

Revision date: 02-Oct-2013

Version: 2.0

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Identifier

Material Name: Infectious Bursal Disease (IBD) (Intermediate Plus) vaccine (Live virus)

Trade Name: Synonyms: Chemical Family: BURSINE PLUS Poulvac Bursine Plus; Bursal Disease Vaccine, Live Virus Mixture

 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

 Intended Use:
 Poultry Vaccine

 Restrictions on Use:
 Not for human use

Details of the Supplier of the Safety Data Sheet

Zoetis Inc. 100 Campus Drive, P.O. Box 651 Florham Park, New Jersey 07932 (USA) Rocky Mountain Poison Control Center Phone: 1-866-531-8896 Product Support/Technical Services Phone: 1-800-366-5288

Emergency telephone number: CHEMTREC (24 hours): 1-800-424-9300 Contact E-Mail: VMIPSrecords@zoetis.com Zoetis Belgium S.A. Mercuriusstraat 20 1930 Zaventem Belgium

Emergency telephone number: International CHEMTREC (24 hours): +1-703-527-3887

2. HAZARDS IDENTIFICATION

Pale Yellow to Reddish white powder

Classification of the Substance or Mixture GHS - Classification Not classified as hazardous

EU Classification:

EU Indication of danger: Not classified

Label Elements

Signal Word:

Not Classified

Hazard Statements:

Australian Hazard Classification

Non-hazardous in accordance with international standards for workplace safety.

Other Hazards Short Term:

In the event of accidental injection, an allergic reaction may occur. If an allergic reaction occurs, the worker should be removed to the nearest emergency room and the appropriate therapy instituted. Non-Hazardous Substance. Non-Dangerous Goods.

(NOHSC):

Material Name: Infectious Bursal Disease (IBD) (Intermediate Plus) vaccine (Live virus) Revision date: 02-Oct-2013

Page 2 of 7

Version: 2.0

Note:

This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

| Ingredient | CAS Number | EU EINECS/ELINCS List | EU Classification | GHS Classification | % |
|------------|------------|-----------------------------|-------------------|-----------------------|----|
| Gentamicin | 1403-66-3 | 215-765-8 | Not Listed | Not Listed | ## |

| Ingredient | CAS Number | EU EINECS/ELINCS List | EU Classification | GHS Classification | % |
|---------------------------------|--------------|-----------------------------|-------------------|-----------------------|---|
| Infectious bursal disease virus | Not assigned | Not Listed | Not Listed | Not Listed | * |

Additional Information:

Trace * Proprietary

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact: Immediately flush eyes with water for at least 15 minutes. If irritation occurs or persists, get medical attention.

Skin Contact: Wash skin with soap and water. If irritation occurs or persists, get medical attention.

- Ingestion: Get medical attention. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.
- Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of No data available Exposure: **Medical Conditions** None known Aggravated by Exposure:

Indication of the Immediate Medical Attention and Special Treatment Needed None

Notes to Physician:

5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Extinguish fires with CO2, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture

Fine particles (such as dust and mists) may fuel fires/explosions.

Material Name: Infectious Bursal Disease (IBD) (Intermediate Plus) vaccine (Live virus) Revision date: 02-Oct-2013

Page 3 of 7

Version: 2.0

| Hazardous Combustion | Formation of toxic gases is possible during heating or fire. |
|----------------------|--|
| Products: | |

Fire / Explosion Hazards:

Advice for Fire-Fighters

During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Environmental Precautions

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Methods and Material for Containment and Cleaning Up

| Measures for Cleaning / Collecting: | Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly. |
|---|--|
| Additional Consideration for Large Spills: | Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel. |

7. HANDLING AND STORAGE

Precautions for Safe Handling

Ground and bond all bulk transfer equipment. Avoid open handling. Minimize dust generation. Use local exhaust ventilation or perform work under hood/fume cupboard. Avoid inhalation and contact with skin, eyes, and clothing. When handling, use appropriate personal protective equipment (see Section 8). Releases to the environment should be avoided.

Conditions for Safe Storage, Including any Incompatibilities Storage Conditions: Store as directed by pro

| Storage Conditions: | Store as directed by product packaging. |
|-------------------------|---|
| Incompatible Materials: | None known |
| Specific end use(s): | No data available |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

Gentamicin

Bulgaria OEL - TWA

0.1 mg/m³

The purpose of the Occupational Exposure Band (OEB) classification system is to separate substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to revision when new information becomes available.

Gentamicin

Zoetis OEB

OEB 2 (control exposure to the range of 100ug/m³ to < 1000ug/m³)

Exposure Controls Engineering Controls:

General room ventilation is adequate unless the process generates dust, mist or fumes.

