

## **SAFETY DATA SHEETS**

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

078394418

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

078912840



## MATERIAL SAFETY DATA SHEET

Revision date: 04-Dec-2008

Version: 1.0

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### 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  
Contact E-Mail: pfizer-MSDS@pfizer.com

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

#### Material Name: Albadry Plus (US)

Trade Name:	ALBADRY PLUS
Chemical Family:	Mixture
Intended Use:	Veterinary product used for subclinical mastitis in dry cows only

### 2. HAZARDS IDENTIFICATION

Appearance: Clear, pale yellow, oily liquid  
Signal Word: WARNING

Statement of Hazard: May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.  
May cause allergic skin reaction.

#### Additional Hazard Information:

Short Term: May be harmful if swallowed. May cause skin irritation. (based on components) .

Long Term: May cause effects on blood and blood forming organs, liver.

Known Clinical Effects: Ingestion of this material may cause effects similar to those seen in clinical use including skin rash, loss of hair, blood system changes, Stevens Johnson Syndrome (epidermal necrosis and exfoliative dermatitis), changes in liver function, effects on gastrointestinal system, nausea, vomiting, diarrhea. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

EU Indication of danger: Harmful  
Irritant

#### EU Hazard Symbols:

Xn



#### EU Risk Phrases:

R42/43 - May cause sensitization by inhalation and skin contact.  
Hazardous Substance. Non-Dangerous Goods.

Australian Hazard Classification  
(NOHSC):

PZ00858

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### 2. HAZARDS IDENTIFICATION

**Note:**

This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the active substance or its intermediates 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	Classification	%
Novobiocin Sodium	1476-53-5	216-023-6	Xi;R36-43	5
Chlorobutanol	57-15-8	200-317-6	Xn;R22	0.05
Procaine Penicillin G monohydrate	6130-64-9	Not listed	Xn;R42/43	2

Ingredient	CAS Number	EU EINECS/ELINCS List	Classification	%
Aluminum monostearate	7047-84-9	230-325-5	Not Listed	*

**Additional Information:**

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

For the full text of the R phrases mentioned in this Section, see Section 16

### 4. 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.
- 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.

### 5. FIRE FIGHTING MEASURES

- Extinguishing Media:** Use carbon dioxide, dry chemical, or water spray.
- Hazardous Combustion Products:** Emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.
- Fire Fighting Procedures:** During all fire fighting activities, wear appropriate protective equipment, including self-contained breathing apparatus.
- Fire / Explosion Hazards:** Fine particles (such as dust and mists) may fuel fires/explosions.

### 6. ACCIDENTAL RELEASE MEASURES

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Material Name: Albadry Plus (US)  
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### 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.

### 7. HANDLING AND STORAGE

- General Handling:** Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment (see Section 8). Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.
- Storage Conditions:** Store at controlled room temperature. Keep out of reach of children.
- Storage Temperature:** 20-25°C (68-77°F)

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Refer to available public information for specific member state Occupational Exposure Limits.

#### Novobiocin Sodium

Pfizer OEL TWA-8 Hr: 250 µg/m³, Sensitizer

#### Aluminum monostearate

ACGIH OELs - Notice of Intended Changes	Listed
Lithuania OEL - TWA	Listed
Sweden OEL - TWAs	= 5 mg/m³ LLV

The purpose of the Occupational Exposure Band (OEB) classification system is to separate substances into different Hazard categories when the available data are sufficient to do so, but inadequate to establish an Occupational Exposure Limit (OEL). The OEB given is based upon an analysis of all currently available data; as such, this value may be subject to revision when new information becomes available.

