1. Identification

Product identifier: Ceftiofur Sodium Sterile Powder

Other means of identification:
- Excenel *
- Naxcel *
- Ceftiofur sodium powder for solution *
- Excenel sterile powder

Synonyms: Veterinary antibiotic agent

Recommended use: Not for human use

Recommended restrictions:

Manufacturer/Importer/Supplier/Distributor information

Company Name (US): Zoetis Inc.
10 Sylvan Way
Parsippany, New Jersey 07054 (USA)

Rocky Mountain Poison and Drug Center: 1-866-531-8896

Product Support/Technical Services: 1-800-366-5288

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

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: VMIPSrecords@zoetis.com

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards:
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2
- Sensitization, respiratory: Category 1
- Sensitization, skin: Category 1

Environmental hazards: Not classified.

OSHA defined hazards: Combustible dust

Label elements

Signal word: Danger

Hazard statement: May form combustible dust concentrations in air. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statement

Prevention
Response
If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. 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. In case of fire: Use appropriate media to extinguish.

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.

Supplemental information
Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug. 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.

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>Ceftriaxone Hydrochloride</td>
<td>Cephalosporin antibiotic; b-lactam antibiotic; b-lactamase inhibitor</td>
<td>103980-44-5</td>
<td>98</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>1310-73-2</td>
<td>1</td>
</tr>
<tr>
<td>Benzyl Alcohol (in the sterile diluent)</td>
<td></td>
<td>100-51-6</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Potassium phosphate</td>
<td></td>
<td>7778-77-0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Sterile diluent for injection</td>
<td></td>
<td>7732-18-5</td>
<td></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. If breathing is difficult, trained personnel should give oxygen.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation develops and persists. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. 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. Continue rinsing. 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 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
Difficulty in breathing. May cause an allergic skin reaction. Dermatitis. Rash. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause skin irritation. May cause redness and pain. Ingestion may result in mild gastrointestinal irritation with nausea, vomiting, or 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
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. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dust.

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. High concentration of airborne dust may form explosive mixture with air.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

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

May form combustible dust concentrations in air. Fine particles (such as dust and mists) may fuel fires/explosions.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation. Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate the contaminated area. Do not breathe dust. 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. Avoid the generation of dusts during clean-up. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Collect spill with an inert, non-combustible absorbent material and transfer to labeled container for disposal. Clean contaminated surface thoroughly. Prevent release to the environment.

Small Spills: Wipe up with a damp cloth and place in container for disposal. 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.

Environment authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 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
Use with adequate ventilation. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not breathe dust. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with eyes, skin, and clothing. Avoid accidental injection. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling. Avoid release to the environment.

Store in a well-ventilated place. Before reconstitution: @ 15-30°C (59-86°F). Keep away from heat, sparks and open flame. Protect from sunlight. 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>Value Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>TWA</td>
<td>200 µg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Value Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Value Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>------------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>Benzyl Alcohol (in the sterile diluent) (CAS 100-51-6)</td>
<td>TWA</td>
<td>44.2 mg/m³</td>
</tr>
</tbody>
</table>

**Biological limit values**

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

**Exposure guidelines**

OEL Additional Information: Sensitizer

**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. Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations.
  
  - **Other**
    
    Wear suitable protective clothing. Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing operations.

- **Respiratory protection**
  
  In case of insufficient ventilation, wear suitable respiratory equipment. Respiratory protection should be provided in instances where exposure to dust, mists, aerosols or vapors are likely. 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. Chemical respirator with organic vapor cartridge, full facepiece, dust and mist filter.

- **Thermal hazards**
  
  Wear appropriate thermal protective clothing, when necessary.

- **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. Contaminated work clothing should not be allowed out of the workplace.

### 9. Physical and chemical properties

- **Appearance**
  
  Powder for reconstitution plus sterile diluent

- **Physical state**
  
  Solid.

- **Form**
  
  Powder. plus sterile diluent.

- **Color**
  
  Off-white to tan

- **Odor**
  
  Not available.

- **pH**
  
  Not available.

- **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 available.

- **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.
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>&gt;400 mg/ml</td>
</tr>
<tr>
<td>Solubility (other)</td>
<td>Slight (methanol, THF)</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not oxidizing.</td>
</tr>
</tbody>
</table>

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. Keep away from heat, sparks and open flame. Minimize dust generation and accumulation.
Hazardous decomposition products  Thermal decomposition products may include oxides of carbon, nitrogen, and sulfur.

