

Safety Data Sheet

NOTE: Access to a copy of this Safety Data Sheet (SDS) via our Website does not constitute the issue of a controlled Copy under EU legislation. To be issued with such a copy please contact Rentokil Initial using the details below. In order to confirm the latest version of the SDS for this product visit <http://www.rentokil-initial.com/sds/>

REVISION (see box 16)

Issue : 8

06 : 03 : 2013

SECTION 1 Identification of the substance/mixture and of the company/undertaking.

1.1 Product identifier	RADAR	UK-2010-0002, PCS 70005
1.2 Relevant identified uses of the substance or mixture and uses advised against	A unit for professional use, in the dispatch of mice via exposure to carbon dioxide. Carbon dioxide is released from a single-use aerosol canister, into the unit when the unit is triggered by the entry of a mouse. Carbon dioxide is a colourless, odourless gas.	
1.3 Details of the supplier of the safety data sheet	Rentokil Initial Supplies, Liverpool, L33 7SR, UK. Product advice line: +44 (0)151 548 5050 Emergency line: +44 (0)1342 833 022 E-mail: sds@rentokil.com	
National contact	Rentokil Initial Supplies, Liverpool, L33 7SR, UK. Product advice line: +44 (0)151 548 5050 Emergency line: +44 (0)1342 833 022 E-mail: sds@rentokil.com	
1.4 Emergency telephone number	0844 892 011 (for use by medical professionals only).	

SECTION 2 Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008.

Not applicable. See section 16.

Classification according to Directive 1999/45/EC (See section 16)

Not classified.

2.2 Label elements

Risk phrase(s) (R), in full / Hazard statement(s) (H), in full.

Not required.

Safety phrase(s) (S), in full / Precautionary Statement(s) (P), in full.

Safety phrases are not required.
Precautionary statements are not required.

2.3 Other hazards

Concentrations of 10% carbon dioxide or more can produce unconsciousness or death and may cause asphyxiation in high concentrations. Symptoms of asphyxiation may include loss of mobility and/or consciousness, and may come about so rapidly that victims may not be aware and unable to protect themselves. Avoid breathing gas. No other significant adverse effects expected under normal conditions of handling and use

SECTION 3 Composition/Information on Ingredients (See section 16)

RADAR

3.1 Substances							
% w/w	Common*/ Chemical Name (IUPAC)	CAS No.	EC No.	Index No.	REACH Registration No.	Directive 67/548/EEC classification	Regulation (EC) No 1272/2008 classification
99.9%	Carbon dioxide	124-38-9	204-696-9	-	N/A	Not classified.	: Press. Gas (Compressed) : H280

SECTION 4 First-Aid Measures

4.1 Description of first aid measure

Inhalation	Remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention.
Eye Contact	This route of exposure is not anticipated.
Skin Contact	This route of exposure is not anticipated.
Ingestion (Swallowing)	This route of exposure is not anticipated.

4.2 Most important symptoms and effects both acute and delayed

Emergency Equipment Suggested	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".
-------------------------------	--

4.3 Indication of any immediate medical attention and special treatment needed

Note To Doctor	Further information on all Rentokil Initial formulations is lodged with the local National Poisons Information Service.
Antidote	No known antidote.

SECTION 5 Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media	Choose extinguishing media suitable for the surroundings.
Unsuitable extinguishing media	Not specified.
5.2 Special hazards arising from the substance or mixture	Upon exposure to intense heat or flame, the aerosol canister will vent rapidly and or rupture violently. Move away from the unit and cool with water from a protected position. If possible, stop flow of carbon dioxide. Keep adjacent units cool by spraying with large amounts of water until the fire burns itself out.
5.3 Advice for fire fighters	Wear suitable personal protective equipment.

SECTION 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures	Wear suitable personal protective equipment.
6.2 Environmental precautions	None necessary.
6.3 Methods and material for containment and cleaning up	If units are intact and aerosol canisters are not punctured, pick-up and re-use. If canisters are punctured, ventilate the area and collect up canister for subsequent disposal.
6.4 Reference to other sections	Please also see sections 8 and 13 for further information.
Additional information	None.

SECTION 7 Handling and Storage

7.1 Precautions for safe handling	Protect aerosol canisters from physical damage. Avoid prolonged periods of low temperature below -30°C.
--	---

7.2 Conditions for safe storage, including any incompatibilities	Store in a cool, dry, ventilated place out of reach from children and away from food, drink and animal feeding stuff. Protect from sunlight and do not expose to temperatures exceeding 50°C
7.3 Specific end use(s)	Rodenticide.

SECTION 8 Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure standard - Directive 98/24/EC (1st IOELV Directive)	Workplace Exposure Limit (WEL) long-term exposure (8 hour Time Weighted Average)	For Carbon dioxide : 9150 mg . m-3 or 5000 ppm.
	Workplace Exposure Limit (WEL) short-term exposure (15 minute reference period)	For Carbon dioxide: 27400 mg . m-3 or 15000 ppm.
	Substance name used in Directive EC/98/24 (1st IOELV Directive)	Not applicable.

