

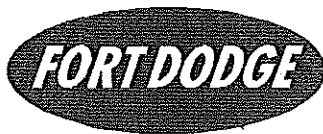
SAFETY DATA SHEETS

This SDS packet was issued with item:

078038553

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

078036884 078038546 078413725



MATERIAL SAFETY DATA SHEET

Product Id: Fluvac Innovator

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Code: RM1000209

Product Name: Fluvac Innovator

Supplier: Fort Dodge Animal Health
800 5th Street NW
PO Box 518
Fort Dodge, IA 50501

General Information No.: (515) 955-4600
Emergency Telephone No.: (515) 955-6033

Emergency Telephone Number: (800) 424-9300

General Telephone Number: (515) 955-4600

Prepared By: Environmental, Health + Safety

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	Weight %	ACGIH TWA:	CAS-No.	Wyeth OEG:	Units for TWAs, STELs, ACGIH, OSHA:
Killed Virus A100001	Unknown	None	NA	Not Established	mg/m3
Adjuvant A100002	Trade Secret	None	NA	Not Established	mg/m3
Contains Thimerosal, Neomycin, and Polymyxin B as preservatives Various	<0.01%	None	Not applicable	Not Established	mg/m3

3. HAZARDS IDENTIFICATION

Inhalation: None

Skin Contact: None known

Ingestion: Not considered to be toxic for humans.

Eye Contact: May cause eye irritation. Rinse immediately with plenty of water, also under the

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eyelids, for at least 15 minutes. Seek medical attention.

4. FIRST AID MEASURES

Eye Contact:	May cause eye irritation. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention.
Skin Contact:	No known effect. After contact with skin, wash immediately with plenty of water.
Inhalation:	No specific data. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Ingestion:	If ingested, seek medical advice immediately and show the container or the label.
Aggravated Conditions:	None known.
Notes to Physician:	For self-inoculation, immediately wash injection site with soap and water. Bleeding, if present, from the puncture wound should be encouraged. Direct treatment at control of symptoms.

5. FIRE FIGHTING MEASURES

Extinguishing Media and Fire Fighting Instructions:	Aqueous solutions are non-flammable. Use DRY chemicals, CO2, water spray or alcohol foam.
Special Hazards:	None. Dispose of fire debris and contaminated fire fighting water in accordance with regulations.
Personal Protective Equipment:	Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Methods For Cleaning Up:	Absorb with an inert material and place in an appropriate waste disposal container. Call for assistance on disposal.
Personal Precautions:	Put on appropriate personal protective equipment (see Section 8).
Environmental Precautions:	Keep out of waterways.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:	No special technical measures required when product is used as directed on label or package insert.
Safe Handling Advice:	No special precautions required.

Storage

Technical Measures/Storage Conditions:	Keep only in original container. Keep at temperature not exceeding 7°C. Keep out of the reach of children.
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Incompatible Products: No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures: No special measures required.

Personal Protective Equipment

Respiratory Protection: A respirator is not needed under normal and intended conditions of product use.

Hand Protection: Latex gloves

Skin and Body Protection: Gloves, Latex. Wear overalls or long sleeved shirt and long trousers.

Eye Protection: Safety glasses

Hygiene Measures: Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Pale Yellow to Reddish-white
Odor:	Odorless
pH:	6 - 8
Boiling Point/Range:	Not determined
Melting Point/Range:	not determined
Density:	Not determined
Vapor Density:	not determined
Physical State:	Opaque Liquid
Vapor Pressure:	not determined
Viscosity	Not determined
Partition Coefficient:	Not applicable
Solubility:	Easily soluble in cold water, hot water.
Solubility in Other Solvents:	None known
Flash Point:	Not applicable
Explosion limits	
- upper	no data available
- lower	no data available
Autoignition Temperature:	Not applicable
Decomposition Temperature:	Not applicable
Dust Explosivity	Not applicable.

10. STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: This product is stable.

Materials to Avoid: None

Polymerization: None known

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Hazardous Decomposition Products: None

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

LC₅₀/inhalation/rat = not determined

Principle Routes of Exposure: None

Eye Contact: May cause eye irritation. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention.

Skin Contact: Harmful in contact with skin.

Ingestion: Not considered to be toxic for humans.

