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

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Material Name: NEOSPORIN Ophthalmic Solution Sterile (neomycin and polymyxin B sulfates and gramicidin ophthalmic solution, USP)

Trade Name: NEOSPORIN

Synonyms: Neomycin and polymyxin B sulfates and gramicidin ophthalmic solution, USP

Chemical Family: Not applicable

Intended Use: Pharmaceutical product used as antibiotic agent

### 2. HAZARDS IDENTIFICATION

**Appearance:** Aqueous sterile solution

Statement of Hazard: Non-hazardous in accordance with international standards for workplace safety.

**Additional Hazard Information:** 

**Short Term:** May be harmful if swallowed. May cause allergic reaction (based on components). **Long Term:** Repeat-dose studies in animals have shown a potential to cause adverse effects on

developing fetus (based on components) .

EU Indication of danger: Not classified

Australian Hazard Classification (NOHSC):

Non-Hazardous Substance. Non-Dangerous Goods.

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

require the inclusion of all known hazards of the 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.

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# 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous

Ingredient	CAS Number	<b>EU EINECS/ELINCS List</b>	<b>EU Classification</b>	%
Alcohol	64-17-5	200-578-6	F;R11	0.5
Gramicidin	1405-97-6	215-790-4	Not Listed	<0.1
Neomycin Sulfate	1405-10-3	215-773-1	Xn;R42/43 Repr.Cat.3;R63	<1.0
Polymyxin B sulfate	1405-20-5	215-774-7	Xn;R22 Xn;R42/43	<1.0
Propylene glycol	57-55-6	200-338-0	Not Listed	*
Thimerosal	54-64-8	200-210-4	N; R50/53 R33 T+; R26/27/28	0.01

Ingredient	CAS Number	<b>EU EINECS/ELINCS List</b>	<b>EU Classification</b>	%
Polyoxyethylene-polyoxypropylene block	106392-12-5	Not Listed	Not Listed	*
copolymer				
Sodium chloride	7647-14-5	231-598-3	Not Listed	*
Water for injection	7732-18-5	231-791-2	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: If irritation occurs or persists, get medical attention. Remove clothing and wash affected skin

with soap and water.

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

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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

Health and Safety Precautions: Personnel involved in clean-up should wear appropriate personal protective equipment (see

Section 8). Minimize exposure.

Measures for Cleaning / Collecting: Absorb spills with non-combustible absorbent material and transfer into a labeled container for

disposal.

**Measures for Environmental** 

**Protections:** 

Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to

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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: Use adequate ventilation. Avoid contact with eyes, skin and clothing. When handling, use

appropriate personal protective equipment (see Section 8). Wash thoroughly after handling. 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 as directed by product packaging.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

#### Alcohol

ACGIH Threshold Limit Value (STEL)

Australia TWA

1000 ppm

1880 mg/m³

Austria OEL - MAKs

1000 ppm

1900 mg/m<sup>3</sup> **Belgium OEL - TWA**1000 ppm

 1907 mg/m³

 Bulgaria OEL - TWA
 1000.0 mg/m³

 Czech Republic OEL - TWA
 1000 mg/m³

 Denmark OEL - TWA
 1000 ppm

1900 mg/m<sup>3</sup>

**Estonia OEL - TWA**500 ppm
1000 mg/m³ **Finland OEL - TWA**1000 ppm

France OEL - TWA

1900 mg/m<sup>3</sup>

1000 ppm
1900 mg/m<sup>3</sup>

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Germany - TRGS 900 - TWAs	500 ppm		
•	960 mg/m³		
Germany (DFG) - MAK	500 ppm		
• • •	960 mg/m <sup>3</sup>		
Greece OEL - TWA	1000 ppm		
	1900 mg/m <sup>3</sup>		
Hungary OEL - TWA	1900 mg/m <sup>3</sup>		
Latvia OEL - TWA	1000 mg/m³		
Lithuania OEL - TWA	500 ppm		
	1000 mg/m <sup>3</sup>		
Netherlands OEL - TWA	260 mg/m <sup>3</sup>		
OSHA - Final PELS - TWAs:	1000 ppm		
	1900 mg/m³		
Poland OEL - TWA	1900 mg/m <sup>3</sup>		
Portugal OEL - TWA	1000 ppm		
Romania OEL - TWA	1000 ppm		
	1900 mg/m³		
Slovakia OEL - TWA	500 ppm		
	960 mg/m <sup>3</sup>		
Slovenia OEL - TWA	1000 ppm		
	1900 mg/m <sup>3</sup>		
Spain OEL - TWA	1000 ppm		
	1910 mg/m³		
Sweden OEL - TWAs	500 ppm		
	1000 mg/m³		
Neomycin Sulfate			
Pfizer OEL TWA-8 Hr:	100 μg/m³, Sensitizer		
Propylone alycel			
Propylene glycol	450		
Australia TWA	150 ppm 474 mg/m³		
	474 mg/m <sup>3</sup>		
Inclair d OEL TIMA	10 mg/m²		

