# This SDS packet was issued with item:

078929354

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

078413782 078929361

The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).

078038728 078038736



Version: 2.0 Revision date: 13-Feb-2014 Page 1 of 12

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

**Product Identifier** 

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western & Venezuelan, Killed Virus Tetanus Toxoid)

FLUVAC INNOVATOR 6 **Trade Name:** 

**Chemical Family:** Mixture

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

Veterinary Vaccine Intended Use:

**Details of the Supplier of the Safety Data Sheet** 

Zoetis Belgium S.A. Zoetis Inc. 100 Campus Drive, P.O. Box 651 Mercuriusstraat 20 Florham Park, New Jersey 07932 (USA) 1930 Zaventem Rocky Mountain Poison Control Center Phone: 1-866-531-8896 **Belgium** 

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

**Emergency telephone number:** 

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

CHEMTREC (24 hours): 1-800-424-9300

VMIPSrecords@zoetis.com Contact E-Mail:

# 2. HAZARDS IDENTIFICATION

Appearance: Pink suspension

Classification of the Substance or Mixture

**GHS - Classification** Not classified as hazardous

**EU Classification:** 

**Emergency telephone number:** 

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:** 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.

This document has been prepared in accordance with standards for workplace safety, which Note:

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.

Page 2 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

### **Hazardous**

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
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)	##
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)	##
Formaldehyde	50-00-0	200-001-8	T; R23/24/25 C; R34 Carc.Cat.3; R40 R43	Acute Tox. 3 (H301) Skin Corr. 1B (H314) Skin Sens. 1 (H317) Carc. 2 (H351) Acute Tox. 3 (H331)	<0.1

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Clostridium tetani - Massachusetts (Cl. tetani)	Not assigned	Not Listed	Not Listed	Not Listed	*
EASTERN EQUINE ENCEPHALOMYELITIS	Not Assigned	Not Listed	Not Listed	Not Listed	*
Equine Influenza Virus, Kentucky 97 (EIV)	Not Assigned	Not Listed	Not Listed	Not Listed	*
Phosphate Buffered Saline	Mixture	Not Listed	Not Listed	Not Listed	*
Poloxalene	9003-11-6	Not Listed	Not Listed	Not Listed	*
Equine Herpesvirus-I	Not Assigned	Not Listed	Not Listed	Not Listed	*
Equine Herpesvirus-4	Not Assigned	Not Listed	Not Listed	Not Listed	*
Polysorbate 80	9005-65-6	Not Listed	Not Listed	Not Listed	*
WESTERN EQUINE ENCEPHALOMYELITIS	Not Assigned	Not Listed	Not Listed	Not Listed	*
Neomycin Free Base	1404-04-2	215-766-3	Not Listed	Not Listed	*
Squalene	111-02-4	203-826-1	Not Listed	Not Listed	*

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

Additional Information: \* Proprietary

## Trace

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

Page 3 of 12

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.

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

**Exposure:** Identification and/or Section 11 - Toxicological Information.

Medical Conditions 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:** Extinguish fires with CO2, extinguishing powder, foam, or water.

Special Hazards Arising from the Substance or Mixture

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

**Products:** 

**Fine / 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**

PZ02059

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

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-

Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

Measures for Cleaning /

Collecting:

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

Page 4 of 12

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**

Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Releases to the environment should be avoided. Use appropriate personal protective equipment. Avoid accidental injection.

## Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Store as directed by product packaging.

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

metals.

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.

