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

Product Identifier

Material Name: Firstdose® CV

Trade Name: VANGUARD CV; FIRSTDOSE CV

Synonyms: Canine Coronavirus Vaccine, Killed Virus, single dose

Chemical Family: Mixture

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

Intended Use: Veterinary 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)

Zoetis Belgium S.A.

Mercuriusstraat 20
1930 Zaventem

Rocky Mountain Poison and Drug Center Phone: 1-866-531-8896 Belgium

Product Support/Technical Services Phone: 1-800-366-5288

Emergency telephone number: Emergency telephone number:

Contact E-Mail: VMIPSrecords@zoetis.com

2. HAZARDS IDENTIFICATION

Appearance: Liquid solution

Classification of the Substance or Mixture

GHS - Classification Not classified as hazardous

EU Classification:

EU Indication of danger: Not classified

Label Elements

Hazard Statements: 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. Signs and symptoms might

include skin rash, itching, redness or swelling. Respiratory reactions may be characterized by rhinitis, sneezing, scratchy throat, oral mucosal edema, laryngeal mucosal edema, coughing, shortness of breath, wheezing, and chest pain. Asthma like reactions occur with acute exposures in sensitized patients. If an allergic reaction occurs, the worker should be removed

to the nearest emergency room and the appropriate therapy instituted.

Long Term: Repeated exposure to dust or mist may produce allergic reactions.

Australian Hazard Classification

(NOHSC):

Non-Hazardous Substance. Non-Dangerous Goods.

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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	EU Classification	GHS Classification	%
		List			
Canine Coronavirus	NOT ASSIGNED	Not Listed	Not Listed	Not Listed	*
Non-hazardous ingredients	NOT APPLICABLE	Not Listed	Not Listed	Not Listed	*
Appropriate cell substrates	NOT ASSIGNED	Not Listed	Not Listed	Not Listed	*
Purified water	7732-18-5	231-791-2	Not Listed	Not Listed	>90

Additional Information: ## Trace

* Proprietary

Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety. In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of First Aid Measures

Eye Contact: Flush with water while holding eyelids open for at least 15 minutes. Seek medical attention

immediately.

Skin Contact: Remove contaminated clothing. Flush area with large amounts of water. Use soap. Seek

medical attention.

Ingestion: Never give anything by mouth to an unconscious person. Wash out mouth with water. Do not

induce vomiting unless directed by medical personnel. Seek medical attention immediately.

Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of

For information on potential signs and symptoms of exposure, See Section 2 - Hazards

Identification and/or Section 11 - Toxicological Information.

Medical Conditions

Exposure:

None known

Aggravated by Exposure:

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician: None

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Use carbon dioxide, dry chemical, or water spray.

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Special Hazards Arising from the Substance or Mixture

Hazardous Combustion Formation of toxic gases is possible during heating or fire.

Products:

Fine particles (such as dust and mists) may fuel fires/explosions. Fire / Explosion Hazards:

Advice for Fire-Fighters

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

Additional Information: This material is not expected to support combustion.

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 / Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill

Collecting: area thoroughly.

Additional Consideration for

Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel. Large Spills:

7. HANDLING AND STORAGE

Precautions for Safe Handling

When handling, use appropriate personal protective equipment (see Section 8). Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Avoid accidental injection. Wash thoroughly after handling. Releases to the environment should be avoided.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store as directed by product packaging.

2-7°C. Do not freeze. Storage Temperature:

This material can be denatured or inactivated by a variety of organic solvents, salts or heavy Incompatible Materials:

metals.

No data available Specific end use(s):

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)

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Controls

Engineering Controls: Engineering controls should be used as the primary means to control exposures. Keep air

> contamination levels below the exposure limits or within the OEB range listed above in this section. General room ventilation is adequate unless the process generates dust, mist or

fumes.

Personal Protective

Equipment:

Refer to applicable national standards and regulations in the selection and use of personal

protective equipment (PPE).