#### Procaine Penicillin G monohydrate

**Pfizer Occupational Exposure Band (OEB):** OEB 2 - Sensitizer (control exposure to the range of >100ug/m³ to < 1000ug/m³, provide additional precautions to protect from skin contact)

- 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.
- Environmental Exposure Controls:** Refer to specific Member State legislation for requirements under Community environmental legislation.
- Personal Protective Equipment:** Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).
- Hands:** Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.
- Eyes:** Wear safety glasses or goggles if eye contact is possible.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Skin:** Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

**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>	Oil Suspension	<b>Color:</b>	Light yellow
<b>Molecular Formula:</b>	Mixture	<b>Molecular Weight:</b>	Mixture

### 10. STABILITY AND REACTIVITY

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

**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

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### 11. TOXICOLOGICAL INFORMATION

**General Information:** The information included in this section describes the potential hazards of the individual ingredients.

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

##### **Novobiocin Sodium**

Rat Oral LD 50 3200 mg/kg  
Rat Intravenous LD 50 360mg/kg  
Rat Intraperitoneal LD 50 370mg/kg  
Mouse Oral LD 50 962mg/kg  
Mouse Intraperitoneal LD 50 225mg/kg

##### **Chlorobutanol**

Rat Oral LD50 510 mg/kg

##### **Procaine Penicillin G monohydrate**

Mouse Oral LD50 > 2000 mg/kg  
Rat Intravenous LD50 97mg/kg

**Acute Toxicity Comments:** A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

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

##### **Novobiocin Sodium**

Eye Irritation Rabbit Moderate

##### **Chlorobutanol**

Eye Irritation Rabbit Mild  
Skin Irritation Rabbit Mild

#### Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

##### **Novobiocin Sodium**

Embryo / Fetal Development Rat Oral 40 mg/kg/day NOAEL Not teratogenic  
Reproductive & Fertility Rat Oral 40 mg/kg/day NOAEL No effects at maximum dose

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

##### **Chlorobutanol**

*In Vitro* Bacterial Mutagenicity (Ames) *Salmonella* Positive  
*In Vitro* Micronucleus Mouse Bone Marrow Negative

**Carcinogen Status:** None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

### 12. ECOLOGICAL INFORMATION

**Environmental Overview:** Environmental properties have not been investigated. Releases to the environment should be avoided.

### 13. DISPOSAL CONSIDERATIONS

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Material Name: Albadry Plus (US)  
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### 13. DISPOSAL CONSIDERATIONS

**Disposal Procedures:**

Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

### 14. TRANSPORT INFORMATION

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

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### 15. REGULATORY INFORMATION

EU Symbol: Xn  
EU Indication of danger: Harmful  
Irritant

EU Risk Phrases:  
R42/43 - May cause sensitization by inhalation and skin contact.

EU Safety Phrases:  
S24 - Avoid contact with skin.  
S36/37 - Wear suitable protective clothing and gloves.

OSHA Label:  
WARNING  
May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.  
May cause allergic skin reaction.

#### Canada - WHMIS: Classifications

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



Novobiocin Sodium	
Australia (AICS):	Present
EU EINECS/ELINCS List	216-023-6

Aluminum monostearate	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
EU EINECS/ELINCS List	230-325-5

Chlorobutanol	
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 2
EU EINECS/ELINCS List	Schedule 3
	200-317-6

Procaine Penicillin G monohydrate	
Australia (AICS):	Present

### 16. OTHER INFORMATION

Text of R phrases mentioned in Section 3

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R22 - Harmful if swallowed.

R36 - Irritating to eyes.

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

**Data Sources:** Publicly available toxicity information. Safety data sheets for individual ingredients.

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

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 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



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

### Product Identifier

**Material Name:** Penicillin G Procaine and Novobiocin Sodium Suspension

**Trade Name:** ALBADRY PLUS (R)

**Chemical Family:** Mixture

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

**Intended Use:** Veterinary product used for subclinical mastitis in dry cows only

### 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:** VMIPRecords@zoetis.com

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

## 2. HAZARDS IDENTIFICATION

**Appearance:** Clear, pale yellow, oily liquid

### Classification of the Substance or Mixture

Skin Corrosion/Irritation: Category 2  
Serious Eye Damage/Eye Irritation: Category 2A  
Respiratory Sensitization: Category 1  
Skin Sensitization: Category 1

### EU Classification:

EU Indication of danger: Harmful  
Irritant

EU Symbol: Xn

EU Risk Phrases:  
R38 - Irritating to skin.  
R42/43 - May cause sensitization by inhalation and skin contact.

