

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

078912890

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

078403544 078403783

**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).**

078912809 078912850



# MATERIAL SAFETY DATA SHEET

Revision date: 07-Dec-2006

Version: 1.4

Page 1 of 7

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

**Pfizer Animal Health**  
**Pfizer Inc**  
235 East 42nd Street  
New York, NY 10017  
Poison Control Center Phone: 1-866-531-8896  
Technical Services Phone: 1-800-366-5288

**Pfizer Ltd,**  
**Kent**  
CT13 9NJ  
United Kingdom  
+00 44 (0)1304 616161

Emergency telephone number:  
CHEMTREC (24 hours): 1-800-424-9300

Emergency telephone number:  
ChemSafe (24 hours): +44 (0)208 762 8322

**Material Name: Clostridium Chauvoei-Septicum-Haemolyticum-Novyi-Sordelli-Perfringens  
Types C&D Bacterin-Toxoid**

**Trade Name:** Ultrabac (R) 8  
**Chemical Family:** Mixture  
**Intended Use:** Veterinary Vaccine

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous

Ingredient	CAS Number	EU EINECS List	%
Formaldehyde	50-00-0	200-001-8	0.1 - 1.0%

Ingredient	CAS Number	EU EINECS List	%
Clostridium perfringens type C	NOT ASSIGNED	Not listed	*
Aluminum hydroxide gel	21645-51-2	244-492-7	*
Water, purified	7732-18-5	231-791-2	>90%
Clostridium chauvoei	NOT ASSIGNED	Not listed	*
Clostridium haemolyticum	NOT ASSIGNED	Not listed	*
Clostridium septicum	NOT ASSIGNED	Not listed	*
Clostridium sordellii	NOT ASSIGNED	Not listed	*
Clostridium perfringens type D	NOT ASSIGNED	Not listed	*
Clostridium novyi	NOT ASSIGNED	Not listed	*

### Additional Information:

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

## 3. HAZARDS IDENTIFICATION

**Appearance:** Liquid solution in multiple-dose vials  
**Signal Word:** WARNING

**Statement of Hazard:** Contains formaldehyde: potential cancer hazard  
May cause sensitization of the skin and respiratory system  
May cause eye, skin and respiratory tract irritation.

## MATERIAL SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
**Revision date:** 07-Dec-2006

**Page 2 of 7**

**Version:** 1.4

**Short Term:**

May cause eye and skin irritation: May cause allergic 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.  
Irritant

**EU Indication of danger:**

**EU Hazard Symbols:**



**EU Risk Phrases:**

R43 - May cause sensitization by skin contact.

**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.

### 4. 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.

### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** As for primary cause of fire.

**Hazardous Combustion Products:** Not known

**Fire Fighting Procedures:** Dike and collect water used to fight fire.

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

### 6. ACCIDENTAL RELEASE MEASURES

**Health and Safety Precautions:** Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

**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.

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

**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.

## MATERIAL SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 07-Dec-2006

Page 3 of 7

Version: 1.4

### 7. HANDLING AND STORAGE

**General Handling:** Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use appropriate personal protective equipment.

**Storage Conditions:** Store under refrigeration in closed container.

**Storage Temperature:** 2-7°C

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Formaldehyde

OSHA - Final PELs - TWAs:	= 0.75 ppm TWA
OSHA - Specifically Regulated Chemicals	= 0.5 ppm Action Level
	= 0.75 ppm TWA
	= 2 ppm STEL Irritant and potential cancer hazard - see 29 CFR 1910.1048
ACGIH Ceiling Threshold Limit:	= 0.3 ppm Ceiling
ACGIH - Sensitizer Designation	Sensitizer
Australia STEL	= 2 ppm STEL
	= 2.5 mg/m <sup>3</sup> STEL
Australia TWA	= 1 ppm TWA
	= 1.2 mg/m <sup>3</sup> TWA

See exposure limits for component (s) listed above. The exposure limit(s) listed for solid components are only relevant if dust or mist may be generated.

**Engineering Controls:** Engineering controls should be used as the primary means to control exposures. Exposure monitoring may be necessary to determine requirements.

#### Personal Protective Equipment:

**Hands:** Wear impervious gloves if skin contact is possible.

**Eyes:** Safety glasses or goggles

**Skin:** Wear protective clothing when working with large quantities. Wash hands and arms thoroughly after handling this material.

