



SAFETY DATA SHEET

1. Identification

Product identifier	Titanium® 5 L5 HB
Other means of identification	
Item Code	AV4145
Synonyms	Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza3-Respiratory Syncytial Virus Vaccine (Modified Live Virus) Leptospira Canicola-Grippotyphosa-Hardjo-Icterohaemorrhagiae- Pomona Bacterin
Recommended use	Veterinary Vaccine
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
	Diamond Animal Health, Inc. Des Moines, Iowa 50327 USA
Distributor:	
Company Name	Elanco Animal Health 2500 Innovation Way Greenfield, IN 46140 USA
Phone:	1-877-Elanco1 (1-877-352-6261)
Emergency Telephone Numbers:	Elanco Product Technical Support / Human or Animal Exposure Reporting 1-888-545-5973 Transportation Emergency Telephone: CHEMTREC: 1-800-424-9300
Email:	elanco_sds@elanco.com

2. Hazard(s) identification

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified.
Label elements	
Hazard symbol	None.
Signal word	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statement	
Prevention	Not assigned.
Response	Not assigned.
Storage	Not assigned.
Disposal	Not assigned.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	In the event of accidental injection, an allergic reaction may occur.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
IBR-BVD-PI3-BRSV	Titanium® 5	N/A	*
Leptospira Canicola-Grippytyphosa-Hardjo-Icte rohaemorrhagiae-Pomona Bacterin	Lepto 5	N/A	*

Composition comments * The components are not hazardous or are below required disclosure limits.
This product contains 2 components.
Solid: (Titanium 5) Contains no preservatives.
Liquid: (Lepto 5) Contains thimerosal (0.001%) as a preservative.

4. First-aid measures

Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. IF exposed or concerned: Get medical advice/attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists.
Eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Ingestion	If conscious, give the victim plenty of water to drink. Never give anything by mouth to a victim who is unconscious or is having convulsions. Consult a physician.
Most important symptoms/effects, acute and delayed	In the event of accidental injection, an allergic reaction may occur.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	NOT FOR HUMAN USE!

5. Fire-fighting measures

Suitable extinguishing media	Water. Carbon dioxide (CO2). Dry chemical.
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Fire or excessive heat may produce hazardous decomposition products.
Special protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid contact with skin, eyes and clothing. Wear suitable protective clothing, gloves and eye/face protection.
Methods and materials for containment and cleaning up	Avoid the generation of dusts during clean-up. Clean contaminated surface thoroughly. Flush with plenty of water. Soak up with inert absorbent material. Transfer to a container for disposal. For waste disposal, see Section 13 of the SDS.
Environmental precautions	Avoid release to the environment.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Avoid breathing mists or aerosols of this product.
Conditions for safe storage, including any incompatibilities	Store at: 2 - 8 °C. Do not allow material to freeze. Do not store in open or unlabelled containers. Use entire contents when first opened.

8. Exposure controls/personal protection

Occupational exposure limits	This mixture has no ingredients that have PEL, TLV, or other recommended exposure limit.
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

Eye/face protection	Safety glasses with side-shields.
Skin protection	
Hand protection	Chemical resistant gloves.
Other	Chemical-resistant gloves and impermeable body covering to minimize skin contact.
Respiratory protection	In case of inadequate ventilation, use respiratory protection. (i.e. product breakage) Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the respirator. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor.
Thermal hazards	Not available.
General hygiene considerations	Wash hands after handling.

9. Physical and chemical properties

Appearance	Liquid in vial or syringe (Lepto 5) Dessicated solid in vial (Titanium 5)
Physical state	Solid, Liquid.
Form	Dessicated solid with diluent.
Color	No data available.
Odor	No data available.
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No test data available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	No data available.
Flammability limit - upper (%)	No data available.
Explosive limit - lower (%)	No data available.
Explosive limit - upper (%)	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	No data available.
Solubility(ies)	
Solubility (water)	No data available.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Other information	
Density	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.
Percent volatile	No data available.

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	Hazardous polymerization does not occur.
Conditions to avoid	Avoid high temperatures. Do not allow material to freeze.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions..

11. Toxicological information

Information on toxicological effects

Acute toxicity Based on the nature of this substance and the known health effects of the components, this preparation is considered unlikely to produce health effects through relevant routes of occupational exposures. In the event of accidental injection, an allergic reaction may occur.

Skin corrosion/irritation No data available.

Serious eye damage/eye irritation No data available.

Respiratory or skin sensitization

Respiratory sensitization No data available.

Skin sensitization No data available.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity No data available to indicate product or any components present at greater than 0.1% are carcinogenic.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity No data available.

Specific target organ toxicity - single exposure No data available.

Specific target organ toxicity - repeated exposure No data available.

Aspiration hazard No aspiration toxicity classification

Further information The active components of this vaccine are not considered to be pathogenic for healthy individuals even if inhaled, ingested or applied to the eyes or skin.

12. Ecological information

Ecotoxicity These materials have not been tested for environmental effects. Ecological injuries are not known or expected under normal use.

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

Bioaccumulative potential No data available for this product.

Mobility in soil No data available.

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Containers and unused contents should be burned under controlled conditions. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

14. Transport information

DOT

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 available.

15. Regulatory information

US federal regulations

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*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, including date of preparation or last revision

Issue date 02-26-2014

Revision date 09-06-2019

Version # 04

List of abbreviations IBR-BVD-PI3-BRSV: Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza3-Respiratory Syncytial Virus Vaccine (Modified Live Virus)

Disclaimer As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:
Elanco Animal Health
0011+1-877-352-6261
0011+1-800-428-4441