### Label Elements

**Signal Word:** Danger

**Hazard Statements:**  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H317 - May cause an allergic skin reaction  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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### Precautionary Statements:

P285 - In case of inadequate ventilation wear respiratory protection  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 - Wash hands thoroughly after handling  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P304 + P341 - IF INHALED: If breathing is difficult, remove 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  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P321 - Specific treatment (see supplemental instructions on the administration of antidotes on this label)  
P363 - Wash contaminated clothing before reuse



### Other Hazards

#### Long Term:

#### Known Clinical Effects:

May cause effects on blood and blood forming organs, liver.  
Clinical use of this drug has caused skin rash, loss of hair, blood system changes, Stevens Johnson Syndrome (epidermal necrosis and exfoliative dermatitis), changes in liver function  
Clinical use has caused effects on the gastrointestinal system, including, nausea, vomiting, diarrhea. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

### Australian Hazard Classification (NOHSC):

Non-Hazardous Substance. Non-Dangerous Goods.

### Note:

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Peanut Oil	8002-03-7	232-296-4	Not Listed	Skin Irrit. 2 (H315)	*
Procaine Penicillin G monohydrate	6130-64-9	Not Listed	Xn;R42/43	Resp. Sens. 1 (H334) Skin Sens. 1 (H317)	2

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
Suspension  
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Novobiocin Sodium	1476-53-5	216-023-6	Xi;R36 Xi;43	Eye Irrit. 2A (H319) Skin Sens. 1 (H317)	5
Penicillin G procaine	54-35-3	200-205-7	Xn;R42/43	Resp. Sens. 1,H334; Skin Sens. 1,H317	0

**Additional Information:** 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:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes If irritation occurs or persists, get medical attention.
- Skin Contact:** Remove contaminated clothing and wash exposed area with soap and water. Obtain medical assistance if irritation occurs.
- 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:** No data available
- Medical Conditions Aggravated by Exposure:** People allergic to penicillins may exhibit cross reaction sensitivity.

#### Indication of the Immediate Medical Attention and Special Treatment Needed

- Notes to Physician:** The viruses contained in this vaccine are generally not considered to cause disease in humans.

### 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:** Emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.
- 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.

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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### 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

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

### Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Store in a cool, dry place away from light. Keep out of reach of children.

**Specific end use(s):** No data available

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control Parameters

#### Novobiocin Sodium

Zoetis OEL TWA 8-hr

250µg/m<sup>3</sup>

### Exposure Controls

**Engineering Controls:** Engineering controls should be used as the primary means to control exposures.  
**Personal Protective Equipment:** Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

**Hands:** Rubber gloves

**Eyes:** Not required under normal conditions of use. Wear safety glasses or goggles if eye contact is possible.

**Skin:** Not required for the normal use of this product. Wear protective clothing when working with large quantities.

**Respiratory protection:** Not required for the normal use of this product. 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:** Oil Suspension  
**Odor:** No data available.  
**Molecular Formula:** Mixture

**Color:** Light yellow  
**Odor Threshold:** No data available.  
**Molecular Weight:** Mixture

**Solvent Solubility:** No data available  
**Water Solubility:** No data available  
**pH:** No data available.  
**Melting/Freezing Point (°C):** No data available  
**Boiling Point (°C):** No data available.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Partition Coefficient: (Method, pH, Endpoint, Value)**

No data available

**Novobiocin Sodium**

Predicted N/A Log P 0.78

**Decomposition Temperature (°C):** No data available.

**Evaporation Rate (Gram/s):** No data available

**Vapor Pressure (kPa):** No data available

**Vapor Density (g/ml):** No data available

**Relative Density:** No data available

**Viscosity:** No data available

**Flammability:**

**Autoignition Temperature (Solid) (°C):** No data available

**Flammability (Solids):** No data available

**Flash Point (Liquid) (°C):** No data available

**Upper Explosive Limits (Liquid) (% by Vol.):** No data available

**Lower Explosive Limits (Liquid) (% by Vol.):** No data available

### 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** No data available

**Products:**

### 11. TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects**

**General Information:** The information included in this section describes the potential hazards of the individual ingredients.