**Respiratory protection:** In the event of a spill where the applicable Occupational Exposure Limit (OEL) may be exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures below the OEL.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>Physical State:</b>	Liquid Solution in multiple-dose vials	<b>Color:</b>	No data available.
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture

<b>Solubility:</b>	Soluble: Water (based on components)
<b>pH:</b>	7.0 +/- 1.5
<b>Boiling Point (°C):</b>	>100
<b>Vapor Pressure (kPa):</b>	Expected to be negligible
<b>Specific Gravity:</b>	1.0 +/-0.2

<b>Flash Point (Liquid) (°C):</b>	Non-flammable
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## MATERIAL SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
**Revision date:** 07-Dec-2006

**Page 4 of 7**

**Version: 1.4**

### 10. STABILITY AND REACTIVITY

**Stability:** Stable  
**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.  
**Polymerization:** Will not occur

### 11. TOXICOLOGICAL INFORMATION

**General Information:** The antigens included in this product are non-infectious. All have been prepared from killed or inactivated preparations of microorganisms. The primary hazards are due to the formaldehyde content. 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

##### **Aluminum hydroxide gel**

Rat Intraperitoneal LD50 150 mg/kg

**Inhalation Acute Toxicity** Not determined for this mixture. However, irritation may occur based on effects of individual components.

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

##### **Formaldehyde**

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Moderate Severe

**Skin Irritation / Sensitization** This product contains formaldehyde which is considered to be a skin sensitizer.

#### 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

##### **Subchronic Effects**

Rats exposed to 15 ppm formaldehyde vapor for six hours/day for up to nine days showed an acute cell degeneration, necrosis and inflammation in the nasal cavities. Inhalation exposure to formaldehyde for up to 90 days produced interstitial inflammation in the lungs of dogs, rats, monkeys, rabbits and guinea pigs.

##### **Chronic Effects/Carcinogenicity**

In rats, several inhalation studies have shown that formaldehyde induces squamous-cell carcinomas and necrosis of the nasal cavity. Formaldehyde also showed cocarcinogenic effects when inhaled, ingested, or applied to the skin of rodents.

#### 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

## MATERIAL SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
**Revision date:** 07-Dec-2006

Page 5 of 7

Version: 1.4

Embryo / Fetal Development Rat Inhalation 40 ppm Not Teratogenic, Maternal Toxicity  
**Reproductive Effects** Not considered to be a reproductive hazard.  
**Teratogenicity** Formaldehyde has been tested by inhalation, oral, and dermal routes and has not been shown to be teratogenic in animals.

### 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

**Mutagenicity** Formaldehyde has been reported to be active in many short-term tests, both in vitro and in vivo.

### 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:** Contains formaldehyde: potential cancer hazard. See below

#### Formaldehyde

**IARC:** Group 1

**NTP:** Reasonably Anticipated To Be A Carcinogen

**OSHA:** Present

## 12. ECOLOGICAL INFORMATION

**Environmental Overview:** The environmental characteristics of this material have not been fully evaluated. Releases to the environment should be avoided.

## 13. DISPOSAL CONSIDERATIONS

**Disposal Procedures:** Dispose of waste in accordance with all applicable laws and regulations.

#### Formaldehyde

RCRA - U Series Wastes

waste number U122

## 14. TRANSPORT INFORMATION

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

## MATERIAL SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 07-Dec-2006

Page 6 of 7

Version: 1.4

### 15. REGULATORY INFORMATION

EU Symbol: Xi  
EU Indication of danger: Irritant

EU Risk Phrases:  
R43 - May cause sensitization by skin contact.

EU Safety Phrases:  
S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.

OSHA Label:  
WARNING  
Contains formaldehyde: potential cancer hazard  
May cause sensitization of the skin and respiratory system  
May cause eye, skin and respiratory tract irritation.

