SAFETY DATA SHEET

1. Identification

Product identifier
Oxytetracycline Long Acting Injectable Solution 200 mg/mL

Other means of identification

Synonyms
Liquamycin LA-200® * Liquamycin® LA-200® * TMLA * LA-200 * Liquamycin * Primamycin *
Terramycin * Primamycin LA Injectable Solution * TM LA

Recommended use
Veterinary product used as antibiotic agent

Recommended restrictions
Not for human use

Manufacturer/Importer/Supplier/Distributor information

Company Name (US)
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

Company Name (EU)
Zoetis Belgium S.A.
Mercuriusstraat 20
1930 Zaventem
Belgium

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

Contact E-Mail
VMIPRecords@zoetis.com

2. Hazard(s) identification

Physical hazards
Not classified.

Health hazards
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
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

OSHA defined hazards
Not classified.

Label elements

Signal word
Danger

Hazard statement
Causes skin irritation. Causes serious eye irritation. 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. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response
If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Storage
Store locked up.

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

Hazard(s) not otherwise classified (HNOC)
None known.

Supplemental information
Ingestion of this material may cause effects similar to those generally seen in clinical use of antibiotics including gastrointestinal irritation, vomiting, transient diarrhea, nausea, and abdominal pain. Exposure to sunlight following contact may result in skin reactions in rare instances. 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.

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>2-Pyrrolidone</td>
<td></td>
<td>616-45-5</td>
<td>30-50</td>
</tr>
<tr>
<td>Oxytetracycline Dihydrate</td>
<td></td>
<td>6153-64-6</td>
<td>20</td>
</tr>
<tr>
<td>Magnesium oxide</td>
<td></td>
<td>1309-48-4</td>
<td>&lt;5</td>
</tr>
<tr>
<td>HYDROCHLORIC ACID</td>
<td></td>
<td>7647-01-0</td>
<td>**</td>
</tr>
<tr>
<td>Monoethanolamine 99% - NF</td>
<td></td>
<td>141-43-5</td>
<td>**</td>
</tr>
</tbody>
</table>

Composition comments
** to adjust pH
In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

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. Remove contaminated clothing. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion
Rinse mouth. Get medical advice/attention if you feel unwell. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Most important symptoms/effects, acute and delayed
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause effects similar to those generally seen in clinical use of tetracyclines including gastrointestinal irritation, nausea, vomiting, and diarrhea.

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. Ventilate closed spaces before entering them. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. 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. Wear appropriate protective equipment and clothing during clean-up. Avoid release to the environment.

Large Spills: Stop the flow of material, if this is without risk. 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.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Wear personal protective equipment. Provide adequate ventilation. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid accidental injection. Avoid prolonged exposure. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment.

Conditions for safe storage, including any incompatibilities
Store in a well-ventilated place. @ 15-30°C (59-86°F). Keep away from heat, sparks and open flame. Do not store in direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known 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/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDROCHLORIC ACID (CAS 7647-01-0)</td>
<td>Ceiling</td>
<td>7 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Magnesium oxide (CAS 1309-48-4)</td>
<td>PEL</td>
<td>5 ppm</td>
<td></td>
</tr>
<tr>
<td>Monoethanolamine 99% - NF (CAS 141-43-5)</td>
<td>PEL</td>
<td>6 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-3 (29 CFR 1910.1000) Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium oxide (CAS 1309-48-4)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 mppcf</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mppcf</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDROCHLORIC ACID (CAS 7647-01-0)</td>
<td>Ceiling</td>
<td>2 ppm</td>
<td></td>
</tr>
<tr>
<td>Magnesium oxide (CAS 1309-48-4)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
</tbody>
</table>
US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethanolamine 99% - NF</td>
<td>STEL</td>
<td>6 ppm</td>
<td></td>
</tr>
<tr>
<td>CAS 141-43-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>3 ppm</td>
<td></td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
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<th>Value</th>
</tr>
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<td>Monoethanolamine 99% - NF</td>
<td>STEL</td>
<td>5 ppm</td>
</tr>
<tr>
<td>CAS 141-43-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>6 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 ppm</td>
</tr>
</tbody>
</table>

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

Control banding approach
Not available.

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas. 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 protective gloves.

Other
Wear suitable protective clothing. Use protective clothing (uniforms, lab coats, disposable coveralls, 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. 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.

Color
Yellow. - Amber.

Odor
Not available.

