

87942-1

03/28/2012

1/12



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:

87942-1

Date of Issuance:

MAR 28 2012

NOTICE OF PESTICIDE:

- x Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

RADAR

Name and Address of Registrant (include ZIP Code):

Rentokil Initial plc
c/o Tox Monitor BSR
33 Chicago Ave
Oak Park, IL 60302

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is registered in accordance with FIFRA section 3(c)(5) provided that you:

- 1. Per 40 CFR 156.10(a)(6), submit one copy of your final printed labeling before you release the product for shipment. As defined in 40 CFR 152.3, "final printed labeling" means the "label or labeling of the product when distributed or sold." Clearly legible reproductions or photo reductions will be accepted for unusual labels. Note that a clean copy of the master label in most cases does not meet the definition of final printed labeling.
2. Revise the EPA Registration Number to read "EPA Reg. No. 87942-1".

Confidential Statement of Formula

The acceptable Confidential Statement of Formula(s) (CSF) for this product are:

1 Basic CSF - dated 02/17/12

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Gene Benbow at (703) 347-0235 or via email at benbow.gene@epa.gov.

Signature of Approving Official:

Handwritten signature of John Hebert

John Hebert
Product Manager 07
Insecticide-Rodenticide Branch
Registration Division (7505P)

Date:

MAR 28 2012

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ACCEPTED
MAR 28 2012

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
Registered under
EPA Reg. No. 87942-1

Rentokil

The Experts in Pest Control

EPA Est. No. : 087942-GBR-001

EPA Reg. No.: 87942-R

**MADE IN THE
UNITED KINGDOM**

Manufactured for:
Rentokil Initial plc; 33 Chicago
Ave, Oak Park, IL 60302

RADAR

Active Ingredient: Carbon Dioxide 100.00%
TOTAL 100.00%

KEEP OUT OF REACH OF CHILDREN

WARNING

FIRST AID

If Inhaled

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison centre, doctor, or when seeking medical treatment. For emergency information concerning this product, call the National Pesticide Information Center at 800-858-7378.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING: May be fatal if inhaled. Do not breathe vapor. Concentrations of > 10% carbon dioxide can produce unconsciousness or death. High concentrations may cause asphyxiation; symptoms include loss of mobility and/or consciousness. Wear waterproof gloves when cleaning the unit and handling rodent bodies.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labelling. Read all directions for use carefully before applying. This canister is for use only in the RADAR unit. Canister is designed to drop into place inside unit – do not use force. Before use, refer to the RADAR booklet for information on how to use the Radar trap.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a cool, dry area in original container away from food.

Container Handling: Do Not Puncture or Incinerate! **If empty:** Place in trash or offer for recycling, if available. **If partly filled:** Call your local solid waste agency for disposal instructions.

MANUFACTURED BY: Rentokil Initial Supplies, Liverpool, L33 7SR, UK.

IMPORTED BY: JC Ehrlich, DBA: Ehrlich Distribution 5000 Spring Ridge Dr. Wyomissing, PA. 19610

For Batch No and Use by date: See base of can.

Net Weight: 0.1oz Carbon Dioxide

Label No.: 031212-017

ACCEPTED
MAR 28 2012
 Under the Federal Insecticide,
 Fungicide, and Rodenticide Act,
 as amended, for the pesticide
 Registered under
 EPA Reg. No. 87942-1

OPERATING RADAR

Rentokil
 The Experts in Pest Control

EPA Est. No. :087942-
 GBR-001
 EPA Reg. No.: xxxxxx

RADAR

Active Ingredient: Carbon Dioxide 100.00%
 TOTAL 100.00%

A READY-TO-USE PRESSURISED GAS. FOR USE ONLY AS A RODENTICIDE.

NOT FOR SALE OR SUPPLY: INTENDED FOR USE BY PROFESSIONAL APPLICATORS. PROTECT FROM FROST AND EXCESSIVE AMOUNTS OF WATER.