#### Canada - WHMIS: Classifications

WHMIS hazard class:  
Class D, Division 2, Subdivision A



#### Aluminum hydroxide gel

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS List	244-492-7

#### Formaldehyde

CERCLA/SARA 313 Emission reporting	= 0.1 % de minimis concentration
CERCLA/SARA Hazardous Substances	= 100 lb final RQ
and their Reportable Quantities:	= 45.4 kg final RQ
CERCLA/SARA - Section 302 Extremely Hazardous	= 500 lb TPQ
TPQs	
CERCLA/SARA - Section 302 Extremely Hazardous	= 100 lb EPCRA RQ
Substances EPCRA RQs	
California Proposition 65	carcinogen, initial date 1/1/88 (gas)
OSHA - Specifically Regulated Chemicals	= 0.5 ppm Action Level
	= 0.75 ppm TWA
	= 2 ppm STEL Irritant and potential cancer hazard - see 29 CFR
	1910.1048
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling	Schedule 2
for Drugs and Poisons:	Schedule 6
EU EINECS List	200-001-8

## MATERIAL SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 07-Dec-2006

Page 7 of 7

Version: 1.4

### Water, purified

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS List	231-791-2

## 16. OTHER INFORMATION

**Reasons for Revision:** Updated Section 2 - Composition / Information on Ingredients. Updated Section 3 - Hazard Identification. Updated Section 5 - Fire Fighting Measures. Updated Section 6 - Accidental Release Measures. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 11 - Toxicology Information. Updated Section 13 - Disposal Considerations. Updated Section 15 - Regulatory Information.

**Prepared by:** Toxicology and Hazard Communication  
Pfizer Global Environment, Health, and Safety

Pfizer 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 a warranty of any kind, expressed or implied.

**End of Safety Data Sheet**





# MATERIAL SAFETY DATA SHEET

Revision date: 07-Dec-2006

Version: 1.4

Page 1 of 7

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

**Pfizer Animal Health**  
**Pfizer Inc**  
235 East 42nd Street  
New York, NY 10017  
Poison Control Center Phone: 1-866-531-8896  
Technical Services Phone: 1-800-366-5288

**Pfizer Ltd,**  
**Kent**  
CT13 9NJ  
United Kingdom  
+00 44 (0)1304 616161

Emergency telephone number:  
CHEMTREC (24 hours): 1-800-424-9300

Emergency telephone number:  
ChemSafe (24 hours): +44 (0)208 762 8322

**Material Name: Clostridium Chauvoei-Septicum-Haemolyticum-Novyi-Sordelli-Perfringens  
Types C&D Bacterin-Toxoid**

**Trade Name:** Ultrabac (R) 8  
**Chemical Family:** Mixture  
**Intended Use:** Veterinary Vaccine

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous

Ingredient	CAS Number	EU EINECS List	%
Formaldehyde	50-00-0	200-001-8	0.1 - 1.0%

Ingredient	CAS Number	EU EINECS List	%
Clostridium perfringens type C	NOT ASSIGNED	Not listed	*
Aluminum hydroxide gel	21645-51-2	244-492-7	*
Water, purified	7732-18-5	231-791-2	>90%
Clostridium chauvoei	NOT ASSIGNED	Not listed	*
Clostridium haemolyticum	NOT ASSIGNED	Not listed	*
Clostridium septicum	NOT ASSIGNED	Not listed	*
Clostridium sordellii	NOT ASSIGNED	Not listed	*
Clostridium perfringens type D	NOT ASSIGNED	Not listed	*
Clostridium novyi	NOT ASSIGNED	Not listed	*

### Additional Information:

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

## 3. HAZARDS IDENTIFICATION

**Appearance:** Liquid solution in multiple-dose vials  
**Signal Word:** WARNING

**Statement of Hazard:** Contains formaldehyde: potential cancer hazard  
May cause sensitization of the skin and respiratory system  
May cause eye, skin and respiratory tract irritation.

## MATERIAL SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
**Revision date:** 07-Dec-2006

**Page 2 of 7**

**Version: 1.4**

**Short Term:**

May cause eye and skin irritation: May cause allergic 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.  
Irritant

**EU Indication of danger:**

**EU Hazard Symbols:**



**EU Risk Phrases:**

R43 - May cause sensitization by skin contact.