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

**Novobiocin Sodium**

Rat Oral LD 50 3200 mg/kg

Rat Para-periosteal LD 50 360mg/kg

Rat Intraperitoneal LD 50 370mg/kg

Mouse Oral LD 50 962mg/kg

Mouse Intraperitoneal LD 50 225mg/kg

**Procaine Penicillin G monohydrate**

Mouse Oral LD50 > 2000 mg/kg

Rat Para-periosteal LD50 97 mg/kg

**Penicillin G procaine**

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM

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### 11. TOXICOLOGICAL INFORMATION

Mouse Oral LD50 > 2000 mg/kg

Rat Oral LD50 > 2000mg/kg

**Acute Toxicity Comments:** A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

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

##### **Novobiocin Sodium**

Eye Irritation Rabbit Moderate

##### **Peanut Oil**

Skin Irritation Rabbit Moderate

#### Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

##### **Novobiocin Sodium**

Embryo / Fetal Development Rat Oral 40 mg/kg/day NOAEL Not teratogenic

Reproductive & Fertility Rat Oral 40 mg/kg/day NOAEL No effects at maximum dose

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

##### **Peanut Oil**

Bacterial Mutagenicity (Ames) *Salmonella* Negative

#### Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

### 12. ECOLOGICAL INFORMATION

**Environmental Overview:** Environmental properties have not been investigated. Releases to the environment should be avoided.

**Toxicity:** No data available

**Persistence and Degradability:** No data available

**Bio-accumulative Potential:** No data available

##### **Novobiocin Sodium**

Predicted N/A Log P 0.78

**Mobility in Soil:** No data available

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### 13. DISPOSAL CONSIDERATIONS

#### Waste Treatment Methods:

Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

### 14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

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

### 15. REGULATORY INFORMATION

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

#### Canada - WHMIS: Classifications

##### WHMIS hazard class:

Class D, Division 2, Subdivision A

Class D, Division 2, and Subdivision B.



#### Peanut Oil

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	232-296-4

#### Procaine Penicillin G monohydrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

#### Novobiocin Sodium

CERCLA/SARA 313 Emission reporting	Not Listed
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### 15. REGULATORY INFORMATION

California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	216-023-6

#### Penicillin G procaine

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Inventory - United States TSCA - Sect. 8(b)	Present
Australia (AICS):	Present
Standard for the Uniform Scheduling for Drugs and Poisons:	Schedule 4
EU EINECS/ELINCS List	200-205-7

### 16. OTHER INFORMATION

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

H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H317 - May cause an allergic skin reaction  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Xn - Harmful

R38 - Irritating to skin.  
R42 - May cause sensitization by inhalation.  
R43 - May cause sensitization by skin contact.

**Data Sources:** The data contained in this MSDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

**Reasons for Revision:** Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 4 - First Aid Measures. Updated Section 15 - Regulatory Information.

**Prepared by:** Toxicology and Hazard Communication  
Zoetis Global Risk Management

Zoetis 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 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-Jun-2014

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

### Product Identifier

**Material Name:** Penicillin G Procaine and Novobiocin Sodium Suspension

**Trade Name:** ALBADRY PLUS®, NOVODRY PLUS®

**Synonyms:** Albadry Plus Suspension; Novodry Plus Suspension

**Chemical Family:** Mixture

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

**Intended Use:** Veterinary product used for subclinical mastitis in dry cows only

**Restrictions on Use:** Not for human use

### Details of the Supplier of the Safety Data Sheet

Zoetis Inc.  
100 Campus Drive, P.O. Box 651  
Florham Park, New Jersey 07932 (USA)  
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:** Clear, pale yellow, oily liquid

### Classification of the Substance or Mixture

Skin Corrosion/Irritation: Category 2  
Respiratory Sensitization: Category 1  
Skin Sensitization: Category 1

### EU Classification:

EU Indication of danger: Harmful  
Irritant

EU Symbol: Xn

EU Risk Phrases:  
R38 - Irritating to skin.  
R42/43 - May cause sensitization by inhalation and skin contact.

