

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 at the address below by telephone, fax or in writing. In order to confirm the latest version of the SDS for this product see web: www.ri-research.com and click on Technical Information / Product Safety.

REVISION (see box 16)

Issue : 03 01 : 07 : 2004

| 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY | |
|--|---|
| PRODUCT NAME | RADAR |
| DESCRIPTION | A unit intended for professional use, for the dispatch of mice via exposure to carbon dioxide. Carbon dioxide is released from a single aerosol canister into the unit when the unit is triggered by the entry of a mouse. Carbon dioxide is a colourless gas with a sharp odour. |
| COMPANY | 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 |

| 2 HAZARD IDENTIFICATION |
|---|
| CLASSIFICATION AND DANGER SYMBOL (SUPPLY – USE) : IN COMPLIANCE WITH EC DIRECTIVE 1999/45. |
| Not classified |
| ADVERSE PHYSICAL, CHEMICAL, SIGNIFICANT HUMAN HEALTH AND ENVIRONMENTAL EFFECTS (SEE ALSO BOX 11): |
| No significant adverse physical chemical effects expected. Prolonged exposure to low levels of carbon dioxide contained in the RADAR unit may cause headache and feelings of exhaustion. In high levels, carbon dioxide may cause asphyxiation. Adverse effects on the environment are unlikely, provided that the product is used as intended. |

| 3 COMPOSITION / INFORMATION ON INGREDIENTS (SEE ALSO BOX 16) | | |
|---|--|----------------------------------|
| % w/w | COMMON*/CHEMICAL NAME, ELINCS/EINECS AND CAS OF INGREDIENTS | EC 1999/45 CLASSIFICATION |
| 100 | Carbon dioxide – as released into the RADAR unit when triggered by the entry of a mouse. EINECS : 204-69-69 CAS : 124-38-9 | Not classified. |

RADAR

4 FIRST-AID MEASURES (SEE ALSO "ADVERSE EFFECTS" IN BOX 2)

| | |
|--------------------------------------|---|
| INHALATION | RADAR contains a small volume of carbon dioxide in an aerosol. If exposed to high levels of carbon dioxide, remove patient to fresh air, keep warm and at rest. Apply supportive measures if necessary and seek medical attention. |
| EYE CONTACT | Unlikely route of exposure. However, if exposed to carbon dioxide in the RADAR unit, 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. |
| SKIN CONTACT | Unlikely route of exposure. However, if exposed to carbon dioxide in the RADAR unit, remove and wash contaminated clothing immediately. Wash affected area thoroughly with soap and water. If the patient feels unwell seek medical advice. |
| INGESTION (SWALLOWING) | Unlikely route of exposure. However, if exposed to carbon dioxide in the RADAR unit, 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. |
| 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". |
| NOTE TO DOCTOR | 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. |

5 FIRE FIGHTING MEASURES

| | |
|---|---|
| FIRE EXTINGUISHER TYPE | Keep carbon dioxide aerosol present in RADAR unit cool with water hosed from a safe distance. |
| SPECIAL FIRE-FIGHTING PROCEDURES | Wear suitable personal protective equipment. |
| SPECIAL EXPOSURE HAZARDS | Aerosol containing carbon dioxide may explode when exposed to extremes of heat. |

6 ACCIDENTAL RELEASE MEASURES

| | |
|--|--|
| PERSONAL PRECAUTIONS (See also box 8) | Wear suitable personal protective equipment. |
| ENVIRONMENTAL PRECAUTIONS | DO NOT contaminate watercourses or ground. |
| CLEAN-UP PROCEDURE (See also box 13) | The carbon dioxide present in the aerosol used in the RADAR unit will disperse naturally into air. If large volumes of carbon dioxide are released, ensure contaminated area is well ventilated. |

7 HANDLING AND STORAGE

| | |
|-----------------|---|
| HANDLING | Do not breathe carbon dioxide directly from the aerosol. |
| STORAGE | 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. Avoid extremes of temperature. |