#### **Formaldehyde**

**ACGIH Ceiling Threshold Limit:** 0.3 ppm **ACGIH - Sensitizer Designation** Sensitizer **Australia STEL** 2 ppm 2.5 mg/m<sup>3</sup> Australia TWA 1 ppm 1.2 mg/m<sup>3</sup> **Austria OEL - MAKs** 0.5 ppm  $0.6 \text{ mg/m}^{3}$ **Bulgaria OEL - TWA** 1.0 mg/m<sup>3</sup> Czech Republic OEL - TWA  $0.5 \text{ mg/m}^{3}$ Estonia OEL - TWA 0.5 ppm

## 0.6 mg/m³

Finland OEL - TWA

0.3 ppm
0.37 mg/m³

France OEL - TWA

0.5 ppm

Germany (DFG) - MAK 0.5 ppm 0.3 ppm

0.37 mg/m³ no irritation should occur during mixed exposure

**Greece OEL - TWA**2 ppm
2.5 mg/m<sup>3</sup>

 Hungary OEL - TWA
 0.6 mg/m³

 Ireland OEL - TWAs
 2 ppm

 2.5 mg/m³
 2.5 mg/m³

Japan - OELs - Ceilings 0.2 ppm 0.24 mg/m³

 Latvia OEL - TWA
 0.5 mg/m³

 Lithuania OEL - TWA
 0.5 ppm

 0.6 mg/m³
 0.6 mg/m³

Netherlands OEL - TWA0.15 mg/m³Vietnam OEL - TWAs0.5 mg/m³

Page 5 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

0.75 ppm **OSHA - Final PELS - TWAs: OSHA - Specifically Regulated Chemicals** 2 ppm 0.5 ppm 0.75 ppm Poland OEL - TWA 0.5 mg/m<sup>3</sup> 1 ppm Romania OEL - TWA 1.20 mg/m<sup>3</sup> Slovakia OEL - TWA 0.3 ppm  $0.37 \text{ mg/m}^3$ Slovenia OEL - TWA 0.5 ppm 0.62 mg/m<sup>3</sup> Sweden OEL - TWAs 0.3 ppm 0.37 mg/m<sup>3</sup>

Switzerland OEL -TWAs

0.3 ppm
0.37 mg/m³
0.37 ppm
0.37 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.

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. General

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

contamination levels below the exposure limits listed above in this section.

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

**Equipment:** 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: Suspension Color: Pink

Odor: No data available. Odor Threshold: No data available.

Molecular Formula: Mixture Molecular Weight: Mixture

Solvent Solubility:
Water Solubility:
PH:
No data available
No data available
No data available.
No data available.
No data available.
No data available
No data available

Page 6 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-

Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

# 9. PHYSICAL AND CHEMICAL PROPERTIES

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 (q/ml): No data available **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: Will not occur

# 10. STABILITY AND REACTIVITY

Reactivity: No data available

Stable under normal conditions of use. **Chemical Stability:** 

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

metals.

**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)

**Formaldehyde** 

Oral LD50 800 mg/kg Rat

Polysorbate 80

Oral LD50 25 g/kg

Polymyxin B

Mouse Oral LD50 790 mg/kg

Page 7 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

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# 11. TOXICOLOGICAL INFORMATION

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

#### **Thimerosal**

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

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

### **Formaldehyde**

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Moderate Severe

#### **Thimerosal**

Eye Irritation Rabbit Mild

### Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)

#### **Formaldehyde**

90 Day(s) Dog Inhalation Not Specified Lungs 90 Day(s) Rat Inhalation Not Specified Lungs 90 Day(s) Monkey Inhalation Not Specified Lungs

9 Day(s) Rat Inhalation 15 ppm LOAEL Respiratory system

## Reproduction & Development Toxicity: (Duration, Species, Route, Dose, End Point, Effect(s))

### **Formaldehyde**

Embryo / Fetal Development Mouse Oral 185 mg/kg/day Not teratogenic, Maternal toxicity Embryo / Fetal Development Rat Inhalation 40 ppm Not Teratogenic, Maternal Toxicity

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

### **Formaldehyde**

In Vitro Bacterial Mutagenicity (Ames) Bacteria Positive
In Vitro Chromosome Aberration Rodent Positive
In Vitro Sister Chromatid Exchange Rodent Positive
In Vivo Chromosome Aberration Not specified Positive