### Label Elements

**Signal Word:** Danger

**Hazard Statements:**  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
Suspension  
Revision date: 17-Jun-2014

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### Precautionary Statements:

P285 - In case of inadequate ventilation wear respiratory protection  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 - Wash hands thoroughly after handling  
P272 - Contaminated work clothing should not be allowed out of the workplace  
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  
P501 - Dispose of contents/container in accordance with all local and national regulations



### Other Hazards

Short Term:

Long Term:

Known Clinical Effects:

May cause eye irritation

May cause effects on blood and blood forming organs, liver.

Clinical use of this drug has caused skin rash, loss of hair, blood system changes, Stevens Johnson Syndrome (epidermal necrosis and exfoliative dermatitis), changes in liver function. Clinical use has caused effects on the gastrointestinal system, including nausea, vomiting, diarrhea. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

Hazardous Substance. Non-Dangerous Goods.

Australian Hazard Classification  
(NOHSC):

### Note:

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Peanut Oil	8002-03-7	232-296-4	Xi; R38	Skin Irrit. 2 (H315)	93
Novobiocin Sodium	1476-53-5	216-023-6	Xi; R36 Xi; 43	Eye Irrit. 2A (H319) Skin Sens. 1 (H317)	5
Procaine Penicillin G monohydrate	6130-64-9	Not Listed	Xn; R42/43	Resp. Sens. 1 (H334) Skin Sens. 1 (H317)	2

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
Suspension  
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**Additional Information:** 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:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation occurs or persists, get medical attention.

**Skin Contact:** Remove contaminated clothing and wash exposed area with soap and water. Obtain medical assistance if irritation occurs.

**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:** People allergic to penicillins may exhibit cross reaction sensitivity.

#### Indication of the Immediate Medical Attention and Special Treatment Needed

**Notes to Physician:** None

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** Extinguish fires with CO<sub>2</sub>, extinguishing powder, foam, or water.

#### Special Hazards Arising from the Substance or Mixture

**Hazardous Combustion Products:** Emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.

**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.

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
Suspension  
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### 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

Use with adequate ventilation. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Avoid accidental injection. Wash thoroughly after handling. When handling, use proper personal protective equipment as specified in Section 8. Prevent environmental releases. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

#### Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Store in a cool, dry place away from light. Keep out of reach of children.

**Specific end use(s):** Veterinary product for the treatment of subclinical mastitis in dry cows only

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

#### Novobiocin Sodium

**Zoetis OEL TWA 8-hr** 250 µg/m<sup>3</sup>, Sensitizer

#### Procaine Penicillin G monohydrate

**Zoetis OEB** OEB 2 - Sensitizer (control exposure to the range of 100ug/m<sup>3</sup> to < 1000ug/m<sup>3</sup>, provide additional precautions to protect from skin contact)

#### Exposure Controls

**Engineering Controls:** Engineering controls should be used as the primary means to control exposures. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits or within the OEB range.

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Oil Suspension  
**Odor:** No data available.  
**Molecular Formula:** Mixture

**Color:** Light yellow  
**Odor Threshold:** No data available.  
**Molecular Weight:** Mixture

**Solvent Solubility:** No data available  
**Water Solubility:** No data available  
**pH:** No data available.  
**Melting/Freezing Point (°C):** No data available

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
Suspension  
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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point (°C):** No data available.

