0.243	Tetramethrin*/3,4,5,6-tetrahydrophthalimidomethyl-(1RS)-cis, trans-chrysanthemate EINECS : 231-711-6 CAS : 7696-12-0	N : R50,53
> 1.0 ≤2.5	Piperonyl butoxide*/2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether EINECS : 200-076-7 CAS : 51-03-6	N : R50,53
>10.0 ≤25.0	Odourless kerosene*/distillates (petroleum), hydrotreated light; kerosene unspecified EINECS : 265-149-8 CAS : 64742-47-8	X <sub>n</sub> : R65 : R66
>25.0 ≤50.0	Aerosol propellant*/liquefied petroleum gas EINECS : 270-704-2 CAS : 68476-85-7	F+ : R12

**INSECTROL MOTH KILLER**

<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.

<b>5 FIRE FIGHTING MEASURES</b>	
<b>Fire Extinguisher Type</b>	Use carbon dioxide, foam, or dry powder extinguishers. Do NOT use a water jet.
<b>Special Fire-Fighting Procedures</b>	Wear suitable personal protective equipment.
<b>Special Exposure Hazards</b>	Polycyclic aromatic hydrocarbons, unburnt hydrocarbons, unidentified organic and inorganic compounds and oxides of nitrogen and carbon may be produced in the event of a fire. Large amounts of propane released in a fire may act as an asphyxiant.

<b>6 ACCIDENTAL RELEASE MEASURES</b>	
<b>Personal Precautions (See also box 8)</b>	Wear suitable personal protective equipment. Remove all sources of ignition. Ensure area is well ventilated.
<b>Environmental Precautions</b>	This product is classified as dangerous for the environment. Keep away from drains, surface and ground water, and soil.
<b>Clean-up Procedure (See also box 13)</b>	If the aerosol is damaged or pierced, allow the propellant to vent-off, if possible in a well-ventilated area, then place in a suitable container for subsequent disposal.

<b>7 HANDLING AND STORAGE (SEE ALSO BOX 8)</b>	
<b>Handling</b>	Avoid puncturing. Avoid contact with skin.
<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. Pressurised container: Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from sources of ignition - No smoking.

<b>8 EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
<b>Exposure Standard - Directive EC/98/24 (1<sup>st</sup> IOELV Directive)</b>	Workplace Exposure Limit (WEL) for aerosol propellant is 1750 mg/m <sup>3</sup> long-term exposure (8 hour Time Weighted Average) and 2180 mg/m <sup>3</sup> short-term exposure (15 minute reference period). Aerosol propellant is referred to as liquefied petroleum gas in Directive EC/98/24 (1 <sup>st</sup> IOELV Directive).
<b>Engineering Controls</b>	Where exposure may occur, engineering controls, rather than the provision of Personal Protective Equipment (PPE) should be employed. On completion of a risk assessment, the following PPE may be required:
<b>Eye Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Hand Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Skin Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Breathing Protection</b>	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
<b>Environmental Exposure Controls</b>	Use only in accordance with instructions given.

<b>9 PHYSICAL AND CHEMICAL PROPERTIES</b>			
<b>Appearance and Odour</b>	A colourless liquid with a fragranced odour, dispensed from an aerosol.		
<b>pH</b>	Not applicable.	<b>Solubility in Water</b>	Miscible.
<b>Specific Gravity</b>	0.773 at 20°C	<b>Solubility in Other Solvents</b>	Miscible.
<b>Flash Point</b>	-104°C (closed cup)	<b>Explosive Properties</b>	Pressurised container. May explode if exposed to direct sunlight or temperatures exceeding 50°C.
<b>Flammability</b>	Extremely flammable.	<b>Combustibility</b>	Combustible.
<b>Boiling Point/Range</b>	Starts at ca. -0.5°C	<b>Oxidising Properties</b>	None known.
<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 applicable.	<b>Other Data</b>	Discharge rate: 1.7 g/second at 20°C Net fill weight: 232g

## INSECTROL MOTH KILLER

## 10 STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	Avoid exposure to direct sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn even after use.
<b>Materials to avoid</b>	Do not spray on a naked flame, electrical equipment or any incandescent material.
<b>Hazardous Breakdown Products</b>	Polycyclic aromatic hydrocarbons, unburnt hydrocarbons, unidentified organic and inorganic compounds and oxides of nitrogen and carbon may be produced in the event of a fire. Large amounts of propane released in a fire may act as an asphyxiant.