Odor threshold
Not available.

pH
8.6 - 8.8

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.
Vapor pressure Not available.
Vapor 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.
Oxidizing properties Not oxidizing.
Specific gravity 1.11 - 1.17

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.
Incompatible materials Strong oxidizing 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 Under normal conditions of intended use, this material is not expected to be an inhalation hazard.
Skin contact Causes skin irritation.
Eye contact Causes serious eye irritation.
Ingestion Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. 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>2-Pyrrolidone (CAS 616-45-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>6500 mg/kg</td>
</tr>
<tr>
<td>HYDROCHLORIC ACID (CAS 7647-01-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>238 - 277 mg/kg</td>
</tr>
<tr>
<td>Components</td>
<td>Species</td>
<td>Test Results</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Monoethanolamine 99% - NF (CAS 141-43-5)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>1025 mg/kg</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>700 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>1720 mg/kg</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>115 g/kg, 90 days Liver Kidney Ureter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bladder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>105 mg/kg, 30 weeks Liver</td>
</tr>
<tr>
<td><strong>Oxytetracycline Dihydrate (CAS 6153-64-6)</strong></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><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></td>
<td></td>
<td>125 mg/kg/day, 12 months (Male reproductive system - data for oxytetracycline HCL)</td>
</tr>
<tr>
<td></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></td>
<td>Rat</td>
<td>3352 mg/kg/day, 13 weeks (Liver - data for oxytetracycline HCL)</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
- Causes skin irritation.

**Serious eye damage/eye irritation**
- Causes serious eye irritation.

**Respiratory or skin sensitization**
- Not a respiratory sensitizer.
- This product is not expected to cause skin sensitization.

**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
  - Bacterial Mutagenicity (Ames), (data for oxytetracycline HCL)
    - Result: Negative
    - Species: Salmonella
  - In Vitro Chromosome Aberration, (data for oxytetracycline HCL)
    - Result: Negative
    - Species: Chinese Hamster Ovary (CHO) cells
**Mutagenicity**

Oxytetracycline Dihydrate

Mammalian Cell Mutagenicity, (data for oxytetracycline HCL)
Result: Positive with activation
Species: Mouse Lymphoma

Micronucleus, (data for oxytetracycline HCL)
Result: Negative
Species: Mouse

Sister Chromatid Exchange, (data for oxytetracycline HCL)
Result: Negative
Species: Chinese Hamster Ovary (CHO) cells

**Carcinogenicity**

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

**IARC Monographs. Overall Evaluation of Carcinogenicity**

HYDROCHLORIC ACID (CAS 7647-01-0) 3 Not classifiable as to carcinogenicity to humans.


Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**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

Monoethanolamine 99% - NF

500 mg/kg/day Reproductive & Fertility-Females, Early embryonic development Reproductive toxicity Developmental toxicity
Result: LOAEL
Species: Rat
Organ: Oral

**Specific target organ toxicity - single exposure**

Not classified.

**Specific target organ toxicity - repeated exposure**

Due to partial or complete lack of data the classification is not possible. 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**

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.
### Components

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Pyrrolidone (CAS 616-45-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia pulex)</td>
</tr>
<tr>
<td>HYDROCHLORIC ACID (CAS 7647-01-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Western mosquitofish (Gambusia affinis)</td>
</tr>
<tr>
<td>Monoethanolamine 99% - NF (CAS 141-43-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout,donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>Oxytetracycline Dihydrate (CAS 6153-64-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Whiteleg shrimp (Penaeus vannamei)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Striped bass (Morone saxatilis)</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 discharge into drains, water courses or onto the ground. 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

#### DOT
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

#### US federal regulations
This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)
- HYDROCHLORIC ACID (CAS 7647-01-0) Listed.
SARA 304 Emergency release notification
HYDROCHLORIC ACID (CAS 7647-01-0) 5000 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Hazard categories

SARA 302 Extremely hazardous substance

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Reportable quantity (pounds)</th>
<th>Threshold planning quantity (pounds)</th>
<th>Threshold planning quantity, lower value (pounds)</th>
<th>Threshold planning quantity, upper value (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDROCHLORIC ACID</td>
<td>7647-01-0</td>
<td>5000</td>
<td>500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
HYDROCHLORIC ACID (CAS 7647-01-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
HYDROCHLORIC ACID (CAS 7647-01-0)

Safe Drinking Water Act (SDWA)

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
HYDROCHLORIC ACID (CAS 7647-01-0) 6545

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
HYDROCHLORIC ACID (CAS 7647-01-0) 20 %WV

DEA Exempt Chemical Mixtures Code Number
HYDROCHLORIC ACID (CAS 7647-01-0) 6545

US state regulations

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Developmental toxin
Oxytetracycline Dihydrate (CAS 6153-64-6) Listed: January 1, 1991

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
HYDROCHLORIC ACID (CAS 7647-01-0)
Magnesium oxide (CAS 1309-48-4)

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 (NDSDL)</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>
</tbody>
</table>
16. Other information, including date of preparation or last revision

Issue date 06-24-2013
Revision date 04-14-2017
Version # 05

Disclaimer
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Revision information
This document has undergone significant changes and should be reviewed in its entirety.