KEEP OUT OF THE REACH OF CHILDREN

WARNING

FIRST AID

| | |
|------------|---|
| If Inhaled | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control centre or doctor for treatment advice. |
|------------|---|

Have the product container or label with you when calling a poison centre, doctor, or when seeking medical treatment. For emergency information concerning this product, call the National Pesticide Information Center at xxx-xxx-xxxx

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS - **WARNING:** May be fatal if inhaled. Do not breathe vapor. Concentrations of > 10% carbon dioxide can produce unconsciousness or death. High concentrations may cause asphyxiation; symptoms include loss of mobility and/or consciousness. It is recommended that gloves are worn when cleaning the unit and handling rodent bodies.

DIRECTIONS FOR USE: It is a violation of Federal Law to use this product in a manner inconsistent with its labelling. Read all directions for use carefully before applying. RADAR is intended to monitor for, and control, casual intruders or rapidly eliminate small infestations of mice. It should not be used to control high levels of infestations. RADAR units are intended to dispatch and kill one mouse at a time. To set the unit - Open the RADAR unit using the supplied key. The unit is supplied with battery fitted. Slide the circuit board switch to 'ON' - the LED will flash once and then remain illuminated permanently. Pass your finger across first beam and the LED will flicker repeatedly. Move your finger to the second beam within 4 seconds - the solenoid will self test to complete the check and the unit doors will close. 5 seconds after the self test has completed, the LED will flash 5 times to indicate that it is fully armed and that the unit is ready for installation. Set the trigger by pressing the red door lever down until it is locked under the blue catch. Remove the blue safety pin from the CO2 canister before installing in the unit. Drop in canister - it should not need forcing. Close the unit securely. Place the unit at appropriate intervals such as every 2-3 metres depending on site survey, where mice are active, in runs or near harbourages. Units should not be placed where likely to come into contact with large amounts of water. Inspect the unit at every site visit (usually every 8 weeks), or as required and re-set as necessary. Prior to re-set, ensure that the unit is clean and fit for purpose. Units can be cleaned using suitable wipes. All units must be removed after treatment or when no longer needed for monitoring. For further guidance on how to use this product, read the attached leaflet, 'OPERATING RADAR' before use.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in a cool, dry area in original container. Store away from food.

Pesticide disposal: Nonrefillable container. Do not reuse or refill this container.

Container handling: Do Not Puncture or Incinerate! If empty: Place in trash or offer for recycling, if available. If partly filled: Call your local solid waste agency for disposal instructions. Under normal circumstances, waste product / empty containers and rodent bodies will be disposed of by Ehrlich.

MANUFACTURED BY: Rentokil Initial Supplies, Liverpool, L33 7SR, UK. Product Advice Line: +44(0) 151 5485050. Emergency Line: +44(0) 1342 833022.

IMPORTED BY:

For Batch No and Use by date.: See base of can.
Label No.: xxxxxx-xxC4

Net Weight: 0.1oz Carbon Dioxide

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OPERATING RADAR

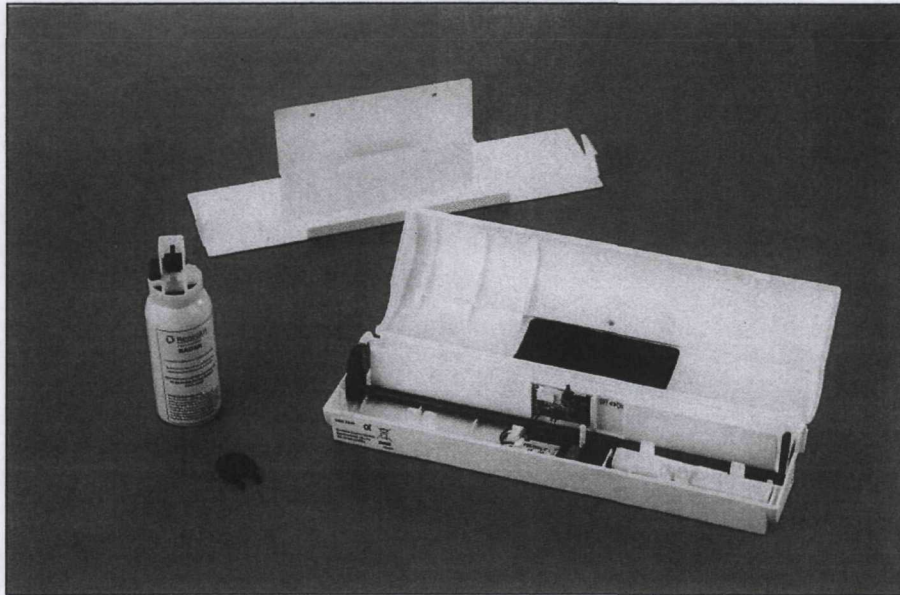
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1. Receipt of Unit

