

SAFETY DATA SHEET



Revision date: 16-Dec-2013

Version: 2.0

Page 1 of 8

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

Product Identifier

Material Name: Aureomycin ® 90 Meal

Trade Name: Aureomycin
Chemical Family: Mixture

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against Intended Use: Feed additive

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: Brown powder

Classification of the Substance or Mixture

GHS - Classification

Reproductive Toxicity: Category 1A

US OSHA Specific - Classification

Physical Hazard: Combustible Dust

EU Classification:

EU Indication of danger: Toxic

EU Symbol: T
R60 - May impair fertility.
R61 - May cause harm to the unborn child.

Label Elements

Signal Word: Danger
Hazard Statements: H360 - May damage fertility or the unborn child
May form combustible dust concentrations in air

SAFETY DATA SHEET

Material Name: Aureomycin ® 90 Meal
Revision date: 16-Dec-2013

Page 2 of 8
Version: 2.0

Precautionary Statements:

- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P201 - Obtain special instructions before use
- P202 - Do not handle until all safety precautions have been read and understood
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- 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, skin and respiratory tract irritation

Long Term:

May cause blood, respiratory, kidney, and liver disorders.

Australian Hazard Classification (NOHSC):

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 | % |
|-------------------|------------|-----------------------|-------------------|----------------------------|-------|
| Chlortetracycline | 57-62-5 | 200-341-7 | Repr. Cat.1;R61 | Repro. Tox. Cat. 1A (H360) | 82-86 |
| Mineral oil | 8012-95-1 | 232-384-2 | Not Listed | Not Listed | 0-5 |

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:

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.

SAFETY DATA SHEET

Material Name: Aureomycin © 90 Meal
Revision date: 16-Dec-2013

Page 3 of 8
Version: 2.0

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: | Breathing dust may worsen asthma symptoms. |

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. Dust can form an explosive mixture in air.

Advice for Fire-Fighters

Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear.

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. Avoid dust formation.

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: Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. Contain the source of spill if it is safe to do so. Collect spilled material by a method that controls dust generation. A damp cloth or a filtered vacuum should be used to clean spills of dry solids. Clean spill area thoroughly.

Additional Consideration for Large Spills: Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding procedures. 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

Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Minimize dust generation and accumulation. Use with adequate ventilation. Wash thoroughly after handling. Prevent environmental releases. Use appropriate personal protective equipment.

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions: Store at room temperature in properly labeled containers. Keep away from heat, sparks and flames.

Specific end use(s): No data available

SAFETY DATA SHEET

Material Name: Aureomycin © 90 Meal
Revision date: 16-Dec-2013

Page 4 of 8
Version: 2.0

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters

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

Chlortetracycline

| | |
|---------------------|-----------------------|
| Zoetis OEL TWA 8-hr | 0.5 mg/m ³ |
| Latvia OEL - TWA | 0.1 mg/m ³ |

Mineral oil

| | |
|-----------------------------------|-----------------------|
| ACGIH Threshold Limit Value (TWA) | 5 mg/m ³ |
| Australia TWA | 5 mg/m ³ |
| Belgium OEL - TWA | 5 mg/m ³ |
| Bulgaria OEL - TWA | 5.0 mg/m ³ |
| Czech Republic OEL - TWA | 5 mg/m ³ |
| Denmark OEL - TWA | 1 mg/m ³ |
| Finland OEL - TWA | 5 mg/m ³ |
| Greece OEL - TWA | 5 mg/m ³ |
| Lithuania OEL - TWA | 1 mg/m ³ |
| Netherlands OEL - TWA | 5 mg/m ³ |
| Vietnam OEL - TWAs | 5 mg/m ³ |
| OSHA - Final PELs - TWAs: | 5 mg/m ³ |
| Poland OEL - TWA | 5 mg/m ³ |
| Portugal OEL - TWA | 5 mg/m ³ |
| Romania OEL - TWA | 5 mg/m ³ |
| Slovakia OEL - TWA | 5 ppm |
| | 1 mg/m ³ |
| | 5 mg/m ³ |
| Spain OEL - TWA | 5 mg/m ³ |
| Sweden OEL - TWAs | 1 mg/m ³ |

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.

Personal Protective Equipment:

Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE).

Hands:

Wear impervious gloves if skin contact is possible.

Eyes:

Safety glasses or goggles

Skin:

Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.

