1. Identification

Product identifier: Danofloxacin mesylate injectable solution

Other means of identification

Synonyms: ADVOCID™ * ADVOCIN™ * A180® * A180® Sterile Injectable Solution * Advocid 180 * Advocin 180 * ADVOCIN Sterile Injectable Solution * Advocin Injectable Solution

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.
Mercuriussstraat 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: Specific target organ toxicity, repeated exposure Category 2 (connective tissue, reproductive system, heart, kidney, nervous system)

Environmental hazards: Hazardous to the aquatic environment, acute hazard Category 3

OSHA defined hazards: Not classified.

Label elements

Signal word: Warning
Hazard statement: May cause damage to organs (connective tissue, reproductive system, heart, kidney, nervous system) through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

Precautionary statement

Prevention: Do not breathe mist or vapor. Avoid release to the environment.
Response: Get medical advice/attention if you feel unwell.
Storage: Store away from incompatible materials.
Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC): None known.
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>20</td>
</tr>
<tr>
<td>Danofloxacin mesylate</td>
<td></td>
<td>119478-55-6</td>
<td>18</td>
</tr>
<tr>
<td>Magnesium oxide</td>
<td></td>
<td>1309-48-4</td>
<td>2.03</td>
</tr>
<tr>
<td>Phenol</td>
<td></td>
<td>108-95-2</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Composition comments

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. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. 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. There is a risk of photosensitization within a few hours after excessive exposure to quinolones. If excessive exposure does occur, avoid direct sunlight and wash skin with soap and water.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses, if present and easy to do.

Ingestion

Rinse mouth. Call a physician or 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

Direct contact with eyes may cause temporary irritation. Exposed individuals may experience eye tearing, redness, and discomfort. Individuals sensitive to this chemical or other materials in its chemical class may develop allergic reactions. Rash (allergic skin rash); Difficulty in breathing. Quinolones may effect connective tissue structures. Tendonitis and tendon rupture have occurred as late as several months after quinolone treatment. Convolusions, increased intracranial pressure, and toxic psychosis have been reported in patients receiving quinolones. The most common adverse reactions associated with the use of quinolones include gastrointestinal distress, such as nausea or diarrhea, and central nervous system (CNS) effects, including insomnia, dizziness, and seizures. Sensory/motor nerve injury (peripheral neuropathy) may occur.

Indication of immediate medical attention and special treatment needed

May cause central nervous system effects. Individuals with cardiac conditions may be more susceptible to toxicity in cases of overexposure. Monitor respiratory, cardiac and central nervous system. 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. CAUTION! - Individuals with a history of hypersensitivity to this material or members of the quinolone class of antimicrobials and those with known seizure disorders. Individuals with cardiac conditions may be more susceptible to toxicity in cases of overexposure.

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 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. Prevent product from entering drains.

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.

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

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
Wear appropriate personal protective equipment. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. 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. @ ≤ 30°C/86°F. Store in a tightly closed container. Protect from light. Protect from sunlight. Keep away from heat, sparks and open flame. 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
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>Danofloxacin mesylate (CAS 119478-55-6)</td>
<td>TWA</td>
<td>200 µg/m³</td>
</tr>
</tbody>
</table>

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium oxide (CAS 1309-48-4)</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>Total particulate.</td>
</tr>
<tr>
<td>Phenol (CAS 108-95-2)</td>
<td>PEL</td>
<td>19 mg/m³</td>
<td>5 ppm</td>
</tr>
</tbody>
</table>

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>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>

**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>Magnesium oxide (CAS 1309-48-4)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Phenol (CAS 108-95-2)</td>
<td>TWA</td>
<td>5 ppm</td>
<td></td>
</tr>
</tbody>
</table>

**US. NIOSH: Pocket Guide to Chemical Hazards**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol (CAS 108-95-2)</td>
<td>Ceiling</td>
<td>60 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.6 ppm</td>
</tr>
</tbody>
</table>
**US. NIOSH: Pocket Guide to Chemical Hazards**

### TWA
- **Value:** 19 mg/m³
- **Value:** 5 ppm

### Biological limit values

<table>
<thead>
<tr>
<th>ACGIH Biological Exposure Indices</th>
<th>Value</th>
<th>Determinant</th>
<th>Specimen</th>
<th>Sampling Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol (CAS 108-95-2)</td>
<td>250 mg/g</td>
<td>Phenol with hydrolysis</td>
<td>Creatinine in urine</td>
<td>*</td>
</tr>
</tbody>
</table>

* - For sampling details, please see the source document.