Please check that the box contents are present and undamaged:



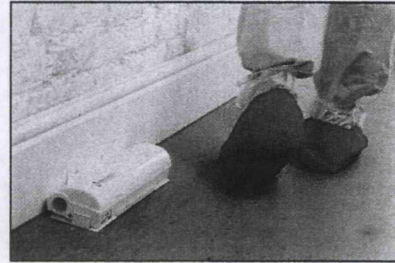
- FR50 Radar
- FR15 Radar CO₂ Canisters (Aluminium)
- FR75 Radar CO₂ Canisters (Tin Plate)
- FR36 Radar Battery Pack with diode
- FR55 Radar Fixing Brackets
- FR22 Extended Lead (1.5m)
- The battery packs and CO₂ canisters should be free from corrosion, dents and within the expiry date.



2. Location / Installation



Radar units should be sited along wall / floor junctions, behind machinery and equipment, i.e. anywhere that bait boxes and mouse monitor units (MMU's) would normally be placed. Units should be secured with fixing brackets if possible to prevent the unit being accidentally moved, knocked or removed by unauthorised persons. The unit must be sited where the LED is clearly visible to signal activation.



2.1 Location Parameters

This table is a reference point for suitable operating environments for the Radar:

| Environmental Restrictions | Details |
|---------------------------------------|---|
| Outdoor use | Radar has been specifically designed for indoor applications only. The product is not suitable for outdoor use. |
| High levels of surface water | The system electronics can be damaged by water. Take care to locate units away from areas where local high pressure washing or hosing down operations are carried out. |
| High levels of dust / grease | It is important that units are kept clean, especially if installed in areas where high levels of dust or grease are present. Cleaning guidelines must be followed to prevent damage to the units. |
| Knocking / kicking | Care must be taken to locate units away from pedestrian traffic to avoid false activation. This can be prevented by mounting units on fixing brackets. |
| Extreme temperature (<0°C) | Extremely low temperatures (i.e. unheated warehouses) could affect Radar's performance and may result in the unit entering low battery status mode. |
| High humidity (> 80%) or condensation | High humidity and / or condensation could result in damage to the unit's control electronics and result in false activations. |
| High levels of vibration | High vibration due to localised machinery / fridge compressors etc could affect the performance of the unit and result in false activations. |



3. Operating Mouse Radar

3.1 Set up

- Open the Radar unit using the supplied key. (Figure 1)
- The unit is supplied with the battery fitted.
- Slide circuit board switch to 'ON' – the LED will flash once and then remain illuminated permanently. (Figure 2)
- Pass your finger across the first beam and the LED will flicker repeatedly. (Figure 3)
- Move your finger to the second beam within four seconds – the solenoid will self test to complete check and the unit doors will close.
- 5 seconds after the self test has completed, the LED will flash 5 times to indicate that it is fully armed and that unit is ready for installation.
- Set the trigger by pressing the red door lever down until it is locked under the blue catch. (Figure 4 & 5)
- Remove the blue safety pin from the CO₂ canister and ensure the canister is within its expiry date before installing into the unit. (Figure 6 & 7)
- Locate the canister in position – it should not need forcing. (Figure 8)
- Close the unit securely. (Figure 9)

Note: If the canister resists the fittings, it is likely to be used and in need of disposal



