



SAFETY DATA SHEET

1. Identification

Product identifier	Titanium® 5
Other means of identification	
Item Code	AV4135
Synonyms	Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza3-Respiratory Syncytial Virus Vaccine (Modified Live Virus)
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

The manufacturer lists no ingredients as hazardous to health according to OSHA 29 CFR 1910.1200.

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 (CO ₂). 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 °F (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)
Thermal hazards	Not available.
General hygiene considerations	Wash hands after handling.

9. Physical and chemical properties

Appearance	Liquid in vial or syringe (Sterile diluent) Dessicated solid in vial (Titanium 5)
Physical state	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	Not explosive.
Oxidizing properties	The substance or mixture is not classified as oxidizing.
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.
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Skin corrosion/irritation	Due to lack of data the classification is not possible.
Serious eye damage/eye irritation	Due to lack of data the classification is not possible.
Respiratory or skin sensitization	
Respiratory sensitization	Due to lack of data the classification is not possible.
Skin sensitization	Due to lack of data the classification is not possible.
Germ cell mutagenicity	Due to lack of data the classification is not possible.
Carcinogenicity	No ingredients present at 0.1% (one-tenth percent) or greater are listed by IARC, NTP, ACGIH, or OSHA. Due to lack of data the classification is not possible.

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	Due to lack of data the classification is not possible.
Specific target organ toxicity - single exposure	Due to lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure	Due to lack of data the classification is not possible.
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	The environmental characteristics of this material have not been fully evaluated. 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	Dispose of contents/container in accordance with local/regional/national/international regulations.
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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** 03-29-2019**Version #** 05**List of abbreviations** IBR-BVD-PI3-BRSV: Bovine Rhinotracheitis-Virus Diarrhea-Parainfluenza3-Respiratory Syncytial Virus Vaccine (Modified Live Virus)

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