### Exposure guidelines

#### US - California OELs: Skin designation
- **Phenol (CAS 108-95-2)** Can be absorbed through the skin.

#### US - Minnesota Haz Subs: Skin designation applies
- **Phenol (CAS 108-95-2)** Skin designation applies.

#### US - Tennessee OELs: Skin designation
- **Phenol (CAS 108-95-2)** Can be absorbed through the skin.

#### US ACGIH Threshold Limit Values: Skin designation
- **Phenol (CAS 108-95-2)** Can be absorbed through the skin.

#### US NIOSH Pocket Guide to Chemical Hazards: Skin designation
- **Phenol (CAS 108-95-2)** Can be absorbed through the skin.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
- **Phenol (CAS 108-95-2)** Can be absorbed through the skin.

#### Control banding approach
- **Not available.**

#### Appropriate engineering controls
- 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 room ventilation is adequate unless the process generates dust, mist or aerosols.

#### 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 are recommended if skin contact with drug product is possible and for bulk processing operations.

- **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. 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
- 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
- **Colorless.**

#### Odor
- **Not available.**

#### Odor threshold
- **Not available.**

#### pH
- **7.5**

#### Melting point/freezing point
- **Not available.**
### 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**

**Incompatible materials**

**Hazardous decomposition products**
Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

### 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. May cause hypersensitivity reactions in susceptible individuals.

**Skin contact**
Prolonged skin contact may cause temporary irritation. May cause hypersensitivity reactions in susceptible individuals. Photosensitivity may occur.

**Danofloxacin mesylate**
Species: Rabbit  
Severity: Mild

**Phenol**
Species: Rabbit  
Severity: Severe

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

**Danofloxacin mesylate**
Species: Rabbit  
Severity: No effect

**Phenol**
Species: Rabbit  
Severity: Severe
Ingestion

Ingestion may result in mild gastrointestinal irritation with nausea, vomiting, or diarrhea. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. Rash. (allergic skin rash): Difficulty in breathing. Quinolones may affect connective tissue structures. Tendonitis and tendon rupture have occurred as late as several months after quinolone treatment. Convolusions, increased intracranial pressure, and toxic psychosis have been reported in patients receiving quinolones. The most common adverse reactions associated with the use of quinolones include gastrointestinal distress, such as nausea or diarrhea, and central nervous system (CNS) effects, including insomnia, dizziness, and seizures. Sensory/motor nerve injury (peripheral neuropathy) may occur.

Information on toxicological effects

Acute toxicity

Ingestion may result in mild gastrointestinal irritation with nausea, vomiting, or diarrhea.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danofloxacin mesylate injectable solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg (ATE)</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 10 mg/l (ATE)</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg (ATE)</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Components</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Danofloxacin mesylate (CAS 119478-55-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intravenous</td>
<td>Mouse</td>
<td>50 - 100 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>100 - 150 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>10 mg/L/day, 2 years [Effect(s): Tumors, Female reproductive system (Female rat)]</td>
</tr>
<tr>
<td>LOEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>10 mg/kg/day, 2 years [Target organ(s): Kidney, Male reproductive system]</td>
</tr>
<tr>
<td>NOEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>25 mg/kg/day, 3 months [Target organ(s): Kidney, Heart, Male reproductive system]</td>
</tr>
<tr>
<td>LOEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
<td>Prolonged skin contact may cause temporary irritation.</td>
</tr>
</tbody>
</table>
Corrosivity
Danofloxacin mesylate  Species: Rabbit
Severity: Mild

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

Eye Contact
Danofloxacin mesylate  Species: Rabbit
Severity: No effect

Phenol  Species: Rabbit
Severity: Severe

Respiratory or skin sensitization
Respiratory sensitization
Due to partial or complete lack of data the classification is not possible. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions.

Skin sensitization
Due to partial or complete lack of data the classification is not possible. Individuals sensitive to this material or other materials in its chemical class may develop allergic reactions. Skin sensitization and/or photosensitization potential (allergic response after UV exposure) of other quinolones have been demonstrated in guinea pigs, mice, and humans.