8.2 Exposure Controls

Appropriate engineering controls	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:
Individual Protection Measures	
Eye/face protection	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
Hand protection	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
Skin/body protection	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
Respiratory protection	Label advice indicates none necessary under normal handling and use. However, consider other precautionary requirements.
Environmental Exposure Controls	Use only in accordance with instructions given. An ecological hazard assessment indicates no specific restrictions on environmental release.

SECTION 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance, odour and physical state	Colourless, odourless gas.		
pH	Not applicable.	Solubility in water	2.0 g/L
Density	1.8 mg / cm ³	Solubility in other solvents	Not determined.
Relative density	Not determined.	Explosive properties	None.
Flash point	Not applicable.	Combustibility	Non-combustible.
Flammability	Non-flammable.	Oxidising properties	None.
Initial boiling Point and boiling range	strats at ca, -88.1°C	Evaporation rate	Not applicable.
Vapour Density	1.519 (air =1)	Partition coefficient: n-octanol/water	Not applicable.
Vapour pressure	5730 KPa.	Decomposition temperature	Not determined.
Melting point / Freezing point	Not applicable.	Auto-ignition temperature	Not determined.

9.2 Other Information

Upper/lower flammability or explosive limits	Not applicable.	Other safety information	Not applicable.
Viscosity	Not applicable.		

SECTION 10 Stability and Reactivity

10.1 Reactivity	None expected under normal conditions of handling and use.
10.2 Chemical stability	This product is stable under normal conditions of handling and use.
10.3 Possibility of hazardous reactions	None expected under normal conditions of handling and use.
10.4 Conditions to avoid	Avoid exposure to direct sunlight or temperatures exceeding 50°C. Do not pierce or burn even after use.
10.5 Incompatible materials	None known.
10.6 Hazardous decomposition products	None.

SECTION 11 Toxicological Information (see also box 2)

11.1 Information on toxicological effects		
Acute Toxicity	Oral	This route of exposure is not anticipated.
	Inhalation	Concentration of 10% carbon dioxide or more can produce unconsciousness or death and may cause asphyxiation in high concentrations. Symptoms of asphyxiation may include loss of mobility and /or consciousness and may come about so rapidly that victim maybe unaware and unable to protect themselves. Avoid breathing gas.
	Dermal	This route of exposure is not anticipated.
Corrosivity/ Irritation	Skin	Aerosol canister: Contact with CO2 liquid may cause cold burns/frost bite.
	Eyes	This route of exposure is not anticipated.
	Respiratory tract	Not determined.
Sensitisation	Skin	Contains no known skin sensitisers.
	Respiratory	Contains no known respiratory sensitisers.
Repeated dose toxicity;	Product does not contain any components known to have any effects relating to repeated-dose toxicity.	
Mutagenicity	Product does not contain any components known to have a mutagenic effect.	
Carcinogenicity	Product does not contain any components known to have a carcinogenic effect.	
Reproductive Toxicity	Fertility	Product does not contain any components known to have effects on fertility.
	Developmental	Product does not contain any components known to be toxic to the reproductive system.
Other data	Exposure to an oxygen deficient atmosphere may cause the following symptoms: shivering fit, blurred vision, sweating, headache, increased pulse rate, shortness of breath, rapid respiration, dizziness, salivation, nausea, vomiting, and loss of mobility/consciousness. Cylinder contains gas under pressure which may explode if heated.	

SECTION 12 Ecological Information

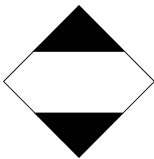
12.1 Toxicity	
General information	This product does not contain any substances that are classified dangerous to the environment. Controlled release of this product is not expected to cause environmental contamination. Use only in accordance with the instructions given.

Ecotoxicity data	For fish increased levels of up to 6.3% carbon dioxide do not give rise to irreversible physiological and behavioural effects. Carbon dioxide is essential for fish physiology. For algae: carbon dioxide is essential for photosynthesis.
12.2 Persistence and degradability	Carbon dioxide evolution is one of the major end points used in biodegradability tests. Ready biodegradability describes the conversion of test substances to carbon dioxide; thus recognising that usually there will not be any further degradation.
12.3 Bioaccumulative potential	Since Carbon Dioxide is a naturally occurring substance that all living organisms are exposed to, and which plays a vital role in the normal maintenance of life, bioaccumulation is not anticipated.
12.4 Mobility in soil	Due to its gaseous nature, carbon dioxide will attain equilibrium with air spaces in soil through passive diffusion.
12.5 Results of PBT and vPvB assessment	Does not meet requirements for assessment.
12.6 Other Adverse Effects	Discharge to the environment should be avoided.

SECTION 13 Disposal Considerations

13.1 Waste treatment methods	The best means of disposal of any product is through proper use according to the label. Disposal must be in accordance with Local, State or National Requirements.	
Product/packaging disposal	Under normal circumstances, waste product / empty containers will be disposed of by Rentokil Initial.	
Classification (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC))	Hazard Code: Not classified.	
	Substances making the waste hazardous:	Concentrations (%):
	Not applicable.	
Note for Disposal	Disposal must be in accordance with Local, State or National Requirements.	