Inhalation: not determined

Chronic Toxicity:

Target Organs: None

Specific Effects: Not determined

Sensitization: Not known to be a skin sensitizer.

Carcinogenic Effects: There are no known effects from chronic exposure to this product. No evidence of human carcinogenic effects.

Mutagenic Effects: Adverse health effects are considered unlikely when the product is administered according to label directions.

Teratogenic Effects: No evidence of risk in humans. No known human teratogenic effect.

Reproductive Toxicity: Not considered to be toxic for the reproductive system.

Aggravated Conditions: None known.

12. ECOLOGICAL INFORMATION

Environmental Fate: Not evaluated. No known significant effects or critical hazards.

Environmental Hazards: Releases of small quantities are unlikely to affect adversely the functioning of water treatment plants.

Ecotoxicity Effects: This product has no known eco-toxicological effects.

Aquatic Toxicity: Not determined.

Mobility: No data available

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Bioaccumulation: Not determined

Environmental Precautions: Keep out of waterways.

13. DISPOSAL CONSIDERATIONS

Waste/Unused Products: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Contaminated Packaging: Not applicable

14. TRANSPORT INFORMATION

DOT (Road/Rail Transport)

UN/ID Number: Not controlled.

Proper Shipping Name: Not controlled.

Hazard Class: Not controlled.

Packing Group: Not controlled.

DOT Reportable Quantity (lbs): Not controlled.

Marine Pollutant: Not controlled

ICAO/IATA (Air Transport):

UN/ID Number: Not controlled.

Proper Shipping Name: Not controlled.

Hazard Class: Not controlled.

Packing Group: Not controlled.

IMO/IMDG (Maritime Transport):

UN/ID Number: Not controlled.

Proper Shipping Name: Not controlled.

Hazard Class: Not controlled.

Packing Group: Not controlled.

15. REGULATORY INFORMATION

Indication of Danger: Not controlled

Other Regulations: Not controlled

16. OTHER INFORMATION

Additional Advice: Use this product only in accordance with the directions provided on the product label or the package insert.

The information provided in this MSDS is based on current knowledge. However, this does not constitute a warranty by the Company for that information. The product user is responsible for the appropriate and intended handling, use, and disposal of this product in accordance with label or package insert precautions and this information. All materials may present unknown hazards and should be

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used with caution.

*** End of Safety Data Sheet ***

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

Product Identifier

Material Name: Fluvac Innovator

Trade Name: Fluvac
Chemical Family: Mixture

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

Intended Use: Veterinary Vaccine

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

Zoetis Belgium S.A.
Mercuriusstraat 20
1930 Zaventem
Belgium

Emergency telephone number:
CHEMTREC (24 hours): 1-800-424-9300
Contact E-Mail: VMIPSrecords@zoetis.com

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

2. HAZARDS IDENTIFICATION

Appearance: Pale Yellow to Reddish-White opaque liquid

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: Not classified in accordance with international standards for workplace safety.

Other Hazards

Short Term: May cause eye irritation. 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.
Australian Hazard Classification (NOHSC): Non-Hazardous Substance. Non-Dangerous Goods.

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

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Neomycin B	119-04-0	204-292-2	Xn;R22 Xn;R42/43 Repr.Cat.3;R63	Acute Tox. 4;H302 Resp. Sens. 1;H334 Skin Sens.1;H317 Repr.2;H361	##
Polymyxin B	1404-26-8	215-768-4	Xn;R22 Xn;R42/43	Acute Tox. 4 (H302) Skin Sens. 1 (H317) Resp Sens. 1 (H334)	##
Thimerosal	54-64-8	200-210-4	T+; R26/27/28; R33 N; R50/53	Acute Tox. 2 (H300) Acute Tox. 1 (H310) STOT RE 2 (H373) Acute Tox. 2 (H330) Acute Aquatic 1 (H400) Chronic Aquatic 1 (H410)	##

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Equine Influenza Virus, Killed Virus	NOT ASSIGNED	Not Listed	Not Listed	Not Listed	*
Adjuvant	NA	Not Listed	Not Listed	Not Listed	*

Additional Information:

* Proprietary

Trace

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

For the full text of the R phrases and CLP/GHS abbreviations mentioned in this Section, see Section 16

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.