**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.

### 4. 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.

### 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** As for primary cause of fire.

**Hazardous Combustion Products:** Not known

**Fire Fighting Procedures:** Dike and collect water used to fight fire.

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

### 6. ACCIDENTAL RELEASE MEASURES

**Health and Safety Precautions:** Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

**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.

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

**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.

## MATERIAL SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 07-Dec-2006

Page 3 of 7

Version: 1.4

### 7. HANDLING AND STORAGE

**General Handling:** Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use appropriate personal protective equipment.

**Storage Conditions:** Store under refrigeration in closed container.

**Storage Temperature:** 2-7°C

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Formaldehyde

OSHA - Final PELS - TWAs:	= 0.75 ppm TWA
OSHA - Specifically Regulated Chemicals	= 0.5 ppm Action Level
	= 0.75 ppm TWA
	= 2 ppm STEL Irritant and potential cancer hazard - see 29 CFR 1910.1048
ACGIH Ceiling Threshold Limit:	= 0.3 ppm Ceiling
ACGIH - Sensitizer Designation	Sensitizer
Australia STEL	= 2 ppm STEL
	= 2.5 mg/m <sup>3</sup> STEL
Australia TWA	= 1 ppm TWA
	= 1.2 mg/m <sup>3</sup> TWA

See exposure limits for component (s) listed above. The exposure limit(s) listed for solid components are only relevant if dust or mist may be generated.

**Engineering Controls:** Engineering controls should be used as the primary means to control exposures. Exposure monitoring may be necessary to determine requirements.

#### Personal Protective Equipment:

**Hands:** Wear impervious gloves if skin contact is possible.

**Eyes:** Safety glasses or goggles

**Skin:** Wear protective clothing when working with large quantities. Wash hands and arms thoroughly after handling this material.

**Respiratory protection:** In the event of a spill where the applicable Occupational Exposure Limit (OEL) may be exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures below the OEL.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

<b>Physical State:</b>	Liquid Solution in multiple-dose vials	<b>Color:</b>	No data available.
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture

<b>Solubility:</b>	Soluble: Water (based on components)
<b>pH:</b>	7.0 +/- 1.5
<b>Boiling Point (°C):</b>	>100
<b>Vapor Pressure (kPa):</b>	Expected to be negligible
<b>Specific Gravity:</b>	1.0 +/-0.2

<b>Flash Point (Liquid) (°C):</b>	Non-flammable
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## MATERIAL SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
**Revision date:** 07-Dec-2006

**Page 4 of 7**

**Version: 1.4**

### 10. STABILITY AND REACTIVITY

**Stability:** Stable  
**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.  
**Polymerization:** Will not occur

### 11. TOXICOLOGICAL INFORMATION

**General Information:** The antigens included in this product are non-infectious. All have been prepared from killed or inactivated preparations of microorganisms. The primary hazards are due to the formaldehyde content. 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

##### **Aluminum hydroxide gel**

Rat Intraperitoneal LD50 150 mg/kg

**Inhalation Acute Toxicity** Not determined for this mixture. However, irritation may occur based on effects of individual components.

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

##### **Formaldehyde**

Eye Irritation Rabbit Severe

Skin Irritation Rabbit Moderate Severe

**Skin Irritation / Sensitization** This product contains formaldehyde which is considered to be a skin sensitizer.

#### 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

##### **Subchronic Effects**

Rats exposed to 15 ppm formaldehyde vapor for six hours/day for up to nine days showed an acute cell degeneration, necrosis and inflammation in the nasal cavities. Inhalation exposure to formaldehyde for up to 90 days produced interstitial inflammation in the lungs of dogs, rats, monkeys, rabbits and guinea pigs.

##### **Chronic Effects/Carcinogenicity**

In rats, several inhalation studies have shown that formaldehyde induces squamous-cell carcinomas and necrosis of the nasal cavity. Formaldehyde also showed cocarcinogenic effects when inhaled, ingested, or applied to the skin of rodents.

#### 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

## MATERIAL SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
**Revision date:** 07-Dec-2006

**Page 5 of 7**

**Version: 1.4**

Embryo / Fetal Development Rat Inhalation 40 ppm Not Teratogenic, Maternal Toxicity  
**Reproductive Effects** Not considered to be a reproductive hazard.  
**Teratogenicity** Formaldehyde has been tested by inhalation, oral, and dermal routes and has not been shown to be teratogenic in animals.

### 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

**Mutagenicity** Formaldehyde has been reported to be active in many short-term tests, both in vitro and in vivo.

### 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:** Contains formaldehyde: potential cancer hazard. See below

#### **Formaldehyde**

**IARC:** Group 1

**NTP:** Reasonably Anticipated To Be A Carcinogen

**OSHA:** Present

## 12. ECOLOGICAL INFORMATION

**Environmental Overview:** The environmental characteristics of this material have not been fully evaluated. Releases to the environment should be avoided.

