SAFETY DATA SHEET

1. Identification

Product identifier
Oxymicine LA (Oxytetracycline dihydrate) and LA 300 Injectable Solution

Other means of identification
Synonyms
OXYMYCINE LA * OXYMYCINE LA 300 * Almacyin LA * Oxytetracycline dihydrate sterile injectable solution

Recommended use
Veterinary antibiotic agent

Recommended restrictions
Not for human use

Manufacturer/Importer/Supplier/Distributor information
Company Name (USA)
Zoetis Inc.
10 Sylvan Way
Parsippany, New Jersey 07054 (USA)

Rocky Mountain Poison and Drug Center

Product Support/Technical Services

Emergency telephone numbers
CHEMTREC (24 hours): 1-800-424-9300
International CHEMTREC (24 hours): +1-703-527-3887

Company Name (CA)
Zoetis Canada Inc.
16740 Trans-Canada Highway
Kirkland, Quebec, H9H 4M7

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

Contact E-Mail
productsupport@zoetis.com

Product Support
1-800-461-0917

All Safety Data Sheets are available via our Zoetis Canada website at https://www.zoetis.ca/sds/sds.aspx

Supplier
Not available.

2. Hazard(s) identification

Physical hazards
Not classified.

Health hazards
Reproductive toxicity (the unborn child) Category 1A

Environmental hazards
Hazardous to the aquatic environment, acute hazard Category 3
Hazardous to the aquatic environment, long-term hazard Category 3

Label elements

Signal word
Danger

Hazard statement
May damage the unborn child. Harmful to aquatic life with long lasting effects.

Precautionary statement
Prevention
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response
IF exposed or concerned: Get medical advice/attention.
Storage
Store locked up.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards
None known.

Supplemental information
Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium formaldehyde sulfoxylate dihydrate</td>
<td>6035-47-8</td>
<td>&lt;1</td>
<td></td>
</tr>
<tr>
<td>Oxytetracycline Dihydrate</td>
<td>6153-64-6</td>
<td>200 or 300 mg/ml</td>
<td></td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist. For breathing difficulties, oxygen may be necessary.

Skin contact
Wash off immediately with soap and plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact
Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth. Get medical attention if symptoms occur. If ingestion of a large amount does occur, call a poison control centre immediately. Do not induce vomiting without advice from poison control center. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed
Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort. May cause effects similar to those generally seen in clinical use of tetracyclines including gastrointestinal irritation, nausea, vomiting, and diarrhea. Symptoms of chronic exposure to tetracyclines include redness and swelling of the skin, rash, chills, tooth discoloration, yellowing of the skin and eyes, nausea, vomiting, diarrhea, stomach pain, and chest pain.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information
IF exposed or concerned: Get medical advice/attention. For personal protection, see section 8 of the SDS. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Ensure adequate ventilation. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Avoid contact with eyes, skin, and clothing. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up

Ensure adequate ventilation. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Avoid release to the environment. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not breathe mist or vapour. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Avoid accidental injection. When using, do not eat, drink or smoke. Wash thoroughly after handling. Wear appropriate personal protective equipment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Protect from light. Keep away from heat, sparks and open flame. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. @ 15 - 25˚C (59 - 77˚F). Do not allow material to freeze. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Zoetis Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxytetracycline Dihydrate (CAS 6153-64-6)</td>
<td>TWA</td>
<td>0.5 mg/m^3</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Control banding approach

Engineering controls should be used as the primary means to control exposures. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

Eye/face protection

If contact is likely, safety glasses with side shields are recommended.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Impervious gloves.

Other

Wear suitable protective clothing. Use protective clothing (unforms, lab coats, disposable overalls, etc.) in both production and laboratory areas.

Respiratory protection

No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment. Whenever air contamination (mist, vapor or odor) is generated, respiratory protection is recommended as a precaution to minimize exposure. 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.

Thermal hazards

Not applicable.

General hygiene considerations

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Sterile solution

Physical state

Liquid.

Form

Liquid.

Colour

Yellow - Amber

Odour

Not available.
Odour threshold: Not available.

pH: 8 - 8.9 estimated

Melting point/freezing point: Not available.

Initial boiling point and boiling range: Not available.

Flash point: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%): Not available.

Flammability limit - upper (%): Not available.

Explosive limit - lower (%): Not available.

Explosive limit – upper (%): Not available.

Vapour pressure: Not available.

Vapour density: Not available.

Relative density: Not available.

Solubility(ies)

Solubility (water): Not available.

Partition coefficient (n-octanol/water): Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Other information

Explosive properties: Not explosive.

Oxidising properties: Not oxidising.

10. Stability and reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid: Contact with incompatible materials. Heat, flames and sparks. Sunlight. Exposure to light. Protect from freezing.

Incompatible materials: Strong oxidising agents.

Hazardous decomposition products: Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition. Thermal decomposition products may include oxides of carbon, nitrogen, and sulfur.

11. Toxicological information

Information on likely routes of exposure

Inhalation: Prolonged inhalation may be harmful.