**Partition Coefficient: (Method, pH, Endpoint, Value)**

No data available

**Novobiocin Sodium**

Predicted N/A Log P 0.78

**Decomposition Temperature (°C):** No data available.

**Evaporation Rate (Gram/s):** No data available

**Vapor Pressure (kPa):** No data available

**Vapor Density (g/ml):** No data available

**Relative Density:** No data available

**Viscosity:** No data available

**Flammability:**

**Autoignition Temperature (Solid) (°C):** No data available

**Flammability (Solids):** No data available

**Flash Point (Liquid) (°C):** No data available

**Upper Explosive Limits (Liquid) (% by Vol.):** No data available

**Lower Explosive Limits (Liquid) (% by Vol.):** No data available

### 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 information included in this section describes the potential hazards of the individual ingredients.

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

**Procaine Penicillin G monohydrate**

Mouse Oral LD50 > 2000 mg/kg

Rat Para-periosteal LD50 97 mg/kg

**Novobiocin Sodium**

Rat Oral LD 50 3200 mg/kg

Rat Para-periosteal LD 50 360mg/kg

Rat Intraperitoneal LD 50 370mg/kg

Mouse Oral LD 50 962mg/kg

Mouse Intraperitoneal LD 50 225mg/kg

**Acute Toxicity Comments:** A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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### 11. TOXICOLOGICAL INFORMATION

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

##### **Novobiocin Sodium**

Eye Irritation    Rabbit    Moderate

##### **Peanut Oil**

Skin Irritation    Rabbit    Moderate

#### Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

##### **Novobiocin Sodium**

Embryo / Fetal Development    Rat    Oral    40 mg/kg/day    NOAEL    Not teratogenic

Reproductive & Fertility    Rat    Oral    40 mg/kg/day    NOAEL    No effects at maximum dose

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

##### **Peanut Oil**

Bacterial Mutagenicity (Ames)    *Salmonella*    Negative

#### Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

### 12. ECOLOGICAL INFORMATION

#### **Environmental Overview:**

Environmental properties have not been investigated. Releases to the environment should be avoided.

#### **Toxicity:**

No data available

#### **Persistence and Degradability:**

No data available

#### **Bio-accumulative Potential:**

No data available

##### **Novobiocin Sodium**

Predicted    N/A    Log P    0.78

#### **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.

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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### 14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

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

### 15. REGULATORY INFORMATION

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

#### Canada - WHMIS: Classifications

##### WHMIS hazard class:

Class D, Division 2, Subdivision A

Class D, Division 2, and 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.



#### Peanut Oil

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	232-296-4

#### Novobiocin Sodium

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	216-023-6

#### Procaine Penicillin G monohydrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

### 16. OTHER INFORMATION

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

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM



## SAFETY DATA SHEET

**Material Name:** Penicillin G Procaine and Novobiocin Sodium  
**Suspension**  
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Skin corrosion/irritation-Cat.2; H315 - Causes skin irritation  
Serious eye damage/eye irritation-Cat.2A; H319 - Causes serious eye irritation  
Sensitization, skin-Cat.1; H317 - May cause an allergic skin reaction  
Sensitization, respiratory-Cat.1; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Xn - Harmful  
Xi - Irritant

R38 - Irritating to skin.  
R36 - Irritating to eyes.  
R43 - May cause sensitization by skin contact.  
R42/43 - May cause sensitization by inhalation and skin contact.

**Data Sources:** The data contained in this MSDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

**Reasons for Revision:** Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking. Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 4 - First Aid 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



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

### Product Identifier

**Material Name:** Penicillin G Procaine and Novobiocin Sodium Suspension

**Trade Name:** ALBADRY PLUS®, NOVODRY PLUS®

**Synonyms:** Albadry Plus Suspension; Novodry Plus Suspension

**Chemical Family:** Mixture

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

**Intended Use:** Veterinary product used for subclinical mastitis in dry cows only

**Restrictions on Use:** Not for human use

### Details of the Supplier of the Safety Data Sheet

Zoetis Inc.  
100 Campus Drive, P.O. Box 651  
Florham Park, New Jersey 07932 (USA)  
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:** Clear, pale yellow, oily liquid

### Classification of the Substance or Mixture

Skin Corrosion/Irritation: Category 2  
Respiratory Sensitization: Category 1  
Skin Sensitization: Category 1

### EU Classification:

EU Indication of danger: Harmful  
Irritant

EU Symbol: Xn

EU Risk Phrases:  
R38 - Irritating to skin.  
R42/43 - May cause sensitization by inhalation and skin contact.