8 EXPOSURE CONTROLS/PERSONAL PROTECTION (SEE ALSO BOX 7)

| | |
|--|---|
| EXPOSURE STANDARD - DIRECTIVE EC/98/24 (1ST IOELV DIRECTIVE) | OES for carbon dioxide is 9150 mg/m ³ long-term exposure (8 hour Time Weighted Average) and 27,400 mg/m ³ short-term exposure (15 minute reference period). |
| ENGINEERING CONTROLS | 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): |
| EYE PROTECTION | None necessary under normal working conditions. |
| HAND PROTECTION | None necessary under normal working conditions. |
| SKIN PROTECTION | None necessary under normal working conditions. |
| BREATHING PROTECTION | None necessary under normal working conditions. |
| ENVIRONMENTAL EXPOSURE CONTROLS | Product should be used in accordance with instructions given. |

9 PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-----------------------------|---|------------------------------|---|
| APPEARANCE AND ODOUR | A white, tamper resistant unit for the dispatch of mice via exposure to carbon dioxide released from a white aerosol canister. Carbon dioxide is a colourless gas with a sharp odour. | | |
| pH | Not applicable. | SOLUBILITY IN WATER | For carbon dioxide gas: soluble. |
| RELATIVE DENSITY | For carbon dioxide (gas): 1.52 (air = 1) | SOLUBILITY IN FAT | For carbon dioxide gas: insoluble. |
| FLASH POINT | Not applicable. | EXPLOSIVE PROPERTIES | Aerosol containing carbon dioxide may explode when exposed to extremes of heat. |
| FLAMMABILITY | Non-flammable. | COMBUSTIBILITY | Non-combustible. |
| AUTOFLAMMABILITY | Not applicable. | OXIDISING PROPERTIES | Not determined. |
| BOILING POINT/RANGE | For carbon dioxide (liquid): - 56.6°C | MELTING POINT/RANGE | For carbon dioxide: -78°C (sublimes) |
| VAPOUR DENSITY | Carbon dioxide vapours are heavier than air. | EVAPORATION RATE | Not applicable. |
| VAPOUR PRESSURE | Not determined. | PARTITION COEFFICIENT | Not determined. |
| VISCOSITY | Not applicable. | OTHER DATA | None known. |

10 STABILITY AND REACTIVITY

| | |
|-------------------------------------|--|
| CONDITIONS TO AVOID | For the RADAR unit: Avoid contact with large volumes of water, and extremes of temperature (e.g. below 0°C and above 50°C). For the aerosol of carbon dioxide used in the RADAR unit: Avoid extremes of temperature, e.g. below 0°C and above 50°C. |
| MATERIALS TO AVOID | None. |
| HAZARDOUS BREAKDOWN PRODUCTS | None. |

11 TOXICOLOGICAL INFORMATION (SEE ALSO BOX 2)

| | | |
|--------------------------------|---|---|
| ACUTE TOXICITY | ORAL INHALATION | Unlikely route of exposure. Prolonged exposure to low levels of carbon dioxide contained in the unit may cause headache and feelings of exhaustion, but these effects are physiologically reversible. In high levels, carbon dioxide may cause asphyxiation. |
| CORROSIVITY/ IRRITATION | DERMAL SKIN EYES RESPIRATORY TRACT | Unlikely route of exposure. Unlikely route of exposure. Unlikely route of exposure. Unlikely route of exposure. |
| SENSITISATION | SKIN RESPIRATORY | Unlikely route of exposure, however the carbon dioxide contained in the unit is not a known skin sensitiser. Unlikely route of exposure, however the carbon dioxide contained in the unit is not a known respiratory sensitiser. |
| REPEAT-DOSE TOXICITY | | The carbon dioxide contained in the unit is not known to have any effects relating to repeated-dose toxicity. |
| MUTAGENICITY | | The carbon dioxide contained in the unit is not known to have a mutagenic effect. |
| CARCINOGENICITY | | The carbon dioxide contained in the unit is not known to have a carcinogenic effect. |
| REPRODUCTIVE TOXICITY | FERTILITY DEVELOPMENT | The carbon dioxide contained in the unit is not known to have effects on fertility. The carbon dioxide contained in the unit is not known to be toxic to the reproductive system. |
| OTHER INFORMATION | | None. |