Skin contact: Prolonged skin contact may cause temporary irritation.

Eye contact: Direct contact with eyes may cause temporary irritation.

Ingestion: Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics: Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort. May cause effects similar to those generally seen in clinical use of tetracyclines including gastrointestinal irritation, nausea, vomiting, and diarrhea. Symptoms of chronic exposure to tetracyclines include redness and swelling of the skin, rash, chills, tooth discoloration, yellowing of the skin and eyes, nausea, vomiting, diarrhea, stomach pain, and chest pain.

Information on toxicological effects
Acute toxicity
Ingestion may result in mild gastrointestinal irritation with nausea, vomiting, or diarrhea.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxytetracycline Dihydrate (CAS 6153-64-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>7200 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Dog</td>
<td>250 mg/kg/day, 24 months (No target organs identified - data for oxytetracycline HCL)</td>
</tr>
<tr>
<td>NOAEL</td>
<td></td>
<td>125 mg/kg/day, 12 months (Male reproductive system - data for oxytetracycline HCL)</td>
</tr>
<tr>
<td>NOEL</td>
<td>Mouse</td>
<td>1372 mg/kg/day, 103 weeks (Not carcinogenic - data for oxytetracycline HCL)</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>150 mg/kg/day, 24 months (Not carcinogenic - data for oxytetracycline HCL)</td>
</tr>
<tr>
<td><strong>Subchronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>3821 mg/kg/day, 13 weeks (No target organs identified - data for oxytetracycline HCL)</td>
</tr>
<tr>
<td>NOAEL</td>
<td></td>
<td>3352 mg/kg/day, 13 weeks (Liver - data for oxytetracycline HCL)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation
Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitisation

Respiratory sensitisation
Not a respiratory sensitizer.

Skin sensitisation
This product is not expected to cause skin sensitisation.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Mutagenicity
Oxytetracycline Dihydrate

<table>
<thead>
<tr>
<th>Test results</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacterial Mutagenicity (Ames), (data for oxytetracycline HCL)</td>
<td>Salmonella</td>
</tr>
<tr>
<td>In Vitro Chromosome Aberration, (data for oxytetracycline HCL)</td>
<td>Negative</td>
</tr>
<tr>
<td>Species: Chinese Hamster Ovary (CHO) cells</td>
<td></td>
</tr>
<tr>
<td>Mammalian Cell Mutagenicity, (data for oxytetracycline HCL)</td>
<td>Positive with activation</td>
</tr>
<tr>
<td>Species: Mouse Lymphoma</td>
<td></td>
</tr>
<tr>
<td>Micronucleus, (data for oxytetracycline HCL)</td>
<td>Negative</td>
</tr>
<tr>
<td>Species: Mouse</td>
<td></td>
</tr>
<tr>
<td>Sister Chromatid Exchange, (data for oxytetracycline HCL)</td>
<td>Negative</td>
</tr>
<tr>
<td>Species: Chinese Hamster Ovary (CHO) cells</td>
<td></td>
</tr>
</tbody>
</table>

Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity
May damage the unborn child.
Developmental effects
Oxytetracycline Dihydrate

1500 mg/kg/day Embryo / Fetal Development, (Maternal Toxicity - data for oxytetracycline HCL)
Result: NOAEL
Species: Rat
Organ: Oral

2100 mg/kg/day Embryo / Fetal Development, (Embryotoxicity - data for oxytetracycline HCL)
Result: NOAEL
Species: Mouse
Organ: Oral

Reproductivity
Oxytetracycline Dihydrate

18 mg/kg/day 2 Generation Reproductive Toxicity, (No effects at maximum dose - data for oxytetracycline HCL)
Result: NOAEL
Species: Rat
Organ: Oral

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Based on available data, the classification criteria are not met. This product may affect Liver.
Kidneys. through prolonged or repeated exposure.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged inhalation may be harmful.

Further information
Caution - Pharmaceutical agent. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. Photosensitivity has been reported in some individuals taking tetracyclines. High doses of tetracyclines can cause a liver condition known as fatty liver. Individuals who suffer from high cholesterol, high triglycerides, or have alcoholic liver disease may be more susceptible. May produce kidney toxicity if kidney damage already exists (based on animal data).

12. Ecological information

Ecotoxicity
Harmful to aquatic life with long lasting effects. Avoid release to the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxytetracycline Dihydrate</td>
<td>Crustacea</td>
<td>EC50 Whiteleg shrimp</td>
</tr>
<tr>
<td>(CAS 6153-64-6)</td>
<td></td>
<td>&gt; 0.16 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50 Striped bass (Morone saxatilis)</td>
<td>75 mg/l, 96 hours</td>
</tr>
</tbody>
</table>

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Avoid release to the environment. Do not allow this material to drain into sewers/water supplies.
Do not contaminate ponds, waterways or ditches with chemical or used container. 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. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
None known.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

15. Regulatory information

Canadian regulations

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

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date: 23-May-2017
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. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information
Product and Company Identification: Synonyms
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Transport Information: Material Transportation Information
GHS: Qualifiers