# SAFETY DATA SHEETS

## This SDS packet was issued with item:

078912822

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

078912858 078912891

# SAFETY DATA SHEET



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

**Product Identifier**

**Material Name: Clostridium chauvoei-septicum-novyi-sordellii-perfringens Types C&D Bacterin-Toxoid**

**Trade Name:** UltraChoice 7
**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**

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

**Contact E-Mail:** VMIPSrecords@zoetis.com

## 2. HAZARDS IDENTIFICATION

**Appearance:** Liquid solution in multiple-dose vials

**Classification of the Substance or Mixture**

**GHS - Classification**

Respiratory Sensitization: Category 1
Skin Sensitization: Category 1
Carcinogenicity: Category 1A

**EU Classification:**

EU Indication of danger: Irritant
Carcinogenic: Category 3

EU Symbol: T Xi
EU Risk Phrases:
R40 - Limited evidence of a carcinogenic effect
R43 - May cause sensitization by skin contact.

**Label Elements**

**Signal Word:** Danger
**Hazard Statements:** H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317 - May cause an allergic skin reaction
H350 - May cause cancer

**Precautionary Statements:**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P284 - Wear respiratory protection
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P308 + P313 - IF exposed or concerned: Get medical attention/advice
P405 - Store locked up
P501 - Dispose of contents/container in accordance with all local and national regulations

**Other Hazards**

**Short Term:** May cause eye and skin irritation. May cause allergic skin reaction . 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. Saponins have little toxicity for humans when ingested but have hemolytic effects when injected intravenously.

**Australian Hazard Classification (NOHSC):** Hazardous Substance. Non-Dangerous Goods.

**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 | % |
|---|---|---|---|---|---|
| Formaldehyde | 50-00-0 | 200-001-8 | T; R23/24/25<br>C; R34<br>Carc.Cat.3; R40<br>R43 | Acute Tox. 3 (H301)<br>Skin Corr. 1B (H314)<br>Skin Sens. 1 (H317)<br>Carc. 1A (H350)<br>Acute Tox. 3 (H331) | 0.1-1.0% |
| Saponin | 8047-15-2 | 232-462-6 | Not Listed | Not Listed | ## |

| Ingredient | CAS Number | EU EINECS/ELINCS List | EU Classification | GHS Classification | % |
|---|---|---|---|---|---|
| Clostridium sordellii | NOT ASSIGNED | Not Listed | Not Listed | Not Listed | * |
| Clostridium novyi | NOT ASSIGNED | Not Listed | Not Listed | Not Listed | * |
| Clostridium chauvoei | NOT ASSIGNED | Not Listed | Not Listed | Not Listed | * |
| Clostridium perfringens type D | NOT ASSIGNED | Not Listed | Not Listed | Not Listed | * |
| Clostridium septicum | NOT ASSIGNED | Not Listed | Not Listed | Not Listed | * |
| Clostridium perfringens type C | NOT ASSIGNED | Not Listed | Not Listed | Not Listed | * |
| Water, purified | 7732-18-5 | 231-791-2 | Not Listed | Not Listed | >90% |

**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.

**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 spill if it is safe to do so. Collect spill with absorbent material. 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**

Use with adequate ventilation. 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 under refrigeration in closed container. |
| **Storage Temperature:** | 2-7°C |
| **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<br>2.5 mg/m$^3$ |
| **Australia TWA** | 1 ppm<br>1.2 mg/m$^3$ |
| **Austria OEL - MAKs** | 0.5 ppm<br>0.6 mg/m$^3$ |
| **Bulgaria OEL - TWA** | 1.0 mg/m$^3$ |
| **Czech Republic OEL - TWA** | 0.5 mg/m$^3$ |
| **Estonia OEL - TWA** | 0.5 ppm<br>0.6 mg/m$^3$ |
| **Finland OEL - TWA** | 0.3 ppm<br>0.37 mg/m$^3$ |
| **France OEL - TWA** | 0.5 ppm |
| **Germany (DFG) - MAK** | 0.3 ppm<br>0.37 mg/m$^3$ no irritation should occur during mixed exposure |
| **Greece OEL - TWA** | 2 ppm<br>2.5 mg/m$^3$ |
| **Hungary OEL - TWA** | 0.6 mg/m$^3$ |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|---|---|
| **Ireland OEL - TWAs** | 2 ppm<br>2.5 mg/m$^3$ |
| **Japan - OELs - Ceilings** | 0.2 ppm<br>0.24 mg/m$^3$ |
| **Latvia OEL - TWA** | 0.5 mg/m$^3$ |
| **Lithuania OEL - TWA** | 0.5 ppm<br>0.6 mg/m$^3$ |
| **Netherlands OEL - TWA** | 0.15 mg/m$^3$ |
| **Vietnam OEL - TWAs** | 0.5 mg/m$^3$ |
| **OSHA - Final PELS - TWAs:** | 0.75 ppm |
| **OSHA - Specifically Regulated Chemicals** | 2 ppm<br>0.5 ppm<br>0.75 ppm |
| **Poland OEL - TWA** | 0.5 mg/m$^3$ |
| **Romania OEL - TWA** | 1 ppm<br>1.20 mg/m$^3$ |
| **Slovakia OEL - TWA** | 0.3 ppm<br>0.37 mg/m$^3$ |
| **Slovenia OEL - TWA** | 0.5 ppm<br>0.62 mg/m$^3$ |
| **Sweden OEL - TWAs** | 0.3 ppm<br>0.37 mg/m$^3$ |
| **Switzerland OEL -TWAs** | 0.3 ppm<br>0.37 mg/m$^3$ |