Material Name: Infectious Bursal Disease (IBD) (Intermediate Plus) vaccine (Live virus) Revision date: 02-Oct-2013

Page 4 of 7

Version: 2.0

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Personal Protective | Refer to applicable national standards and regulations in the selection and use of personal |
|-------------------------|---|
| Equipment: | protective equipment (PPE). |
| | |
| Hands: | Impervious gloves are recommended if skin contact with drug product is possible and for bulk |
| | processing operations. |
| Eyes: | Glasses or goggles are recommended if eye contact is possible. |
| Skin: | Impervious disposable protective clothing is recommended if skin contact with drug product is |
| | possible and for bulk processing operations. |
| Respiratory protection: | If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate |
| | respirator with a protection factor sufficient to control exposures to below the OEL |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical State: Odor: Molecular Formula: | Powder No data available. Mixture | Color: Odor Threshold: Molecular Weight: | Pale yellow to Reddish white No data available. Mixture |
|--|--|--|--|
| Solvent Solubility: Water Solubility: pH: Melting/Freezing Point (°C): Boiling Point (°C): Partition Coefficient: (Method, pH, E No data available | No data available 100% No data available. No data available No data available. ndpoint, Value) | | |
| Decomposition Temperature (°C): | No data available. | | |
| Evaporation Rate (Gram/s): | No data available | | |
| Vapor Pressure (kPa): Vapor Density (g/ml): | No data available No data available | | |
| Relative Density: | No data available | | |
| Viscosity: | No data available | | |
| Flammablity: | | | |
| Autoignition Temperature (So | lid) (°C): | No data available | |
| Flammability (Solids): | | No data available | |
| Flash Point (Liquid) (°C): | | No data available | |
| Upper Explosive Limits (Liquid) (% by Vol.): | | No data available | |
| Lower Explosive Limits (Liqui | d) (% by Vol.): | No data available | |

10. STABILITY AND REACTIVITY

| Reactivity: | Ν |
|------------------------------------|---|
| Chemical Stability: | S |
| Possibility of Hazardous Reactions | |
| Oxidizing Properties: | ۱ |
| Conditions to Avoid: | E |
| Incompatible Materials: | ۱ |
| Hazardous Decomposition | N |
| Products: | |
| | |

No data available Stable under normal conditions of use.

No data available Do not freeze. None known None expected under normal conditions. Material Name: Infectious Bursal Disease (IBD) (Intermediate Plus) vaccine (Live virus) Revision date: 02-Oct-2013 Page 5 of 7

Version: 2.0

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects General Information:

Toxicological properties of the formulation have not been investigated. The information included in this section describes the potential hazards of the individual ingredients. The antigens included in this product are non-infectious. All have been prepared from attenuated preparations of microorganisms.

Acute Toxicity: (Species, Route, End Point, Dose)

Gentamicin

RatOralLD506600 mg/kgRatSubcutaneousLD50710mg/kgMouseIMLD50167 mg/kgRatIMLD50463 mg/kg

Irritation / Sensitization: (Study Type, Species, Severity)

Gentamicin

Eye Irritation Rabbit Non-irritating

Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

| Gentamicin Embryo / Fetal Development | Rat | Intramuscular | 75 mg/kg/day | LOAEL | Developmental toxicity |
|---|-----|-----------------|---------------------|----------------------|---|
| Carcinogen Status: | | None of the cor | nponents of this fo | rmu l ation a | re listed as a carcinogen by IARC, NTP or OSHA. |

12. ECOLOGICAL INFORMATION

| Environmental Overview: | The environmental characteristics of this material have not been fully evaluated. Releases to the environment should be avoided. |
|--------------------------------|--|
| Toxicity: | No data available |
| Persistence and Degradability: | No data available |
| Bio-accumulative Potential: | No data available |
| Mobility in Soil: | No data available |

Material Name: Infectious Bursal Disease (IBD) (Intermediate Plus) vaccine (Live virus) Revision date: 02-Oct-2013 Page 6 of 7

Version: 2.0

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods:

Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada - WHMIS: Classifications

WHMIS hazard class:

None required

. . . .

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

| Gentamicin | |
|-------------------------------------|------------|
| CERCLA/SARA 313 Emission reporting | Not Listed |
| California Proposition 65 | Not Listed |
| Australia (AICS): | Present |
| Standard for the Uniform Scheduling | Schedule 4 |
| for Drugs and Poisons: | |
| EU EINECS/ELINCS List | 215-765-8 |
| Infectious bursal disease virus | |
| CERCLA/SARA 313 Emission reporting | Not Listed |
| California Proposition 65 | Not Listed |
| EU EINECS/ELINCS List | Not Listed |
| | |

16. OTHER INFORMATION

Data Sources:

The data contained in this MSDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

ĺ

Material Name: Infectious Bursal Disease (IBD) (Intermediate Plus) vaccine (Live virus) Revision date: 02-Oct-2013 Page 7 of 7

Version: 2.0

| Reasons for Revision: | Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking. Updated Section 2 - Hazard Identification. Updated Section 8 - Exposure Controls / Personal Protection. |
|------------------------------------|--|
| Prepared by: | Toxicology and Hazard Communication Zoetis Global Risk Management |
| Zaatia Ina, baliawaa that tha infa | rmation contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it |

Zoetis Inc. believes that the information contained in this Material 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.

End of Safety Data Sheet