## 13. DISPOSAL CONSIDERATIONS

**Disposal Procedures:** Dispose of waste in accordance with all applicable laws and regulations.

#### **Formaldehyde**

RCRA - U Series Wastes

waste number U122

## 14. TRANSPORT INFORMATION

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

## MATERIAL SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 07-Dec-2006

Page 6 of 7

Version: 1.4

### 15. REGULATORY INFORMATION

EU Symbol: Xi  
EU Indication of danger: Irritant

EU Risk Phrases:  
R43 - May cause sensitization by skin contact.

EU Safety Phrases:  
S24 - Avoid contact with skin.  
S37 - Wear suitable gloves.

#### OSHA Label:

WARNING

Contains formaldehyde: potential cancer hazard

May cause sensitization of the skin and respiratory system

May cause eye, skin and respiratory tract irritation.

#### Canada - WHMIS: Classifications

##### WHMIS hazard class:

Class D, Division 2, Subdivision A



#### Aluminum hydroxide gel

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS List	244-492-7

#### Formaldehyde

CERCLA/SARA 313 Emission reporting	= 0.1 % de minimis concentration
CERCLA/SARA Hazardous Substances	= 100 lb final RQ
and their Reportable Quantities:	= 45.4 kg final RQ
CERCLA/SARA - Section 302 Extremely Hazardous TPQs	= 500 lb TPQ
CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	= 100 lb EPCRA RQ
California Proposition 65	carcinogen, initial date 1/1/88 (gas)
OSHA - Specifically Regulated Chemicals	= 0.5 ppm Action Level
	= 0.75 ppm TWA
	= 2 ppm STEL    Irritant and potential cancer hazard - see 29 CFR 1910.1048
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 2
	Schedule 6
EU EINECS List	200-001-8

## MATERIAL SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 07-Dec-2006

Page 7 of 7

Version: 1.4

### Water, purified

Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS List	231-791-2

## 16. OTHER INFORMATION

**Reasons for Revision:** Updated Section 2 - Composition / Information on Ingredients. Updated Section 3 - Hazard Identification. Updated Section 5 - Fire Fighting Measures. Updated Section 6 - Accidental Release Measures. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 11 - Toxicology Information. Updated Section 13 - Disposal Considerations. Updated Section 15 - Regulatory Information.

**Prepared by:** Toxicology and Hazard Communication  
Pfizer Global Environment, Health, and Safety

Pfizer 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 a warranty of any kind, expressed or implied.

**End of Safety Data Sheet**

# SAFETY DATA SHEET



Revision date: 17-Mar-2014

Version: 3.0

Page 1 of 11

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

### Product Identifier

**Material Name:** Clostridium Chauvoei-Septicum-Haemolyticum-Novyi-Sordelli-Perfringens Types C&D Bacterin-Toxoid

**Trade Name:** Ultrabac 8  
**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:** Liquid solution in multiple-dose vials

### Classification of the Substance or Mixture

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

### EU Classification:

EU Indication of danger: Irritant  
Carcinogenic: Category 3

EU Symbol: Xi  
EU Risk Phrases:

R43 - May cause sensitization by skin contact.  
R40 - Limited evidence of a carcinogenic effect

### 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



## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 2 of 11

Version: 3.0

### 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 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.  
Hazardous Substance. Non-Dangerous Goods.

### Australian Hazard Classification (NOHSC):

#### 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	%
Aluminum hydroxide gel	21645-51-2	244-492-7	Not Listed	Not Listed	##
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. 1A (H350) Acute Tox. 3 (H331)	0.1-1

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 3 of 11

Version: 3.0

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Clostridium haemolyticum	NOT ASSIGNED	Not Listed	Not Listed	Not Listed	*
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

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 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.

## SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
**Revision date:** 17-Mar-2014

**Page** 4 of 11

**Version:** 3.0

### 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. 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.

#### Aluminum hydroxide gel

ACGIH Threshold Limit Value (TWA)	1 mg/m <sup>3</sup>
Austria OEL - MAKs	5 mg/m <sup>3</sup>
Germany (DFG) - MAK	4 mg/m <sup>3</sup>
	1.5 mg/m <sup>3</sup>
Latvia OEL - TWA	6 mg/m <sup>3</sup>
Lithuania OEL - TWA	6 mg/m <sup>3</sup>
Poland OEL - TWA	2.5 mg/m <sup>3</sup>
	1.2 mg/m <sup>3</sup>
Slovakia OEL - TWA	1.5 mg/m <sup>3</sup>
Switzerland OEL -TWAs	3 mg/m <sup>3</sup>

#### Formaldehyde

ACGIH Ceiling Threshold Limit:	0.3 ppm
ACGIH - Sensitizer Designation	Sensitizer

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 5 of 11

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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 mg/m <sup>3</sup>
Bulgaria OEL - TWA	1.0 mg/m <sup>3</sup>
Czech Republic OEL - TWA	0.5 mg/m <sup>3</sup>
Estonia OEL - TWA	0.5 ppm 0.6 mg/m <sup>3</sup>
Finland OEL - TWA	0.3 ppm 0.37 mg/m <sup>3</sup>
France OEL - TWA	0.5 ppm
Germany (DFG) - MAK	0.3 ppm 0.37 mg/m <sup>3</sup> 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/m <sup>3</sup>
Ireland OEL - TWAs	2 ppm 2.5 mg/m <sup>3</sup>
Japan - OELs - Ceilings	0.2 ppm 0.24 mg/m <sup>3</sup>
Latvia OEL - TWA	0.5 mg/m <sup>3</sup>
Lithuania OEL - TWA	0.5 ppm 0.6 mg/m <sup>3</sup>
Netherlands OEL - TWA	0.15 mg/m <sup>3</sup>
Vietnam OEL - TWAs	0.5 mg/m <sup>3</sup>
OSHA - Final PELs - TWAs:	0.75 ppm
OSHA - Specifically Regulated Chemicals	2 ppm 0.5 ppm 0.75 ppm
Poland OEL - TWA	0.5 mg/m <sup>3</sup>
Romania OEL - TWA	1 ppm 1.20 mg/m <sup>3</sup>
Slovakia OEL - TWA	0.3 ppm 0.37 mg/m <sup>3</sup>
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/m <sup>3</sup>

#### 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 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

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 6 of 11

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**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

<b>Physical State:</b>	Liquid Solution in multiple-dose vials	<b>Color:</b>	No data available.
<b>Odor:</b>	No data available.	<b>Odor Threshold:</b>	No data available.
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture
<b>Solvent Solubility:</b>	No data available		
<b>Water Solubility:</b>	No data available		
<b>Solubility:</b>	Soluble: Water (based on components)		
<b>pH:</b>	7.0 +/- 1.5		
<b>Melting/Freezing Point (°C):</b>	No data available		
<b>Boiling Point (°C):</b>	>100		
<b>Partition Coefficient: (Method, pH, Endpoint, Value)</b>			
No data available			
<b>Decomposition Temperature (°C):</b>	No data available.		
<b>Evaporation Rate (Gram/s):</b>	No data available		
<b>Vapor Pressure (kPa):</b>	Expected to be negligible		
<b>Vapor Density (g/ml):</b>	No data available		
<b>Relative Density:</b>	No data available		
<b>Specific Gravity:</b>	1.0 +/-0.2		
<b>Viscosity:</b>	No data available		
<b>Flammability:</b>			
<b>Autoignition Temperature (Solid) (°C):</b>	No data available		
<b>Flammability (Solids):</b>	No data available		
<b>Flash Point (Liquid) (°C):</b>	Non-flammable		
<b>Upper Explosive Limits (Liquid) (% by Vol.):</b>	No data available		
<b>Lower Explosive Limits (Liquid) (% by Vol.):</b>	No data available		
<b>Polymerization:</b>	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:** 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:** No data available

## SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
**Bacterin-Toxoid**  
**Revision date:** 17-Mar-2014

Page 7 of 11

Version: 3.0

### 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

###### Aluminum hydroxide gel

Rat Para-periosteal LD50 150 mg/kg

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

###### Formaldehyde

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

##### 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

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 8 of 11

Version: 3.0

### 11. TOXICOLOGICAL INFORMATION

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.