### Label Elements

**Signal Word:** Danger

**Hazard Statements:**  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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### Precautionary Statements:

P285 - In case of inadequate ventilation wear respiratory protection  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 - Wash hands thoroughly after handling  
P272 - Contaminated work clothing should not be allowed out of the workplace  
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  
P501 - Dispose of contents/container in accordance with all local and national regulations



### Other Hazards

Short Term:

Long Term:

Known Clinical Effects:

May cause eye irritation

May cause effects on blood and blood forming organs, liver.

Clinical use of this drug has caused skin rash, loss of hair, blood system changes, Stevens Johnson Syndrome (epidermal necrosis and exfoliative dermatitis), changes in liver function. Clinical use has caused effects on the gastrointestinal system, including nausea, vomiting, diarrhea. Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

Hazardous Substance. Non-Dangerous Goods.

Australian Hazard Classification  
(NOHSC):

### Note:

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Hazardous

Ingredient	CAS Number	EU EINECS/ELINCS List	EU Classification	GHS Classification	%
Peanut Oil	8002-03-7	232-296-4	Xi; R38	Skin Irrit. 2 (H315)	93
Novobiocin Sodium	1476-53-5	216-023-6	Xi; R36 Xi; 43	Eye Irrit. 2A (H319) Skin Sens. 1 (H317)	5
Procaine Penicillin G monohydrate	6130-64-9	Not Listed	Xn; R42/43	Resp. Sens. 1 (H334) Skin Sens. 1 (H317)	2

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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**Additional Information:** 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:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation occurs or persists, get medical attention.

**Skin Contact:** Remove contaminated clothing and wash exposed area with soap and water. Obtain medical assistance if irritation occurs.

**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:** People allergic to penicillins may exhibit cross reaction sensitivity.

#### Indication of the Immediate Medical Attention and Special Treatment Needed

**Notes to Physician:** None

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media:** Extinguish fires with CO<sub>2</sub>, extinguishing powder, foam, or water.

#### Special Hazards Arising from the Substance or Mixture

**Hazardous Combustion Products:** Emits toxic fumes of carbon monoxide, carbon dioxide, and nitrogen oxides.

**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.

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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### 7. HANDLING AND STORAGE

#### Precautions for Safe Handling

Use with adequate ventilation. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Avoid accidental injection. Wash thoroughly after handling. When handling, use proper personal protective equipment as specified in Section 8. Prevent environmental releases. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls.

#### Conditions for Safe Storage, Including any Incompatibilities

**Storage Conditions:** Store in a cool, dry place away from light. Keep out of reach of children.

**Specific end use(s):** Veterinary product for the treatment of subclinical mastitis in dry cows only

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Control Parameters

Refer to available public information for specific member state Occupational Exposure Limits.

#### Novobiocin Sodium

**Zoetis OEL TWA 8-hr** 250 µg/m<sup>3</sup>, Sensitizer

#### Procaine Penicillin G monohydrate

**Zoetis OEB** OEB 2 - Sensitizer (control exposure to the range of 100ug/m<sup>3</sup> to < 1000ug/m<sup>3</sup>, provide additional precautions to protect from skin contact)

#### Exposure Controls

**Engineering Controls:** Engineering controls should be used as the primary means to control exposures. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits or within the OEB range.

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

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Oil Suspension  
**Odor:** No data available.  
**Molecular Formula:** Mixture

**Color:** Light yellow  
**Odor Threshold:** No data available.  
**Molecular Weight:** Mixture

**Solvent Solubility:** No data available  
**Water Solubility:** No data available  
**pH:** No data available.  
**Melting/Freezing Point (°C):** No data available

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM

## SAFETY DATA SHEET

Material Name: Penicillin G Procaine and Novobiocin Sodium  
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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point (°C):** No data available.