Hands: Impervious gloves are recommended if skin contact with drug product is possible and for bulk

processing operations.

Eves: Wear safety glasses or goggles if eye contact is possible.

Impervious protective clothing is recommended if skin contact with drug product is possible and Skin:

for bulk processing operations.

None required under normal conditions of use. Whenever excessive air contamination (dust, Respiratory protection:

mist, vapor) is generated, respiratory protection, with appropriate protection factors, should be

used to minimize exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid Color: No data available. No data available. No data available. Odor: Odor Threshold:

Molecular Formula: Mixture Molecular Weight: Mixture

Solvent Solubility: No data available Water Solubility: No data available

Soluble: Water (based on components) Solubility:

No data available. pH: Melting/Freezing Point (°C): No data available **Boiling Point (°C):** No data available. Partition Coefficient: (Method, pH, Endpoint, Value)

No data available

Decomposition Temperature (°C): No data available.

Evaporation Rate (Gram/s): No data available Vapor Pressure (kPa): No data available No data available Vapor Density (g/ml): **Relative Density:** No data available Viscosity: No data available

Flammablity:

Autoignition Temperature (Solid) (°C): No data available Flammability (Solids): No data available Flash Point (Liquid) (°C): Non-flammable Upper Explosive Limits (Liquid) (% by Vol.): No data available Lower Explosive Limits (Liquid) (% by Vol.): No data available Polymerization: Not expected to occur

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use.

Possibility of Hazardous Reactions

10000396

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10. STABILITY AND REACTIVITY

Oxidizing Properties: No data available

Conditions to Avoid: Store at 2-7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do

not freeze.

Incompatible Materials: This material can be denatured or inactivated by a variety of organic solvents, salts or heavy

metals.

Hazardous Decomposition

Products:

None expected under normal conditions.

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

General Information:

Toxicological properties of the formulation have not been investigated. The information in this section describes the potential hazards of the individual ingredients and the formulation. The antigens included in this product are non-infectious. All have been prepared from killed or inactivated preparations of microorganisms. Routes of exposure: eye contact, skin contact

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

Gentamicin

Rat Oral LD50 6600 mg/kg Rat Subcutaneous LD50 710mg/kg Mouse IM LD50 167 mg/kg Rat IM LD50 463 mg/kg

Inhalation Acute ToxicityAllergic reactions might occur based on effects of the individual components.

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

Gentamicin

Eye Irritation Rabbit Non-irritating

Skin Irritation / Sensitization May cause allergic reactions in susceptible individuals.

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 components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

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12. ECOLOGICAL INFORMATION

Environmental Overview: Environmental properties of the formulation have not been investigated. 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

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:

Non-controlled

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

Canine Coronavirus

CERCLA/SARA 313 Emission reporting

Not Listed
California Proposition 65

Not Listed

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15. REGULATORY INFORMATION

EU EINECS/ELINCS List Not Listed

Non-hazardous ingredients

CERCLA/SARA 313 Emission reporting Not Listed California Proposition 65 Not Listed **EU EINECS/ELINCS List** Not Listed

Appropriate cell substrates

CERCLA/SARA 313 Emission reporting Not Listed **California Proposition 65** Not Listed **EU EINECS/ELINCS List** Not Listed

Purified water

CERCLA/SARA 313 Emission reporting Not Listed Not Listed **California Proposition 65** Inventory - United States TSCA - Sect. 8(b) Present Australia (AICS): Present **REACH - Annex IV - Exemptions from the** Present obligations of Register:

EU EINECS/ELINCS List

231-791-2

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

16. OTHER INFORMATION

The data contained in this SDS may have been gathered from confidential internal sources, **Data Sources:**

raw material suppliers, or from the published literature.

Reasons for Revision: Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking.

Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on

Ingredients. Updated Section 11 - Toxicology Information.

Toxicology and Hazard Communication Prepared by:

Zoetis Global Risk Management

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.

End of Safety Data Sheet