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 9 of 11

Version: 3.0

### 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



#### Aluminum hydroxide gel

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	244-492-7

#### Clostridium haemolyticum

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

#### Formaldehyde

CERCLA/SARA 313 Emission reporting	0.1 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	100 lb
CERCLA/SARA - Section 302 Extremely Hazardous TPQs	45.4 kg
CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	500 lb
California Proposition 65	100 lb
OSHA - Specifically Regulated Chemicals	carcinogen initial date 1/1/88 gas
	2 ppm
	0.5 ppm
	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
	Schedule 6
EU EINECS/ELINCS List	200-001-8

#### Clostridium sordellii

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



## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 10 of 11

Version: 3.0

### 15. REGULATORY INFORMATION

#### 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
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

## SAFETY DATA SHEET

**Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid**  
**Revision date: 17-Mar-2014**

**Page 11 of 11**

**Version: 3.0**

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R40 - Limited evidence of a carcinogenic effect  
R43 - May cause sensitization by skin contact.  
R34 - Causes burns.  
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 5 - Fire Fighting Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. 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**

# SAFETY DATA SHEET



Revision date: 17-Mar-2014

Version: 3.0

Page 1 of 11

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

### Product Identifier

**Material Name:** Clostridium Chauvoei-Septicum-Haemolyticum-Novyi-Sordelli-Perfringens Types C&D Bacterin-Toxoid

**Trade Name:** Ultrabac 8  
**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:** Liquid solution in multiple-dose vials

### Classification of the Substance or Mixture

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

### EU Classification:

EU Indication of danger: Irritant  
Carcinogenic: Category 3

EU Symbol: Xi  
EU Risk Phrases:

R43 - May cause sensitization by skin contact.  
R40 - Limited evidence of a carcinogenic effect

### 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

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 2 of 11

Version: 3.0

**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 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.  
Hazardous Substance. Non-Dangerous Goods.

**Australian Hazard Classification (NOHSC):**

**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	%
Aluminum hydroxide gel	21645-51-2	244-492-7	Not Listed	Not Listed	##
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. 1A (H350) Acute Tox. 3 (H331)	0.1-1

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 3 of 11

Version: 3.0

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Clostridium haemolyticum	NOT ASSIGNED	Not Listed	Not Listed	Not Listed	*
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

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 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.

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 4 of 11

Version: 3.0

### 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. 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.

#### Aluminum hydroxide gel

ACGIH Threshold Limit Value (TWA)	1 mg/m <sup>3</sup>
Austria OEL - MAKs	5 mg/m <sup>3</sup>
Germany (DFG) - MAK	4 mg/m <sup>3</sup>
	1.5 mg/m <sup>3</sup>
Latvia OEL - TWA	6 mg/m <sup>3</sup>
Lithuania OEL - TWA	6 mg/m <sup>3</sup>
Poland OEL - TWA	2.5 mg/m <sup>3</sup>
	1.2 mg/m <sup>3</sup>
Slovakia OEL - TWA	1.5 mg/m <sup>3</sup>
Switzerland OEL -TWAs	3 mg/m <sup>3</sup>

#### Formaldehyde

ACGIH Ceiling Threshold Limit:	0.3 ppm
ACGIH - Sensitizer Designation	Sensitizer

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 5 of 11

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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 mg/m <sup>3</sup>
Bulgaria OEL - TWA	1.0 mg/m <sup>3</sup>
Czech Republic OEL - TWA	0.5 mg/m <sup>3</sup>
Estonia OEL - TWA	0.5 ppm 0.6 mg/m <sup>3</sup>
Finland OEL - TWA	0.3 ppm 0.37 mg/m <sup>3</sup>
France OEL - TWA	0.5 ppm
Germany (DFG) - MAK	0.3 ppm 0.37 mg/m <sup>3</sup> 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/m <sup>3</sup>
Ireland OEL - TWAs	2 ppm 2.5 mg/m <sup>3</sup>
Japan - OELs - Ceilings	0.2 ppm 0.24 mg/m <sup>3</sup>
Latvia OEL - TWA	0.5 mg/m <sup>3</sup>
Lithuania OEL - TWA	0.5 ppm 0.6 mg/m <sup>3</sup>
Netherlands OEL - TWA	0.15 mg/m <sup>3</sup>
Vietnam OEL - TWAs	0.5 mg/m <sup>3</sup>
OSHA - Final PELs - TWAs:	0.75 ppm
OSHA - Specifically Regulated Chemicals	2 ppm 0.5 ppm 0.75 ppm
Poland OEL - TWA	0.5 mg/m <sup>3</sup>
Romania OEL - TWA	1 ppm 1.20 mg/m <sup>3</sup>
Slovakia OEL - TWA	0.3 ppm 0.37 mg/m <sup>3</sup>
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/m <sup>3</sup>