**Partition Coefficient: (Method, pH, Endpoint, Value)**

No data available

**Novobiocin Sodium**

Predicted N/A Log P 0.78

**Decomposition Temperature (°C):** No data available.

**Evaporation Rate (Gram/s):** No data available

**Vapor Pressure (kPa):** No data available

**Vapor Density (g/ml):** No data available

**Relative Density:** No data available

**Viscosity:** No data available

**Flammability:**

**Autoignition Temperature (Solid) (°C):** No data available

**Flammability (Solids):** No data available

**Flash Point (Liquid) (°C):** No data available

**Upper Explosive Limits (Liquid) (% by Vol.):** No data available

**Lower Explosive Limits (Liquid) (% by Vol.):** No data available

### 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 information included in this section describes the potential hazards of the individual ingredients.

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

**Procaine Penicillin G monohydrate**

Mouse Oral LD50 > 2000 mg/kg

Rat Para-periosteal LD50 97 mg/kg

**Novobiocin Sodium**

Rat Oral LD 50 3200 mg/kg

Rat Para-periosteal LD 50 360mg/kg

Rat Intraperitoneal LD 50 370mg/kg

Mouse Oral LD 50 962mg/kg

Mouse Intraperitoneal LD 50 225mg/kg

**Acute Toxicity Comments:** A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM

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### 11. TOXICOLOGICAL INFORMATION

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

##### **Novobiocin Sodium**

Eye Irritation    Rabbit    Moderate

##### **Peanut Oil**

Skin Irritation    Rabbit    Moderate

#### Reproduction & Developmental Toxicity: (Study Type, Species, Route, Dose, End Point, Effect(s))

##### **Novobiocin Sodium**

Embryo / Fetal Development    Rat    Oral    40 mg/kg/day    NOAEL    Not teratogenic

Reproductive & Fertility    Rat    Oral    40 mg/kg/day    NOAEL    No effects at maximum dose

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

##### **Peanut Oil**

Bacterial Mutagenicity (Ames)    *Salmonella*    Negative

#### Carcinogen Status:

None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

### 12. ECOLOGICAL INFORMATION

#### **Environmental Overview:**

Environmental properties have not been investigated. Releases to the environment should be avoided.

#### **Toxicity:**

No data available

#### **Persistence and Degradability:**

No data available

#### **Bio-accumulative Potential:**

No data available

##### **Novobiocin Sodium**

Predicted    N/A    Log P    0.78

#### **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.

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### 14. TRANSPORT INFORMATION

The following refers to all modes of transportation unless specified below.

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

### 15. REGULATORY INFORMATION

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

#### Canada - WHMIS: Classifications

##### WHMIS hazard class:

Class D, Division 2, Subdivision A

Class D, Division 2, and 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.



#### Peanut Oil

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	232-296-4

#### Novobiocin Sodium

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	216-023-6

#### Procaine Penicillin G monohydrate

CERCLA/SARA 313 Emission reporting	Not Listed
California Proposition 65	Not Listed
Australia (AICS):	Present
EU EINECS/ELINCS List	Not Listed

### 16. OTHER INFORMATION

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

PENICILLIN G PROCAINE AND NOVOBIOCIN SODIUM



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Skin corrosion/irritation-Cat.2; H315 - Causes skin irritation  
Serious eye damage/eye irritation-Cat.2A; H319 - Causes serious eye irritation  
Sensitization, skin-Cat.1; H317 - May cause an allergic skin reaction  
Sensitization, respiratory-Cat.1; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Xn - Harmful  
Xi - Irritant

R38 - Irritating to skin.  
R36 - Irritating to eyes.  
R43 - May cause sensitization by skin contact.  
R42/43 - May cause sensitization by inhalation and skin contact.

**Data Sources:** The data contained in this MSDS may have been gathered from confidential internal sources, raw material suppliers, or from the published literature.

**Reasons for Revision:** Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking. Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 4 - First Aid 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

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**End of Safety Data Sheet**