SAFETY DATA SHEET

1. Identification

Product identifier: PESTIGARD® VACCINE

Other means of identification

Synonyms: Bovine Viral Diarrhea Vaccine, killed virus * Inactivated Bovine viral diarrhoea virus – Bega and Trangie strains in an aqueous medium

Recommended use of the chemical and restrictions on use

Recommended use: Veterinary vaccine

Restrictions on use: Not for human use

Details of manufacturer or importer

Company Name (AU): Zoetis Australia Pty Ltd
ABN 94 156 476 425
Level 6, 5 Rider Boulevard
Rhodes NSW 2138 AUSTRALIA

Tel: 1800 814 883
Fax: (02) 8876 0444
Email: productsupport.au@zoetis.com
Emergency Phone: 1800 814 883 (all hours)
Police and Fire Brigade: Dial 000
If ineffective: Dial Poisons Information Centre (13 1126 from anywhere in Australia)

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards: Not classified.
Health hazards: Not classified.
Environmental hazards: Not classified.

Label elements, including precautionary statements

Hazard symbol(s): None.
Signal word: None.
Hazard statement(s): The mixture does not meet the criteria for classification.
Precautionary statement(s)

Prevention: Observe good industrial hygiene practices.
Response: Wash hands after handling.
Storage: Store away from incompatible materials.
Disposal: Dispose of waste and residues in accordance with local authority requirements.

Other hazards which do not result in classification: None known.

Supplemental information: None.

3. Composition/information on ingredients

Mixture

<table>
<thead>
<tr>
<th>Identity of chemical ingredients</th>
<th>CAS number and other unique identifiers</th>
<th>Concentration of ingredients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thimerosal</td>
<td>54-64-8</td>
<td>0.01</td>
</tr>
<tr>
<td>Bovine Virus Diarrhea</td>
<td>Not assigned</td>
<td>*</td>
</tr>
</tbody>
</table>

Composition comments: *Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.
4. First-aid measures

Description of necessary first aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact
Rinse with water. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur.

Personal protection for first-aid responders
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Symptoms caused by exposure
Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort.

Medical attention and special treatment
Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire fighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Keep unnecessary personnel away.

For emergency responders
Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

7. Handling and storage

Precautions for safe handling
Avoid accidental injection. Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapour. Wash thoroughly after handling. When using, do not eat, drink or smoke. Wear personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Refrigeration recommended. 2 - 8°C (36 - 46°F). Do not freeze. Store in original tightly closed container. Keep away from heat, sparks and open flame. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls and personal protection

Control parameters
Follow standard monitoring procedures.
Occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thimerosal (CAS 54-64-8)</td>
<td>STEL</td>
<td>0.03 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.01 mg/m³</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
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</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

No exposure standards allocated.

US ACGIH Threshold Limit Values: Skin designation

| Thimerosal (CAS 54-64-8) | Can be absorbed through the skin. |

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection
Wear safety glasses or goggles if eye contact is possible.

Skin protection

Hand protection
Wear impervious gloves if skin contact is possible.

Other
Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.

Respiratory protection
No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards
Not applicable.

Hygiene measures
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
Aqueous solution.

Physical state
Liquid.

Form
Liquid.

Colour
Orange - Pink

Odour
Not available.

Odour threshold
Not available.

pH
Not available.

Melting point/freezing point
0 °C (32 °F) estimated

Initial boiling point and boiling range
100 °C (212 °F) estimated

Flash point
Not available.

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

Flammability limit - upper (%)
Not available.

Explosive limit - lower (%)
Not available.

Explosive limit – upper (%)
Not available.
Vapour pressure Not available.
Vapour density Not available.
Relative density Not available.
Solubility(ies) Not available.
Partition coefficient (n-octanol/water) Not available.
Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.
Other physical and chemical parameters
Explosive properties Not explosive.
Oxidising properties Not oxidising.

10. Stability and reactivity
Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
Conditions to avoid Contact with incompatible materials.
Incompatible materials Strong oxidising agents.
Hazardous decomposition products No hazardous decomposition products are known. May include products of carbon, nitrogen, metallic mercury.