**Ireland OEL - TWAs** 

150 ppm 470 mg/m<sup>3</sup>

10 mg/m<sup>3</sup>  $7 \text{ mg/m}^3$  $7 \text{ mg/m}^3$ 

Latvia OEL - TWA Lithuania OEL - TWA

Sodium chloride

Latvia OEL - TWA 5 mg/m<sup>3</sup> 5 mg/m<sup>3</sup> Lithuania OEL - TWA

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.

#### Gramicidin

Pfizer Occupational Exposure Default (control exposure to the range of 1ug/m³ to <10ug/m³) Band (OEB):

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Polymyxin B sulfate

**Engineering Controls:** 

Pfizer Occupational Exposure OEB 2 - Sensitizer (control exposure to the range of 100ug/m³ to < 1000ug/m³, provide

additional precautions to protect from skin contact)

Band (OEB):

General room ventilation is adequate unless the process generates dust, mist or fumes. Local

and general ventilation should be used as necessary, when handling this material in bulk. Refer to specific Member State legislation for requirements under Community environmental

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Environmental Exposure Controls: Refer to

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.

Skin: Impervious protective clothing is recommended if skin contact with drug product is possible and

for bulk processing operations.

Respiratory protection: If airborne exposures are within or exceed the Occupational Exposure Band (OEB) range, wear

an appropriate respirator with a protection factor sufficient to control exposures to the bottom of

the OEB range.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Sterile solution Color: No data available.

Molecular Formula: Mixture Molecular Weight: Mixture

Polymerization: Will not occur

### 10. STABILITY AND REACTIVITY

**Chemical 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

### 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)

**Thimerosal** 

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

Propylene glycol

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Mouse Oral LD50 22,000 mg/kg Rat Oral LD50 20,000 mg/kg Rabbit Dermal LD50 20,800 mg/kg

### **Neomycin Sulfate**

Rat Oral LD 50 2750 mg/kg

Mouse Oral LD 50 2880 mg/kg

Mouse Intraperitoneal LD 50 116 mg/kg

Rat Subcutaneous LD 50 633 mg/kg

Mouse Subcutaneous LD 50 275 mg/kg

#### Polymyxin B sulfate

Mouse Oral LD50 790 mg/kg Rat SC LD50 50 mg/kg Rat IV LD50 3.98 mg/kg

#### **Alcohol**

Rat Inhalation LC50 20,000 mg/L

### Polyoxyethylene-polyoxypropylene block copolymer

Rat Para-periosteal LD50 > 320 mg/kg Mouse Para-periosteal LD50 129 mg/kg Rat Oral LD50 9380 mg/kg

### Sodium chloride

Rat Oral LD50 3000 mg/kg Mouse Oral LD50 4000 mg/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)

### **Thimerosal**

Eye Irritation Rabbit Mild

#### Propylene glycol

Skin Irritation Rabbit Mild Eye Irritation Rabbit Mild

### **Neomycin Sulfate**

Skin Irritation Rabbit Moderate Eye Irritation Rabbit Minimal

### **Alcohol**

Eye Irritation Rabbit Severe

### Polyoxyethylene-polyoxypropylene block copolymer

Eye Irritation Rabbit Mild Skin Irritation Rabbit Mild

## Sodium chloride

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Eye Irritation Rabbit Moderate Skin Irritation Rabbit Mild