Figure 1

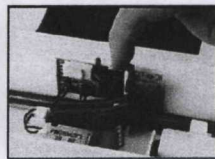


Figure 2

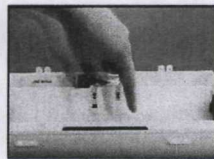


Figure 3

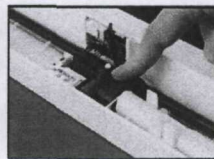


Figure 4

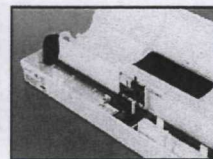


Figure 5



Figure 6



Figure 7

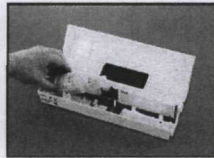


Figure 8

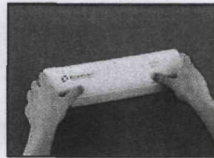


Figure 9

3.2 Routine Servicing – Inactivated Units

- Switch the unit 'OFF' before servicing.
- Remove the CO₂ canister – check the best before date on canister. If within expiry date it may be reused.
- Remove any external dirt, paying particular attention to any accumulated dirt on the underside of the unit.
- Clean the unit inside out, following the cleaning guidelines. (See Section 7.1)
- Check the operation of the unit, following set up guidelines. (See Section 6.1)

3.3 Activated Units

- Put on protective gloves.
- Open the unit and slide the circuit board switch to 'OFF'.
- Dispose of dead mouse according to your local waste regulations.
- Remove the used CO₂ canister.
- Canisters can only be used once and must not be reused.
- Do not mix the canister with new stock – mark it as used by pressing a dent into the metal and separate for disposal. (Figure 10)
- Clean the inside of the unit following the cleaning guidelines (See Section 7.1)
- Reset the unit, referring to the setup guidelines (See Section 6.1)



Figure 10



3.4 False Activations

See Troubleshooting Section (Section 6)

3.5 LED Sequences

Radar signals its status via the red light emitting diode (LED) on top of the unit. Once setup the LED will only flash when the unit is activated. The light sequences are as follows:

| LED status | Unit status |
|---|---|
| Continuous indicator ● | Switch on / reset |
| Flickering indicator ● | Infrared detector functional – during setup / test mode |
| 5 red flashes ●●●●● | End of test period - unit fully armed |
| No flashes ○ | Armed mode (Please note that the Mk I flashes once every 5 seconds when in armed mode) |
| 1 red flash every 4 seconds ● / 4 seconds | Unit activated |
| 2 red flashes every 4 seconds ●● / 4 seconds | Low battery or unit fault (Please note that doors will also close) |

4. Maintenance

Radar requires no maintenance other than cleaning and management of the batteries and CO₂ canisters.

4.1 Cleaning

The recommended cleaning product for Radar is the *Universal Hard Surface Wipes (PSU01)*. These wipes are readily available from Rentokil Initial Supplies.

- Put on some protective gloves.
- Remove the dead mouse and dispose of it in accordance to standard protocol. Remove any external dirt, paying particular attention to any accumulated dirt on the underside of the unit.
- Clean the inside of the unit, cleaning any fur, urine, droppings, etc. (Figure 11)



Figure 11

4.2 Batteries

Alkaline batteries can currently be disposed of in accordance with local, national or state regulations, or recycled where such facilities exist. It is recommended that battery packs are replaced every 12 months, irrespective of use, to ensure that they are fit for purpose.



4.3 CO₂ Canisters

A new canister (figure 12) will need to be inserted every time the Radar unit is activated (please ensure a new canister is within the expiry date). After firing, the red wedge at the neck of the CO₂ canister it is held inside by a ratchet that empties it completely. This ensures that empty canisters cannot be reused by mistake. Empty canisters are not classified as hazardous waste and can therefore be disposed of in accordance with local, national or state regulations, or recycled where such facilities exist. However, full canisters are classified as "Hazardous Pesticide Waste" and therefore MUST be discharged prior to disposal. The canisters should be discharged by holding the canister horizontally away from the body and pushing the trigger, thus dispensing the contents. It is recommended that CO₂ canisters are replaced every 12 months, irrespective of use, to ensure that they are fit for purpose.



Figure 12

5. Use with PestNetOnline

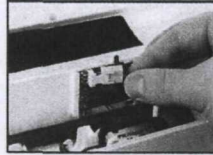
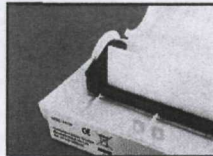
PestNetOnline (PNOL) is a system that enables customers to access their pest control treatment records via the Internet. At the customer's premises, each Radar unit is identified by a barcode sticker that is scanned during the service treatment using a handheld PDA unit.

Note: In order to carry out a PNOL treatment, the Pest Control programme must be logged out. Carrying out a treatment will NOT record the visit on the daily treatment report. This will have to be separately recorded when the treatment is finished.