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Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms and Effects of Exposure:	For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.
Medical Conditions Aggravated by Exposure:	None known

Indication of the Immediate Medical Attention and Special Treatment Needed

Notes to Physician: None

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Extinguish fires with CO₂, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture

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

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

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 the spill if it is safe to do so. Wipe up with a damp cloth and place in container for disposal. Clean contaminated surface 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

Use only in well-ventilated areas. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Prevent environmental releases. Use appropriate personal protective equipment. Avoid accidental injection.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store at room temperature in properly labeled containers. Keep away from heat, sparks and flames.

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.

Neomycin B

Zoetis OEL TWA 8-hr

100µg/m³Sensitizer

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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.

Polymyxin B

Zoetis OEB

OEB 2 - Sensitizer (control exposure to the range of 100ug/m³ to < 1000ug/m³, provide additional precautions to protect from skin contact)

Exposure Controls

Engineering Controls:

Engineering controls should be used as the primary means to control exposures. Keep airborne contamination levels below the exposure limits 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:

Wear impervious gloves if skin contact is possible.

Eyes:

Safety glasses or goggles

Skin:

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

Respiratory protection:

If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear an appropriate respirator with a protection factor sufficient to control exposures to the bottom of the OEB range.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:

Liquid

Color:

Pale yellow to reddish-white

Odor:

Odorless

Odor Threshold:

No data available.

Molecular Formula:

Mixture

Molecular Weight:

Mixture

Solvent Solubility:

No data available

Water Solubility:

Soluble

pH:

6-8

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

Vapor Density (g/ml):

No data available

Relative Density:

No data available

Viscosity:

No data available

Flammability:

Autoignition Temperature (Solid) (°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 (Liquid) (% by Vol.):

No data available

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10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions of use.
Possibility of Hazardous Reactions	
Oxidizing Properties:	No data available
Conditions to Avoid:	Fine particles (such as dust and mists) may fuel fires/explosions.
Incompatible Materials:	As a precautionary measure, keep away from strong oxidizers
Hazardous Decomposition Products:	No data available

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

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

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

Thimerosal

Rat Oral LD50 75 mg/kg
Mouse Oral LD50 91 mg/kg
Rat Subcutaneous LD50 98mg/kg

Neomycin B

Rat Oral LD 50 1250 mg/kg
Mouse IV LD50 24mg/kg

Polymyxin B

Mouse Oral LD50 790 mg/kg
Mouse Para-periosteal LD50 3980ug/kg
Rat Subcutaneous LD50 50mg/kg

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

Thimerosal

Eye Irritation Rabbit Mild

Genetic Toxicity: (Study Type, Cell Type/Organism, Result)

Polymyxin B

In Vitro Negative
In Vivo Negative

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 have not been thoroughly investigated. This product contains trace quantities of mercury, 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. This product contains trace quantities of mercury and may qualify as a RCRA Hazardous Waste. Status should be confirmed using the EPA Toxicity Characteristic Leaching Procedure (TCLP).
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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

Neomycin B
CERCLA/SARA 313 Emission reporting
California Proposition 65

Not Listed
Not Listed

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15. REGULATORY INFORMATION

Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 4
EU EINECS/ELINCS List	204-292-2

Polymyxin B

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
EU EINECS/ELINCS List	215-768-4

Equine Influenza Virus, Killed Virus

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

Adjuvant

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

Thimerosal

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	200-210-4

16. OTHER INFORMATION

Text of R phrases and GHS Classification abbreviations mentioned in Section 3

H302 - Harmful if swallowed
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317 - May cause an allergic skin reaction
H361 - Suspected of damaging fertility or the unborn child
H300 - Fatal if swallowed
H310 - Fatal in contact with skin
H330 - Fatal if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Xn - Harmful
Toxic to Reproduction: Category 3
T+ - Very toxic
N - Dangerous for the environment

R22 - Harmful if swallowed.
R63 - Possible risk of harm to the unborn child.
R33 - Danger of cumulative effects.

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R42/43 - May cause sensitization by inhalation and skin contact.

R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed.

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Data Sources: The data contained in this MSDS may have been gathered from confidential internal 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 4 - First Aid Measures. Updated Section 6 - Accidental Release Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 9 - Physical and Chemical Properties. Updated Section 11 - Toxicology Information. Updated Section 12 - Ecological Information.

Prepared by: Toxicology and Hazard Communication
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