## 11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

<b>Acute Toxicity</b>	Oral	For permethrin: LD <sub>50</sub> (rat) : 554 mg/kg For tetramethrin: LD <sub>50</sub> (rat) : >5000 mg/kg
	Inhalation	For permethrin: LC <sub>50</sub> (rat) (4hr) : > 4.638 mg/L For tetramethrin: LC <sub>50</sub> (rat) (4hr) : > 2.73 mg/L
	Dermal	For permethrin: LD <sub>50</sub> (rat) : >2000 mg/kg For tetramethrin: LD <sub>50</sub> (rat) : >2000 mg/kg
<b>Corrosivity/Irritation</b>	Skin	Contact with the liquid product may cause cold burns.
	Eyes	Contact with the liquid product may cause mild irritation or frost bite.
	Respiratory tract	Contact with the liquid product may cause irritation, redness, frost bite or corneal damage. No data available.
<b>Sensitisation</b>	Skin	Contains less than 1% skin sensitisers in the form of 2-methyl-3-(4-tert butylphenyl) propanal, amyl cinnamal, benzyl salicylate, citronellol, geraniol and limonene.
	Respiratory	Contains no known respiratory sensitisers.
<b>Repeat-Dose Toxicity</b>		No data available.
<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>	Fertility	Product does not contain any components known to have effects on fertility.
	Development	Product does not contain any components known to be toxic to the reproductive system.
<b>Other Information</b>		Contact with the liquid product may cause cold burns, frost bite or corneal damage. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. May ultimately cause loss of consciousness. For aerosol propellant: Prolonged exposure may affect the central nervous system.



## 12 ECOLOGICAL INFORMATION

<b>General Information</b>	This product is classified as toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. However, when used in accordance with instructions given, controlled release of this product is not expected to cause environmental contamination.								
<b>Ecotoxicity Data</b>	<table border="0"><tr><td>For permethrin:</td><td>For tetramethrin:</td></tr><tr><td>LC<sub>50</sub> (<i>Poecilia reticulata</i>) (96hr): 8.9 µg/L</td><td>LC<sub>50</sub>, (Rainbow trout) (96hr): 3.7 µg/L</td></tr><tr><td>EC<sub>50</sub> (<i>Daphnia magna</i>) (24hr): 0.020 mg/L</td><td>EC<sub>50</sub> (48h) (<i>Daphnia magna</i>): 110µg/L</td></tr><tr><td>EC<sub>50</sub> (<i>Scenedesmus subspicatus</i>) (72hr): &gt;0.022mg/L</td><td>EbC<sub>50</sub>, (Algae) (72hr): &gt;0.94 mg/L</td></tr></table>	For permethrin:	For tetramethrin:	LC <sub>50</sub> ( <i>Poecilia reticulata</i> ) (96hr): 8.9 µg/L	LC <sub>50</sub> , (Rainbow trout) (96hr): 3.7 µg/L	EC <sub>50</sub> ( <i>Daphnia magna</i> ) (24hr): 0.020 mg/L	EC <sub>50</sub> (48h) ( <i>Daphnia magna</i> ): 110µg/L	EC <sub>50</sub> ( <i>Scenedesmus subspicatus</i> ) (72hr): >0.022mg/L	EbC <sub>50</sub> , (Algae) (72hr): >0.94 mg/L
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<b>Mobility</b>	Permethrin and tetramethrin are strongly adsorbed in soil particles, with no risk of leaching for permethrin.								
<b>Persistence and Degradability</b>	For permethrin: DT <sub>50</sub> pH 4 at 25°C: >1 year (water). Tetramethrin is photodegradable but not readily biodegradable.								
<b>Bioaccumulative Potential</b>	For tetramethrin: Log Pow: 4.58.								
<b>Other Adverse Effects</b>	Hazardous to bees.								

