1 Identification of substance

- Trade name: RABORAL V-RG® with Bait
- Product number: 2314, 2314C, 2314F, 2314R, 2316, 2316C, 2316F, 2316R
- Manufacturer/Supplier:
  Merial Limited
  115 Transtech Drive
  Athens, GA 30601
  Tel.: +1 706 548 9292
- Information department: MSDS Coordinator
- Emergency information:
  Spill Information:
  CHEMTREC® 1-800-424-9300
  CHEMTREC® International 1+703-527-3887
  International calls 011+703-527-3887
  Reverse charges.

2 Composition/Data on components

- Chemical characterization:
  · CAS No. Description
  Non hazardous substance
- Chemical characterization
  · Vaccine components
  This product is a vaccine (biological) for use in animals.
  It is not considered to be a hazardous chemical in accordance with the OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200.
- Liquid component contains:
  This product consists of a gene-deleted, attenuated live vaccinia virus vector which expresses rabies glycoprotein.

3 Hazards identification

- Hazard description: Not applicable.
- Classification system:
- NFPA ratings (scale 0 - 4)
  Health = 1
  Fire = 0
  Reactivity = 0
- HMIS-ratings (scale 0 - 4)
  HEALTH Health = 1
  FIRE Fire = 0
  REACTIVITY Reactivity = 0
4 First aid measures

- **General information:** No special measures required.
- **After inhalation:** Not an expected route of entry.
- **After skin contact:**
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation occurs, consult a doctor.
- **After eye contact:**
  Rinse opened eye for a minimum of 15 minutes under running water. Get medical attention immediately.
- **After swallowing:** Immediately call a doctor.
- **After self injection**
- **Information for doctor.**
  The following symptoms may occur
  Localized skin lesions are possible.
- **Danger**
  Potentially hazardous to health if any of the following should occur: Ingestion, parenteral inoculation, droplet or aerosol exposure of mucous membranes or if broken skin is exposed to infectious fluids or tissues.

All people should avoid contact, but young children, pregnant women, individuals with immune deficiencies or those on steroids should avoid contact with this vaccine.

5 Fire fighting measures

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Protective equipment:**
  Fire fighters should wear self-contained breathing apparatus and full protective equipment.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** No special measures required.
- **Measures for cleaning/collecting:**
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to section XIII.
  To clean spills or contamination use 1:30 dilution of household bleach.
- **Additional information:** No dangerous substances are released.

7 Handling and storage

- **Handling:**
  - **Information for safe handling:**
    Store in cool, dry place in tightly closed containers.
    Handle with care. Avoid jolting and impact.
  - **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
  - **Requirements to be met by storerooms and receptacles:** Store only in the original container.
  - **Further information about storage conditions:** Store in a cool, dry, well ventilated place.
  - **Recommended storage temperature:**
    35.6-44.6°F
    2-7°C
Trade name: RABORAL V-RG® with Bait

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- Personal protective equipment:
  - General protective and hygienic measures:
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
    Do not store food in the working area.
    Do not eat, drink or smoke in work areas.
    Do not inhale vaccine.
  - Protection of hands: Impervious gloves to minimize skin contact.
  - Eye protection: Goggles recommended during refilling.
  - Body protection: Light weight protective clothing

9 Physical and chemical properties

- General Information
  - Form:
    Solid
    Liquid
    Bait is a square fish-meal or dogfood/soy-meal polymer. Vaccine is a liquid.
  - Color:
    Red
    Bait is brownish. Vaccine is pink to red.
  - Odor:
    Recognizable
    Bait has the odor of fish-meal or dogfood. Vaccine is odorless.

- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: 100°C (212°F)

- Flash point: 200°C (392°F)

- Danger of explosion: Product does not present an explosion hazard.

- Specific gravity: Not determined.

- Solubility in / Miscibility with
  - Water: Fully miscible.
  - Organic solvents: 0.0 %

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Dangerous reactions: No dangerous reactions known.
- Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

- Acute toxicity:
- Primary irritant effect:
  - on the skin: Irritant to skin and mucous membranes.
  - on the eye: Irritating effect.
- Sensitization: Sensitizing effect by skin contact is possible with prolonged exposure.
Trade name: RABORAL V-RG® with Bait

- Other information (about experimental toxicology):
  TARGET ORGANS:
  Mucosal surfaces. Skin.
- Additional toxicological information:
  Danger through skin absorption.
  The substance is not subject to classification.

12 Ecological information

- Information about elimination (persistence and degradability):
- Other information: Viability of the virus varies with environmental conditions.
- General notes:
  Water hazard class 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- Product:
- Recommendation: Incinerate in EPA licensed Bio/Medical waste facility.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- DOT regulations:
  - Hazard class: -
- Land transport ADR/RID (cross-border):
  - ADR/RID class: -
- Maritime transport IMDG:
  - IMDG Class: -
  - Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
  - ICAO/IATA Class: -

15 Regulations

- Sara
  - Section 355 (extremely hazardous substances):
    Substance is not listed.
  - Section 313 (Specific toxic chemical listings):
    Substance is not listed.
- TSCA (Toxic Substances Control Act):
  Substance is not listed.
- CA Proposition 65
  - Chemicals known to cause cancer:
    Substance is not listed.
Material Safety Data Sheet
ISO/DIS 11014 / 29 CFR 1910.1200 / ANSI Z400.1

Printing date 04/15/2005 Reviewed on 04/11/2005

<table>
<thead>
<tr>
<th>Trade name: RABORAL V-RG® with Bait</th>
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<tbody>
<tr>
<td>• Chemicals known to cause reproductive toxicity:</td>
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<td>Substance is not listed.</td>
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<td>• Cancerogenity categories</td>
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<td>• EPA (Environmental Protection Agency)</td>
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<td>• IARC (International Agency for Research on Cancer)</td>
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<td>• NTP (National Toxicology Program)</td>
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<td>• TLV (Threshold Limit Value established by ACGIH)</td>
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<td>• MAK (German Maximum Workplace Concentration)</td>
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<tr>
<td>• NIOSH-Ca (National Institute for Occupational Safety and Health)</td>
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<tr>
<td>• OSHA-Ca (Occupational Safety &amp; Health Administration)</td>
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<td>Substance is not listed.</td>
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<td>• Product related hazard informations:</td>
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<tr>
<td>The substance is not subject to classification according to the sources of literature known to us.</td>
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<tr>
<td>Observe the general safety regulations when handling chemicals.</td>
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<td>• Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.</td>
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</table>

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Contact: MSDS Coordinator, msds@merial.com