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

Mutagenicity
Danofloxacin mesylate
Bacterial Mutagenicity (Ames)
Result: Negative
Species: Salmonella

In Vitro Cytogenetics
Result: Negative
Species: Human Lymphocytes

In Vivo Cytogenetics
Result: Negative
Species: Mouse Bone Marrow

Mammalian Cell Mutagenicity
Result: Negative
Species: Mouse Lymphoma

Unscheduled DNA Synthesis
Result: Negative
Species: Rat Hepatocyte

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

IARC Monographs. Overall Evaluation of Carcinogenicity
Phenol (CAS 108-95-2) 3 Not classifiable as to carcinogenicity to humans.

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

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

Reproductive toxicity
Due to partial or complete lack of data the classification is not possible. Repeat-dose studies in animals have shown a potential to cause adverse effects on testes. Possible risk of impaired fertility. Classification not possible. No evidence of teratogenicity or embryotoxicity was observed for danofloxacin in mice, rats, or rabbits.

Developmental effects
Danofloxacin mesylate
100 mg/kg/day Embryo / Fetal Development, Not Teratogenic
Result: NOEL
Species: Mouse
Organ: Oral
Developmental effects
Danofloxacin mesylate 50 mg/kg/day Embryo / Fetal Development, Not Teratogenic
Result: NOEL
Species: Rat
Organ: Oral

Reproductivity
Danofloxacin mesylate 6.25 mg/kg/day Reproductive & Fertility, Fertility
Result: NOEL
Species: Rat
Organ: Oral

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
May cause damage to organs (connective tissue, reproductive system, heart, kidney, nervous system) through prolonged or repeated exposure.

Aspiration hazard
Not an aspiration hazard.

Further information
Possible risks of irreversible effects, sensory/motor nerve injury (peripheral neuropathy) may occur. This compound may cause cartilage deterioration in knee joints. Quinolones may affect connective tissue structures. Tendonitis and tendon rupture have occurred as late as several months after quinolone treatment. Drugs of this class have been associated with rare, but potentially serious cardiac events. These effects have not been observed from occupational exposures, however, those with preexisting cardiovascular illnesses may be at increased risk from exposure.

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>2-Pyrrolidone (CAS 616-45-5)</td>
<td>Daphnia magna (Water Flea)</td>
<td>13.21 mg/L, 48 Hours</td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>Daphnia pulex</td>
<td>13.21 mg/l, 48 hours</td>
</tr>
<tr>
<td>Danofloxacin mesylate (CAS 119478-55-6)</td>
<td>Champia</td>
<td>2.7 mg/L, 168 Hours</td>
</tr>
<tr>
<td>IC50</td>
<td>Polytex</td>
<td>0.92 mg/L</td>
</tr>
<tr>
<td>LC50</td>
<td>Cyprinodon variegatus (Sheepshead Minnow)</td>
<td>&gt; 100 mg/L, 48 Hours</td>
</tr>
<tr>
<td>Daphnia magna (Water Flea)</td>
<td>63.5 mg/L, 48 Hours</td>
<td></td>
</tr>
<tr>
<td>Mysidopsis bahia (Mysid Shrimp)</td>
<td>&gt; 100 mg/L, 48 Hours</td>
<td></td>
</tr>
<tr>
<td>Phenol (CAS 108-95-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>Daphnia obtusa</td>
<td>4.7 - 6.4 mg/l, 48 hours</td>
</tr>
<tr>
<td>Fish</td>
<td>Asiatic knifefish (Notopterus notopterus)</td>
<td>8 - 8.25 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 discharge into drains, water courses or onto the ground. 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
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

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)
Phenol (CAS 108-95-2) Listed.

SARA 304 Emergency release notification
Phenol (CAS 108-95-2) 1000 LBS

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

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance

Chemical name       CAS number       Reportable quantity (pounds)       Threshold planning quantity, lower value (pounds)       Threshold planning quantity, upper value (pounds)
Phenol              108-95-2         1000                               500                                10000

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
Phenol (CAS 108-95-2)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Phenol (CAS 108-95-2) Low priority

US state regulations
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
Magnesium oxide (CAS 1309-48-4)
Phenol (CAS 108-95-2)

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>No</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>No</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, including date of preparation or last revision

Issue date 11-25-2013
Revision date 05-31-2017
Version # 03

List of abbreviations
ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).

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