11. Toxicological information
Information on possible routes of exposure
Inhalation No adverse effects due to inhalation are expected.
Skin contact No adverse effects due to skin contact are expected.
Eye contact Direct contact with eyes may cause temporary irritation.
Thimerosal Species: Rabbit
Severity: Mild

Ingestion Expected to be a low ingestion hazard.
Symptoms related to exposure Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort.

Acute toxicity
Components Species Test Results
Thimerosal (CAS 54-64-8)

<table>
<thead>
<tr>
<th>Acute</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>91 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>75 mg/kg</td>
</tr>
<tr>
<td>Subcutaneous</td>
<td>Rat</td>
<td>98 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.
Serious eye damage/irritation Direct contact with eyes may cause temporary irritation.
Eye contact Thimerosal Species: Rabbit
Severity: Mild

Respiratory or skin sensitisation
Respiratory sensitisation Not a respiratory sensitizer.
Skin sensitisation This product is not expected to cause skin sensitisation.
Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity: Due to partial or complete lack of data the classification is not possible.

Reproductive toxicity: This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure: Not classified.

Specific target organ toxicity - repeated exposure: Not classified.

Aspiration hazard: Not an aspiration hazard.

Other information: The antigens included in this product are non-infectious. All have been prepared from attenuated preparations of microorganisms.

12. Ecological information

Ecotoxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

Persistence and degradability: No data is available on the degradability of this product.

Bioaccumulative potential: No data available.

Mobility in soil: No data available for this product.

Other adverse effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods: Avoid release to the environment. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

Residual waste: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

14. Transport information

ADG: Not regulated as dangerous goods.

RID: Not regulated as dangerous goods.

IATA: Not regulated as dangerous goods.

IMDG: Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not established.

15. Regulatory information

Safety, health and environmental regulations: This Safety Data Sheet was prepared in accordance with the Australia Model Code of Practice for the preparation of safety data sheets for hazardous chemicals.

Poison Schedule (Product): Schedule 0

APVMA Approval No.: 53867
Australia Medicines & Poisons Appendix A  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix B  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix D  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix E  
Thimerosal (CAS 54-64-8)  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix F  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix G  
Thimerosal (CAS 54-64-8)  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix H  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix I  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix J  
Poisons schedule number not allocated.

Australia Medicines & Poisons Appendix K  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 10  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 2  
Thimerosal (CAS 54-64-8)  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 3  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 4  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 5  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 6  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 7  
Thimerosal (CAS 54-64-8)  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 8  
Poisons schedule number not allocated.

Australia Medicines & Poisons Schedule 9  
Poisons schedule number not allocated.

Australia National Pollutant Inventory (NPI): Threshold quantity
Thimerosal (CAS 54-64-8)  
5 kg Threshold Category: 1B

High Volume Industrial Chemicals (HVIC)
Not listed.

Importation of Ozone Deleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)
Not listed.

National Pollutant Inventory (NPI) substance reporting list
Thimerosal (CAS 54-64-8)  
2000 TONNES/YR Threshold Category: 2B

Prohibited Carcinogenic Substances
Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)
Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)
Not listed.

Restricted Carcinogenic Substances
Not regulated.

Material name: PESTIGARD® VACCINE
3293-ZA
International regulations

Stockholm Convention
- Not applicable.

Rotterdam Convention
- Thimerosal (CAS 54-64-8) Pesticide

Kyoto Protocol
- Not applicable.

Montreal Protocol
- Not applicable.

Basel Convention
- Not applicable.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

* A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 18-August-2016
Revision date 17-August-2021

Disclaimer
Zoetis Inc. believes that the information contained in this Safety Data Sheet is accurate, and while it is provided in good faith, it is without warranty of any kind, expressed or implied. If data for a hazard are not included in this document there is no known information at this time. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information
Identification: Restrictions on use
Regulatory information: National regulations