For complete instructions, please refer to the PestNetOnline user guide.



6. Troubleshooting

| Issue | Cause | Solution |
|---|---|---|
| The LED does not illuminate when unit switched on | Insufficient power | Change battery |
| | | Check battery connection – please ensure that wires are fed between the door beam and lever to prevent them becoming damaged  |
| Doors do not close | Faulty components | Report back to RIS Kirkby UK |
| | Insufficient tension in the springs | Check the springs are fitted into the grooves at each end of the door arm  |
| Mouse alive in unit | Empty / faulty CO ₂ canister | Replace the unit if damaged by the mouse or reset the unit with a new CO ₂ canister |
| Unit is immediately activating when the unit is turned on | Infrared detectors are detecting foreign material | Wipe Infrared emitters and detectors clean with a recommended cleaning wipe |
| LED flashing once every 4 seconds | Unit activated | Follow servicing guidelines |
| LED flashing twice every 4 seconds | Low battery | Change the battery |
| | Unit fault | If battery change does not rectify the issue, return to RIS |

Any other faults:

- Report any other faults immediately via PNOL if registered with the service proposition.
- If in any doubt, DO NOT USE the unit – return to RIS for fault evaluation.



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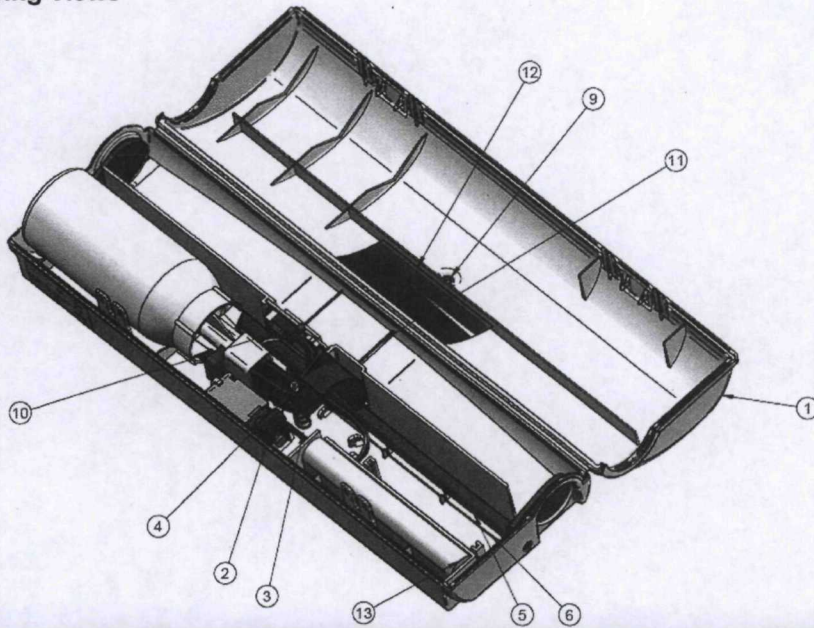
7. Technical Specifications

| Technical Specifications | |
|---------------------------|--|
| Dimensions (L * D * H) | 308mm x 196mm x 60mm |
| Weight (kg) | 415g (including full gas canister) |
| Material | White Polypropylene casing |
| Detection system | Pulsed, reflective dual Infrared beam sensors |
| Rodenticide | 0.1 ounces (2.8 grams) CO ₂ , gas purity >99.9%, canister is a tin plate construction |
| Consumables | Battery pack, CO ₂ canister (please ensure these are within the expiry date) |
| Power supply | 6V – 4 x AA cell Alkaline battery pack |
| Degree of protection (IP) | IP 21 (drip proof) |
| Set up time | 5 seconds |
| Guarantee | 2 years, return to RIS |



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8. Drawing Views



| Item Number | Component Name |
|-------------|--|
| 1 | Main case moulding |
| 2 | Trigger |
| 3 | Level spring |
| 4 | Lever |
| 5 | Door beam |
| 6 | Door beam spring |
| 9 | Lens |
| 10 | Printed circuit board assembly |
| 11 | Pressure pad recess blanking plate |
| 12 | Sensor label – DO NOT REMOVE |
| 13 | 6V – 4 x AA cell Alkaline battery pack |