SECTION 14 Transport Information (International unless otherwise indicated)

ADR 2011 (International Road) / IMDG 2010 (Sea)			
14.1 UN number	1950	RIS Code	2.5-3.0g FR 17.
14.2 UN Proper Shipping Name	AEROSOLS.		
14.3 Transport hazard class(es)	2		
ADR HIN	Not applicable, aerosols are not allowed to be carried in tanks or in bulk.		
UK Hazchem EAC	Not applicable, aerosols are not allowed to be carried in tanks or in bulk.		
IMDG EMS	F-D, S-U		
14.4 Packing Group	Not applicable.		Labels 
Transport Category	3		
14.5 Environmental hazards	Not applicable.		
Marine pollutant	Not applicable.		
Additional precautions	Not applicable.		
14.6 Special precautions for user	Not required.		
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.		
Limited Quantity Exemptions	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.

Note for Transport

Local, State or National requirements may apply to the carriage of this product.

SECTION 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Authorisations and/or restrictions on use

Information to be made available according to ECHA review programme.

Other EU regulations

This safety data sheet was prepared in accordance with EC Directive 1907/2006. Labelling is in accordance with EC Directive 1272/2008. Additional labelling requirements may be necessary in accordance with other National legislation. The registration of this product may be necessary before use and any additional local requirements must be observed at all times. Other National measures or guidance should be followed where appropriate.

15.2 Chemical safety assessment

Information to be made available according to ECHA review programme.

SECTION 16 Other Information

Revisions	Changes have been made to the content of boxes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, compared with issue 7.
Abbreviations and acronyms	<p>Typical standard abbreviations and acronyms used in Rentokil Initial Safety Data Sheets are as follows:</p> <p>ADR 2011 - International Carriage of Dangerous Goods by Road (ADR) ADR HIN - ADR Hazard Identification Number (HIN) Annex I DNEL or PNEC - Derived No Effect Level / Predicted No Effect Concentration CAS No - Chemicals Abstract Service Registry Number COSHH assessments - Control of Substances Hazardous to Health ECHA - European Chemicals Agency EC No - European Commission number EN469 - European standard for Personal Protective Equipment used for fire fighting EN standards for PPE - European Standards for Personal Protective Equipment EWC - European Waste Catalogue Code IMDG 2010 - International Maritime Dangerous Goods (IMDG) Code IUPAC - International Union of Pure and Applied Chemistry LD₅₀ - Median lethal dose LC₅₀ - Lethal concentration REACH - Registration, Evaluation, Authorisation and restriction of Chemicals RIS Code - Internal manufacturing code number WEL - Workplace Exposure Limit UK Hazchem EAC - UK Hazchem Emergency Action Code</p> <p>Typical Directives and Regulations referred to Rentokil Initial Safety Data Sheets are as follows:</p> <p>Commission Decision 95/320/EC - Scientific Committee for Occupational Exposure Limits to Chemical Agents Commission Decision 2000/532/EC - List of wastes Commission Decision 2001/118/EC - Amendment to 2000/532/EC with regards to List of wastes Directive 67/548/EEC - Dangerous Substances Directive Directive 76/768/EC (as amended) - The Cosmetics Directive Directive 89/686/EEC - The Personal Protective Equipment (PPE) Directive Directive 91/689/EC - Directive on Hazardous waste Directive 98/24/EC (1st IOELV Directive) - Chemical Agents Directive 98/24/EC Protection of the Health and Safety of Workers from the Risks from Chemical Agents IOELV Directive: Indicative Occupational Exposure Limit Values Directive 1907/2006 - REACH (Registration, Evaluation, Authorisation and restriction of Chemicals) Directive 1999/45/EC - Dangerous Preparations Directive Directive 2004/37/EC - Carcinogens and Mutagens Directive Regulation (EC) No. 648/2004 - Detergents Regulation Regulation (EC) No 1272/2008 - Classification, Labelling and Packaging</p>

Key literature references and sources for data	For details of the data and information sources used, please contact Rentokil Initial using the details in Section 1.
Classification and used classification procedure for mixtures labelled to Directive 1999/45/EC according to Regulation (EC) No 1272/2008	Not applicable.
Risk phrase/Hazard statement text (From section 3 - These refer to the ingredients only. See section 2 for the product risk phrases)	Risk phrases are not required. Hazard phrases are a requirement of Regulation (EC) No 1272/2008, and will be listed when available.
Training advice	Always read the label and product information before use. Ensure you have received adequate training and or instructions before use.
Further Information	Single-use aerosol canister containing 2.5 – 3.0g of carbon dioxide within a tamper resistant unit.

RADAR

SDS No. 791 - EN - GB

Issue : 8

06 : 03 : 2013

Page 8 of 8

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. Neither Rentokil Initial plc nor any of its subsidiaries accepts any liability 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.