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

### **Neomycin Sulfate**

6 Week(s) Dog Oral 100 mg/kg/day NOAEL No effects at maximum dose

3 Month(s) Guinea Pig Oral 10 mg/kg/day NOAEL No effects at maximum dose

3 Month(s) Dog Subcutaneous 20 mg/kg/day LOAEL Kidney

12 Month(s) Cat Oral 12 mg/kg/day NOAEL Blood forming organs

3 Month(s) Guinea Pig Subcutaneous 10 mg/kg/day LOAEL Kidney

### Polymyxin B sulfate

9 Day(s) Mouse Subcutaneous 284 mg/kg LOAEL Skin

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

### **Neomycin Sulfate**

Reproductive & Fertility 4000 mg/L NOAEL No effects at maximum dose Mouse Oral 2 Generation Reproductive Toxicity Rat Oral 25 mg/kg/day NOAEL Fetotoxicity Reproductive & Fertility Rat Oral 25 mg/kg/day NOAEL No effects at maximum dose

Prenatal & Postnatal Development Rat Subcutaneous 6 mg/kg/day LOAEL Developmental toxicity

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

### **Neomycin Sulfate**

Bacterial Mutagenicity (Ames) Salmonella, E. coli Negative

Mammalian Cell Mutagenicity Chinese Hamster Ovary (CHO) cells Negative

In Vivo Cytogenetics Mouse Negative

In Vitro Chromosome Aberration Human Lymphocytes Positive

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

### **Neomycin Sulfate**

2 Year(s) Rat Oral 25 mg/kg/day NOAEL Not carcinogenic

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

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

**Alcohol** 

IARC: Group 1 (Carcinogenic to Humans)

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.

## Aquatic Toxicity: (Species, Method, End Point, Duration, Result)

#### **Neomycin Sulfate**

Daphnia magna (Water Flea) OECD EC50 48 Hours 68 mg/L Salmo gairdneri (Trout) OECD NOEC 96 Hours >1000 mg/L

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## 12. ECOLOGICAL INFORMATION

Bacterial Inhibition: (Inoculum, Method, End Point, Result)

**Neomycin Sulfate** 

Activated sludge OECD EC50 3 Hours 399 mg/L

### 13. DISPOSAL CONSIDERATIONS

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

specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. This product contains trace quantities of mercury and may qualify as a RCRA Hazardous Waste. Status should be confirmed using the EPA Toxicity Characteristic Leaching Procedure (TCLP).

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## 14. TRANSPORT INFORMATION

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

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

### 15. REGULATORY INFORMATION

**EU Symbol:** Not classified **EU Indication of danger:** Not classified

#### **OSHA Label:**

Non-hazardous in accordance with international standards for workplace safety.

#### Canada - WHMIS: Classifications

### WHMIS hazard class:

None required

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

#### **Alcohol**

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15. REGULATORY INFORMATION

California Proposition 65 carcinogen initial date 4/29/11

developmental toxicity initial date 10/1/87

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Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

Present

EU EINECS/ELINCS List

200-578-6

Gramicidin

Australia (AICS): Present
Standard for the Uniform Scheduling Schedule 4

for Drugs and Poisons:

EU EINECS/ELINCS List 215-790-4

**Neomycin Sulfate** 

California Proposition 65 developmental toxicity initial date 10/1/92

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

Present

Present

215-773-1

Polymyxin B sulfate

Australia (AICS): Present EU EINECS/ELINCS List 215-774-7

Polyoxyethylene-polyoxypropylene block copolymer

Australia (AICS): Present

Propylene glycol

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

EU EINECS/ELINCS List

Present
200-338-0

Sodium chloride

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

EU EINECS/ELINCS List

Present
231-598-3

**Thimerosal** 

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

EU EINECS/ELINCS List

Present
200-210-4

Water for injection

Inventory - United States TSCA - Sect. 8(b)

Australia (AICS):

REACH - Annex IV - Exemptions from the

Present

Present

obligations of Register:

EU EINECS/ELINCS List 231-791-2

Additional Information: White petrolatum is not classified as a carcinogen. Nota N applies since the full refining history

is known and it can be shown that the substances from which the petroleum jelly was produced

are not a carcinogen.

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## 16. OTHER INFORMATION

### Text of R phrases mentioned in Section 3

R22 - Harmful if swallowed.

R63 - Possible risk of harm to the unborn child.

R33 - Danger of cumulative effects.

R11 - Highly flammable.

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

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

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

**Data Sources:** Pfizer proprietary drug development information. Safety data sheets for individual ingredients.

Prepared by: Product Stewardship 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**