**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 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:** | Liquid Solution in multiple-dose vials | **Color:** | No data available. |
| **Odor:** | No data available. | **Odor Threshold:** | No data available. |
| **Molecular Formula:** | Mixture | **Molecular Weight:** | Mixture |

| | |
|---|---|
| **Solvent Solubility:** | No data available |
| **Water Solubility:** | No data available |
| **Solubility:** | Soluble: Water (based on components) |
| **pH:** | 7.0 +/- 1.5 |
| **Melting/Freezing Point (°C):** | No data available |
| **Boiling Point (°C):** | >100 |

## 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):** Expected to be negligible
**Vapor Density (g/ml):** No data available
**Relative Density:** No data available
**Specific Gravity:** 1.0 +/-0.2
**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
**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)**

**Formaldehyde**
Rat Oral LD50 800 mg/kg

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

**Formaldehyde**
Eye Irritation Rabbit Severe
Skin Irritation Rabbit Moderate Severe
Skin Sensitization Positive

# 11. TOXICOLOGICAL INFORMATION

**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
90 Day(s) Rat Inhalation 15 ppm LOAEL Respiratory system

**Reproduction & Developmental Toxicity: (Study Type, 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

**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

**Carcinogen Status:** See below

**Formaldehyde**
**IARC:** Group 1 (Carcinogenic to Humans)
**NTP:** Known Human Carcinogen
**OSHA:** Listed

## 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

## 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.

**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.

## 15. REGULATORY INFORMATION

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

**Canada - WHMIS: Classifications**
**WHMIS hazard class:**
Class D, Division 2, Subdivision A
Class D, Division 2, Subdivision B
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.

# 15. REGULATORY INFORMATION

**Formaldehyde**

| | |
|---|---|
| **CERCLA/SARA 313 Emission reporting** | 0.1 % |
| **CERCLA/SARA Hazardous Substances and their Reportable Quantities:** | 100 lb<br>45.4 kg |
| **CERCLA/SARA - Section 302 Extremely Hazardous TPQs** | 500 lb |
| **CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs** | 100 lb |
| **California Proposition 65** | carcinogen initial date 1/1/88 gas |
| **OSHA - Specifically Regulated Chemicals** | 2 ppm<br>0.5 ppm<br>0.75 ppm |
| **Inventory - United States TSCA - Sect. 8(b)** | Present |
| **Australia (AICS):** | Present |
| **Standard for the Uniform Scheduling for Drugs and Poisons:** | Schedule 2<br>Schedule 6 |
| **EU EINECS/ELINCS List** | 200-001-8 |

**Saponin**

| | |
|---|---|
| **CERCLA/SARA 313 Emission reporting** | Not Listed |
| **California Proposition 65** | Not Listed |
| **Australia (AICS):** | Present |
| **EU EINECS/ELINCS List** | 232-462-6 |

**Clostridium sordellii**

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

**Clostridium novyi**

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

**Clostridium chauvoei**

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

**Clostridium perfringens type D**

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

**Clostridium septicum**

| | |
|---|---|
| **CERCLA/SARA 313 Emission reporting** | Not Listed |

## 15. REGULATORY INFORMATION

| | |
|---|---|
| **California Proposition 65** | Not Listed |
| **EU EINECS/ELINCS List** | Not Listed |

**Clostridium perfringens type C**

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

**Water, purified**

| | |
|---|---|
| **CERCLA/SARA 313 Emission reporting** | Not Listed |
| **California Proposition 65** | Not Listed |
| **Inventory - United States TSCA - Sect. 8(b)** | Present |
| **Australia (AICS):** | Present |
| **REACH - Annex IV - Exemptions from the obligations of Register:** | Present |
| **EU EINECS/ELINCS List** | 231-791-2 |

## 16. OTHER INFORMATION

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

H301 - Toxic if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H350 - May cause cancer
H331 - Toxic if inhaled

T - Toxic
Carcinogenic: Category 3
C - Corrosive

R34 - Causes burns.
R40 - Limited evidence of a carcinogenic effect
R43 - May cause sensitization by skin contact.
R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.

**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 5 - Fire Fighting Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 10 - Stability and Reactivity. Updated Section 11 - Toxicology Information. Updated Section 15 - Regulatory 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**