Respiratory protection:

If the applicable Occupational Exposure Limit (OEL) is exceeded, wear an appropriate respirator with a protection factor sufficient to control exposures to below the OEL.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------------------|-------------------|--------------------------|--------------------|
| Physical State: | Solid powder | Color: | Brown |
| Odor: | Fermentation odor | Odor Threshold: | No data available. |
| Molecular Formula: | Mixture | Molecular Weight: | Mixture |
| Solvent Solubility: | No data available | | |
| Water Solubility: | No data available | | |

SAFETY DATA SHEET

Material Name: Aureomycin ® 90 Meal
Revision date: 16-Dec-2013

Page 5 of 8
Version: 2.0

9. PHYSICAL AND CHEMICAL PROPERTIES

pH: No data available.
Melting/Freezing Point (°C): No data available
Boiling Point (°C): No data available.
Partition Coefficient: (Method, pH, Endpoint, Value)
No data available
Decomposition Temperature (°C): No data available.
Evaporation Rate (Gram/s): No data available
Vapor Pressure (kPa): No data available
Vapor Density (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. Keep away from heat, spark, flames and all other sources of ignition.
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 investigated. The following information is available for the individual ingredients. The information in this section describes the hazards of various forms of the active ingredient.

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

Chlortetracycline

Rat Oral LD50 3000 mg/kg

Oxytetracycline

Mouse Oral LD50 > 5200 mg/kg

Rat Oral LD50 4800mg/kg

Mouse Subcutaneous LD50 > 3500mg/kg

Mineral oil

Eye Irritation Rabbit Moderate

SAFETY DATA SHEET

Material Name: Aureomycin © 90 Meal
Revision date: 16-Dec-2013

Page 6 of 8
Version: 2.0

11. TOXICOLOGICAL INFORMATION

Skin Irritation Rabbit Mild

Chlortetracycline

6 Week(s) Mouse Oral 100 mg/kg/day NOAEL No effects at maximum dose
14 Week(s) Mouse Oral 200 mg/kg/day NOAEL No effects at maximum dose
14 Week(s) Rat Oral 200 mg/kg/day NOAEL No effects at maximum dose

Chlortetracycline

2 Generation Reproductive Toxicity Rat Oral 500 mg/kg/day NOAEL Negative

Oxytetracycline

Embryo / Fetal Development Rat Oral 100 mg/kg/day NOAEL No effects at maximum dose
Embryo / Fetal Development Rat Intramuscular 41.5 mg/kg/day NOAEL No effects at maximum dose
Embryo / Fetal Development Rabbit Intramuscular 41.5 mg/kg/day LOEL Embryotoxicity
Embryo / Fetal Development Dog Intramuscular 20.75 mg/kg/day LOEL Embryotoxicity, Teratogenic

Chlortetracycline

In Vitro Bacterial Mutagenicity (Ames) *Salmonella*, *E. coli* Negative
In Vitro HGPRT Forward Gene Mutation Assay Chinese Hamster Ovary (CHO) cells Negative
In Vitro Unscheduled DNA Synthesis Rat Hepatocyte Negative
In Vivo Chromosome Aberration Rat Negative

Oxytetracycline

Bacterial Mutagenicity (Ames) *Salmonella* Negative
Mammalian Cell Mutagenicity Mouse Lymphoma Positive with activation
In Vitro Chromosome Aberration Chinese Hamster Ovary (CHO) cells Negative
Sister Chromatid Exchange Chinese Hamster Ovary (CHO) cells Negative
Micronucleus Mouse Negative

Chlortetracycline

2 Year(s) Rat Oral 700 mg/kg/day NOAEL Not carcinogenic

Oxytetracycline

103 Week(s) Rat Oral, in feed 2094 mg/kg/day NOEL Not carcinogenic

Carcinogen Status:

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

SAFETY DATA SHEET

Material Name: Aureomycin ® 90 Meal
Revision date: 16-Dec-2013

Page 7 of 8
Version: 2.0

12. ECOLOGICAL INFORMATION

| | |
|--|--|
| Environmental Overview: | Environmental properties have not been thoroughly investigated. Releases to the environment should be avoided. |
| Toxicity: | No data available |
| Oxytetracycline <i>Oncorhynchus mykiss</i> (Rainbow Trout) | LC50 96 Hours < 200 mg/L |
| 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. |
|---------------------------------|---|

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



SAFETY DATA SHEET

Material Name: Aureomycin ® 90 Meal
Revision date: 16-Dec-2013

Page 8 of 8
Version: 2.0

15. REGULATORY INFORMATION

Chlortetracycline

| | |
|---|--------------------------|
| 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 Schedule 5 |
| EU EINECS/ELINCS List | 200-341-7 |

Mineral 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 | 232-384-2 |

16. OTHER INFORMATION

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

H360 - May damage fertility or the unborn child

R61 - May cause harm to the unborn child.

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

Reasons for Revision: Updated Section 1 - Identification of the Substance/Preparation and the Company/Undertaking. Updated Section 2 - Hazard Identification. Updated Section 3 - Composition / Information on Ingredients. Updated Section 4 - First Aid Measures. Updated Section 5 - Fire Fighting Measures. Updated Section 6 - Accidental Release Measures. Updated Section 7 - Handling and Storage. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 9 - Physical and Chemical Properties. Updated Section 10 - Stability and Reactivity. Updated Section 11 - Toxicology Information. Updated Section 12 - Ecological 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