## 13 DISPOSAL CONSIDERATIONS

<b>Disposal of Waste / Containers</b>	This product is dangerous for the environment. Do not discharge to sewers, drains or watercourses. This aerosol is for amateur use and can be disposed of as normal household waste. However, if used in a place of work, it must be disposed of as hazardous waste.								
<b>Classification</b> (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC))	<u>Hazard Code:</u> H3A(i)-Highly Flammable; H14-Ecotoxic								
<b>Note for Disposal</b>	<table border="0"><tr><td><u>Components making the waste hazardous</u></td><td><u>Concentrations (%):</u></td></tr><tr><td>Aerosol propellant</td><td>&gt;25.0 ≤50.0</td></tr><tr><td>Piperonyl butoxide</td><td>&gt;1.0 &lt;2.5</td></tr><tr><td>Permethrin</td><td>0.018</td></tr></table> <p>The best means of disposal of any product is through proper use according to the label. 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.</p>	<u>Components making the waste hazardous</u>	<u>Concentrations (%):</u>	Aerosol propellant	>25.0 ≤50.0	Piperonyl butoxide	>1.0 <2.5	Permethrin	0.018
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Aerosol propellant	>25.0 ≤50.0								
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<b>14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)</b>			
<b>UN No.</b>	UN1950		<b>RIS Code</b>
<b>Transport Category</b>	3	<b>UK Hazchem EAC</b>	Not applicable, aerosols are not allowed to be carried in tanks or in bulk
<b>ADR 2009 (International Road)</b>	<b>Class 2</b>	<b>ADR HIN</b>	Not applicable, aerosols are not allowed to be carried in tanks or in bulk.
<b>Proper Shipping Name</b>	AEROSOLS.		
<b>Limited Quantity Exemptions</b>	Individual aerosols should not exceed 1000ml and be carried in combination packages not exceeding 30kg. If carried in shrink-wrapped trays, the total gross mass of the package must not exceed 20kg.		
<b>Special Requirements</b>	Not required.		
	<b>Packing Group</b> Not required.		
<b>IMDG 2008 (Sea)</b>	<b>Class 2</b>	<b>IMDG EMS</b>	F-D, S-U
<b>Proper Shipping Name</b>	AEROSOLS.		
<b>Limited Quantity Exemptions</b>	Individual aerosols should not exceed 1000ml and be carried in combination packages not exceeding 30kg. If carried in shrink-wrapped trays, the total gross mass of the package must not exceed 20kg.		
<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.		

<b>15 REGULATORY INFORMATION (HEALTH AND SAFETY INFORMATION (SEE ALSO BOX 2))</b>	
<b>Safety Phrases</b>	S2 Keep out of the reach of children. S16 Keep away from sources of ignition - No smoking. S23 Do not breathe spray. S29 Do not empty into drains. S35 This material and its container must be disposed of in a safe way. S46 If swallowed, seek medical advice immediately and show this container or label.
<b>Additional Label Phrases</b>	To avoid risks to man and the environment, comply with the instructions for use.
<b>Legislation</b>	Labelling is in accordance with UK regulations implementing the EC Directive 1999/45. Additional labelling requirements may be necessary in accordance with other National legislation. Outside the UK, the registration of this product may be necessary before use and any additional local requirements must be observed at all times. The information given on this Safety Data Sheet (SDS) <b>does not</b> constitute an assessment in accordance with Control of Substances Hazardous to Health (COSHH) Regulations 2002, in the UK. Other National measures or guidance should be followed where appropriate.

<b>16 Other Information and indication of revisions</b>	
<b>Packaging Information</b>	A hand-held aerosol with a plastic actuator and a plastic cap, supplied as 6 x 250ml in an outer pack.
<b>Revisions</b>	Changes have been made to the content of boxes 01, 02, 03, 05, 06, 07, 08, 09, 11, 12, 13, 14, 15 & 16 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 02.
<b>Risk phrase text</b> (From box 3 - These refer to the ingredients only. See box 2 for the product risk phrases)	R12 : Extremely flammable. R20/22 : Harmful by inhalation and if swallowed. R43 : May cause sensitisation by skin contact. 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.

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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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Telephone: +44 (0) 1293 858000 Fax: +44 (0) 1403 214101