#### Polymyxin B

In Vitro Negative In Vivo Negative

## Carcinogenicity: (Duration, Species, Route, Dose, End Point, Effect(s))

#### **Formaldehyde**

2 Year(s) Rat Inhalation 6 ppm LOAEL Tumors 2 Year(s) Mouse Inhalation 15 ppm LOAEL Tumors

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

## 11. TOXICOLOGICAL INFORMATION

Carcinogen Status: None of the components present in this material at concentrations equal to or greater than

0.1% are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen. See below

Page 8 of 12

**Formaldehyde** 

IARC: Group 1 (Carcinogenic to Humans)

NTP: Known Human Carcinogen

OSHA: Listed

# 12. ECOLOGICAL INFORMATION

The environmental characteristics of this material have not been fully evaluated. This product **Environmental Overview:** 

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

No data available Mobility in Soil:

# 13. DISPOSAL CONSIDERATIONS

Dispose of waste in accordance with all applicable laws and regulations. Member State **Waste Treatment Methods:** 

> 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).

**Formaldehyde** 

**RCRA - U Series Wastes** Listed

# 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.

Page 9 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

# 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.

## Clostridium tetani - Massachusetts (Cl. tetani)

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

### **EASTERN EQUINE ENCEPHALOMYELITIS**

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

## Equine Influenza Virus, Kentucky 97 (EIV)

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

## **Phosphate Buffered Saline**

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

### Poloxalene

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	Not Listed

## **Equine Herpesvirus-I**

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

## **Equine Herpesvirus-4**

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

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Page 10 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

# 15. REGULATORY INFORMATION

#### Polysorbate 80

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

### **WESTERN EQUINE ENCEPHALOMYELITIS**

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

#### **Thimerosal**

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

## Polymyxin B

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

#### **Neomycin Free Base**

**CERCLA/SARA 313 Emission reporting** Not Listed Not Listed **California Proposition 65** Standard for the Uniform Scheduling Schedule 4 for Drugs and Poisons:

215-766-3 **EU EINECS/ELINCS List** 

## Squalene

**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** 203-826-1

## **Formaldehyde**

**CERCLA/SARA 313 Emission reporting** 0.1 % **CERCLA/SARA Hazardous Substances** 100 lb and their Reportable Quantities: 45.4 kg **CERCLA/SARA - Section 302 Extremely Hazardous** 500 lb **TPQs** 100 lb

**CERCLA/SARA - Section 302 Extremely Hazardous** 

**Substances EPCRA RQs** 

carcinogen initial date 1/1/88 gas **California Proposition 65** 

**OSHA - Specifically Regulated Chemicals** 2 ppm 0.5 ppm

0.75 ppm

Page 11 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

# 15. REGULATORY INFORMATION

Inventory - United States TSCA - Sect. 8(b)PresentAustralia (AICS):PresentStandard for the Uniform SchedulingSchedule 2for Drugs and Poisons:Schedule 6EU EINECS/ELINCS List200-001-8

## **16. OTHER INFORMATION**

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

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

H302 - Harmful if swallowed

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H301 - Toxic if swallowed

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

H351 - Suspected of causing cancer

T+ - Very toxic

N - Dangerous for the environment

Xn - Harmful

T - Toxic

C - Corrosive

Carcinogenic: Category 3

R33 - Danger of cumulative effects.

R34 - Causes burns.

R40 - Limited evidence of a carcinogenic effect

R22 - Harmful if swallowed.

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.

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

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

**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 5 - Fire Fighting Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 11 - Toxicology Information. Updated Section 12 - Ecological Information. Updated Section 15 -

Regulatory Information.

Page 12 of 12

Material Name: FLUVAC INNOVATOR 6 (Encephalomyelitis-Rhinopneumonitis-Influenza Vaccine Eastern & Western &

Venezuelan, Killed Virus Tetanus Toxoid)

Revision date: 13-Feb-2014 Version: 2.0

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**