12 ECOLOGICAL INFORMATION

| | |
|--|--|
| GENERAL INFORMATION | The full ecotoxicological profile of this product has not been evaluated. Do not contaminate the environment. |
| ECOTOXICITY DATA | Carbon dioxide may cause pH changes in the aquatic environment. However, the carbon dioxide contained in the RADAR unit is not expected to cause adverse environmental effects when used under normal conditions of use. |
| MOBILITY (of appropriate constituents) | Not determined. |
| PERSISTENCE AND DEGRADABILITY (of appropriate constituents) | Not determined. |
| BIOACCUMULATIVE POTENTIAL (of appropriate constituents) | Not determined. |
| ENVIRONMENTAL CONSIDERATIONS | This product does not contain any substances that are classified as dangerous to the environment. Thus, when supplied, used and disposed of as directed this product is not expected to present a danger to the environment. |
| OTHER ADVERSE EFFECTS | None. |

13 DISPOSAL CONSIDERATIONS

| | |
|---|--|
| DISPOSAL OF WASTE | Under normal circumstances, waste will be disposed of by Rentokil Initial. |
| DISPOSAL OF CONTAINERS: | Under normal circumstances, empty containers will be disposed of by Rentokil Initial. |
| CLASSIFICATION OF INGREDIENTS. (Council Directive 91/689/EC, Commission Decision 2000/532/EC (amended) Commission Decision 2001/118/EC)) | Hazard Code: Not classified. |
| NOTE FOR DISPOSAL | Components making the waste hazardous Concentrations (%): Not required. 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: 0845 9333111. |

14 TRANSPORT INFORMATION (INTERNATIONAL UNLESS OTHERWISE INDICATED)

| | | | | |
|--|--|-------------------------------|---|--|
| UN No. | 1950 | TREMCARD REFERENCE No. | CEFIC TEC (R)-20G53 | RIS CODE N/A |
| TRANSPORT CATEGORY | 3 | UK HAZCHEM EAC | Not applicable, aerosols are not allowed to be carried in tanks or in bulk. | |
| ADR 2003 (INTERNATIONAL ROAD) PROPER SHIPPING NAME LIMITED QUANTITY EXCEPTIONS SPECIAL REQUIREMENTS | CLASS 2 AEROSOLS Individual aerosols should not exceed 1000ml and be carried in combination packages not exceeding 30 kg. If carried in shrink-wrapped trays, the total gross mass of the package must not exceed 20 kg. Not required. | ADR HIN | Not applicable, aerosols are not allowed to be carried in tanks or in bulk. PACKING GROUP Not applicable. | LABELS  |
| IMDG 2002 (SEA) PROPER SHIPPING NAME LIMITED QUANTITY EXCEPTIONS SPECIAL REQUIREMENTS | CLASS 2 AEROSOLS Individual aerosols should not exceed 1000ml and be carried in combination packages not exceeding 30 kg. If carried in shrink-wrapped trays, the total gross mass of the package must not exceed 20 kg. Not required. | IMDG EMS | F-D, S-U PACKING GROUP Not applicable. | |
| NOTE FOR TRANSPORT | Local, State or National requirements may apply to the carriage of this product | | | |

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

| | |
|-----------------------------|--|
| HAZARD SYMBOLS | Not required. |
| INDICATION OF DANGER | Not required. |
| RISK PHRASES | Risk phrases are not required. |
| SAFETY PHRASES | Safety phrases are not required. |
| LEGISLATION | 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.

| | |
|--------------------------------------|--|
| 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 (as indicated by the thick lines on the left-hand side of the boxes) compared with issue 02. |
| RISK PHRASE TEXT (from box 3) | Risk phrases are not required. |

RADAR

SDS No. 791

Issue : 03

01 : 07 : 2004

Page 4 of 4

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.

Copyright © (2004) Rentokil Initial plc, R&D, Felcourt, East Grinstead, West Sussex. RH19 2JY. United Kingdom.

Telephone: +44 (0) 1342 833022 Fax: +44 (0) 1342 326229 Web: www.ri-research.com