#### 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 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

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 6 of 11

Version: 3.0

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**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

<b>Physical State:</b>	Liquid Solution in multiple-dose vials	<b>Color:</b>	No data available.
<b>Odor:</b>	No data available.	<b>Odor Threshold:</b>	No data available.
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture
<b>Solvent Solubility:</b>	No data available		
<b>Water Solubility:</b>	No data available		
<b>Solubility:</b>	Soluble: Water (based on components)		
<b>pH:</b>	7.0 +/- 1.5		
<b>Melting/Freezing Point (°C):</b>	No data available		
<b>Boiling Point (°C):</b>	>100		
<b>Partition Coefficient: (Method, pH, Endpoint, Value)</b>			
No data available			
<b>Decomposition Temperature (°C):</b>	No data available.		
<b>Evaporation Rate (Gram/s):</b>	No data available		
<b>Vapor Pressure (kPa):</b>	Expected to be negligible		
<b>Vapor Density (g/ml):</b>	No data available		
<b>Relative Density:</b>	No data available		
<b>Specific Gravity:</b>	1.0 +/-0.2		
<b>Viscosity:</b>	No data available		
<b>Flammability:</b>			
<b>Autoignition Temperature (Solid) (°C):</b>	No data available		
<b>Flammability (Solids):</b>	No data available		
<b>Flash Point (Liquid) (°C):</b>	Non-flammable		
<b>Upper Explosive Limits (Liquid) (% by Vol.):</b>	No data available		
<b>Lower Explosive Limits (Liquid) (% by Vol.):</b>	No data available		
<b>Polymerization:</b>	Will not occur		

### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No data available
<b>Chemical Stability:</b>	Stable under normal conditions of use.
<b>Possibility of Hazardous Reactions</b>	
<b>Oxidizing Properties:</b>	No data available
<b>Conditions to Avoid:</b>	Store at 2-7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do not freeze.
<b>Incompatible Materials:</b>	This material can be denatured or inactivated by a variety of organic solvents, salts or heavy metals.
<b>Hazardous Decomposition Products:</b>	No data available



## SAFETY DATA SHEET

**Material Name:** Clostridium Chauvoei-Septicum-Haemolyticum-Novyi-Sordelli-Perfringens Types C&D Bacterin-Toxoid  
**Revision date:** 17-Mar-2014

Page 7 of 11

Version: 3.0

### 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

###### Aluminum hydroxide gel

Rat Para-periosteal LD50 150 mg/kg

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

###### Formaldehyde

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

##### 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

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 8 of 11

Version: 3.0

### 11. TOXICOLOGICAL INFORMATION

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.

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 9 of 11

Version: 3.0

### 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



#### Aluminum hydroxide gel

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	244-492-7

#### Clostridium haemolyticum

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

#### Formaldehyde

CERCLA/SARA 313 Emission reporting	0.1 %
CERCLA/SARA Hazardous Substances and their Reportable Quantities:	100 lb
CERCLA/SARA - Section 302 Extremely Hazardous TPQs	45.4 kg
CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs	500 lb
California Proposition 65	100 lb
OSHA - Specifically Regulated Chemicals	carcinogen initial date 1/1/88 gas
	2 ppm
	0.5 ppm
	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
	Schedule 6
EU EINECS/ELINCS List	200-001-8

#### Clostridium sordellii

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

## SAFETY DATA SHEET

Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid  
Revision date: 17-Mar-2014

Page 10 of 11

Version: 3.0

### 15. REGULATORY INFORMATION

#### 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
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

## SAFETY DATA SHEET

**Material Name: Clostridium Chauvoei-Septicum-  
Haemolyticum-Novyi-Sordelli-Perfringens Types C&D  
Bacterin-Toxoid**  
**Revision date: 17-Mar-2014**

**Page 11 of 11**

**Version: 3.0**

R40 - Limited evidence of a carcinogenic effect  
R43 - May cause sensitization by skin contact.  
R34 - Causes burns.  
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 5 - Fire Fighting Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. 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**