**Identification of substance**

- **Product details**
  - **Trade name:** Escherichia Coli Bacterin-Toxoid
  - **J-VAC**
  - **Item number:** 2688, 2689, 2690, 3688, 3689, 5688, 2691, 2698
  - **Manufacturer/Supplier:**
    - Merial Limited
    - 3239 Satellite Blvd.
    - Duluth, Ga. 30096-4640
    - 1-888-MERIAL 1 (1-888-637-4251)
  - **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.

**Composition/Data on components**

- **Chemical characterization**
  - **Description:** Mixture: consisting of the following components.

<table>
<thead>
<tr>
<th>Components</th>
<th>99.9 %</th>
<th>0.1 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non hazardous inert ingredients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54-64-8 Thimerosal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Vaccine components** This product is a vaccine (biological) for use in cattle.

  - **Liquid component contains:**
    - Escherichia Coli

**Hazards identification**

- **Hazard description:** Not applicable.
- **Classification system:**
  - The classification was made according to the latest editions of international substances lists, and from company and regulatory data.
- **NFPA ratings (scale 0 - 4)**
  - Health = 0
  - Fire = 0
  - Reactivity = 0
Material Safety Data Sheet
ISO/DIS 11014 / 29 CFR 1910.1200 / ANSI Z400.1

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- HMIS-ratings (scale 0 - 4)
  - HEALTH Health = 0
  - 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.
- 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.

5 Fire fighting measures

- Suitable extinguishing agents: Use water spray or all purpose dry chemical.
- 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:
  - Do not allow product to reach sewage system or any water course.
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose of 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: Handle with care. Avoid jolting and impact.
  - Store at 2-7C (35-45F)

- 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.
  - Information about storage in one common storage facility: Not required.
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- Further information about storage conditions:  
  - Recommended storage temperature:  
    35-45°F (2-7°C)  
    CAUTION: Do not freeze

### 8 Exposure controls and personal protection

- Components with limit values that require monitoring at the workplace:  
  - 54-64-8 Thimerosal (.1%)  
    REL (USA): See Mercury, Aryl  
    TLV (USA): See Mercury, Aryl

- 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 eat, drink, smoke or inhale.  
    Do not store food in the working area.  
  - Protection of hands: Not required under normal conditions of use.  
  - Eye protection: Safety goggles.

### 9 Physical and chemical properties

- General Information  
  - Form: Liquid  
  - Color: Clear  
  - Odor: Slight or no odor

- Change in condition  
  - Melting point/Melting range: Undetermined.  
  - Boiling point/Boiling range: Undetermined.

- Flash point: Not applicable.

- Auto igniting: Product is not self-igniting.

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

- Specific gravity: Not determined.

- Solubility in / Miscibility with Water: Fully miscible.

- Solvent content:  
  - Organic solvents: 0.0 %  
  - Solids content: 0.1 %
Material Safety Data Sheet
ISO/DIS 11014 / 29 CFR 1910.1200 / ANSI Z400.1

Printing date 10/24/2004 Reviewed on 10/24/2004

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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: No irritating effect known.
  - on the eye: No irritating effect known.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product is not subject to classification according to internally approved calculation methods for preparations.
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information

- 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 an EPA approved facility for the incineration of mercury.
- Waste disposal key:
  D009 - Waste MEDICINE, LIQUID, TOXIC, 6.1, UN1851, PGIII (Vaccines with thimerosal)
- Uncleaned packagings:
  Recommendation: Incinerate in an EPA approved facility for the incineration of mercury.
  Recommended cleansing agent: To clean spills or contamination use 1:30 dilution of household bleach.

14 Transport information

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

15 Regulations

- Sara
  - Section 355 (extremely hazardous substances):
    None of the ingredients are listed.
  - Section 313 (Specific toxic chemical listings):
    None of the ingredients are listed.
  - TSCA (Toxic Substances Control Act):
    54-64-8 Thimerosal
  - CA Proposition 65
    - Chemicals known to cause cancer:
      None of the ingredients are listed.
    - Chemicals known to cause reproductive toxicity:
      None of the ingredients are listed.

- Carcinogenesis potential categories
  - EPA (Environmental Protection Agency)
    None of the ingredients is listed.
  - IARC (International Agency for Research on Cancer)
    None of the ingredients is listed.
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    None of the ingredients is listed.
  - MAK (German Maximum Workplace Concentration)
    None of the ingredients is listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

- Product related hazard informations:
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations according to directives on hazardous materials.

- Safety phrases:
  29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point
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Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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.

- Department issuing MSDS: MSDS Coordinator
- Contact: MSDS Coordinator, msds@merial.com