11. Toxicological information

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled. Dust may irritate respiratory system. Prolonged inhalation may be harmful.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Causes skin irritation. May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Benzyl Alcohol (in the sterile diluent)</td>
<td>Species: Guinea Pig  Severity: Moderate</td>
</tr>
<tr>
<td></td>
<td>Species: Rabbit  Severity: Minimal</td>
</tr>
<tr>
<td></td>
<td>Sodium hydroxide  Species: Rabbit  Severity: Severe</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Route</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>Benzyl Alcohol (in the sterile diluent)</td>
<td>Species: Rabbit  Severity: Minimal</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>Species: Rabbit  Severity: Severe</td>
</tr>
</tbody>
</table>

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. Dusts may irritate the respiratory tract, skin and eyes. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Ingestion may result in mild gastrointestinal irritation with nausea, vomiting, or diarrhea.

Information on toxicological effects

Acute toxicity  Expected to be a low hazard for usual industrial or commercial handling by trained personnel.
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Alcohol (in the sterile diluent) (CAS 100-51-6)</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>LD50</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>Rat</td>
<td>&gt; 4.178 mg/L</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>1580 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>1230 mg/kg</td>
</tr>
<tr>
<td>Ceftiofur Hydrochloride (CAS 103980-44-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>LD50</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 7760 mg/kg</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>927 mg/kg [Sub-tenon injection (eye)]</td>
</tr>
<tr>
<td><strong>Subchronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Dog</td>
<td>NOEL</td>
</tr>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intraperitoneal</td>
<td>Mouse</td>
<td>LD50</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causes skin irritation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Corrosivity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceftiofur Hydrochloride</td>
<td>Species: Rabbit</td>
<td>Severity: Minimal</td>
</tr>
<tr>
<td>Benzyl Alcohol (in the sterile diluent)</td>
<td>Species: Rabbit</td>
<td>Severity: Severe</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>Species: Rabbit</td>
<td>Severity: Severe</td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Causes serious eye irritation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td></td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td></td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td></td>
<td>No data available to indicate product or any components present at greater</td>
</tr>
<tr>
<td></td>
<td></td>
<td>than 0.1% are mutagenic or genotoxic.</td>
</tr>
<tr>
<td><strong>Mutagenicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceftiofur Hydrochloride</td>
<td>Bacterial Mutagenicity</td>
<td>(Ames) Result: Negative</td>
</tr>
<tr>
<td></td>
<td>Species: Salmonella, E.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>coli</td>
<td></td>
</tr>
</tbody>
</table>
**Mutagenicity**

Ceftiofur Hydrochloride

Result: Negative
Species: Chinese Hamster Ovary (CHO) cells

Unscheduled DNA Synthesis
Result: Negative
Species: Rat

**Carcinogenicity**

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


Not regulated.

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

Not listed.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Developmental effects**

Ceftiofur Hydrochloride

3200 mg/kg/day Embryo / Fetal Development, Not Teratogenic
Result: NOAEL
Species: Rat
Organ: Oral

**Reproductivity**

Ceftiofur Hydrochloride

1000 mg/kg/day 2 Generation Reproductive Toxicity, Fetotoxicity
Result: NOEL
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 blood and blood forming organs through prolonged or repeated exposure.

**Aspiration hazard**

Not an aspiration hazard.

**Chronic effects**

Prolonged inhalation may be harmful.

**Further information**

Individuals who are sensitive to beta lactam antibiotics, both penicillins and cephalosporins, may experience contact or systemic hypersensitivity and anaphylaxis upon exposure to this drug.

**12. Ecological information**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

**Components**

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Alcohol (in the sterile diluent)</td>
<td>Daphnia magna (Water Flea)</td>
<td>230 mg/L, 48 Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>66 mg/L, 21 Day(s) Reproduction</td>
</tr>
<tr>
<td></td>
<td>Pseudokirchneriella subcapitata (Green Alga)</td>
<td>500 mg/L, 72 Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pimephales promelas (Fathead Minnow)</td>
</tr>
<tr>
<td>Sodium hydroxide (CAS 1310-73-2)</td>
<td>Fish</td>
<td>10 mg/l, 96 hours</td>
</tr>
<tr>
<td>Crustacea</td>
<td>LC50</td>
<td>Water flea (Ceriodaphnia dubia)</td>
</tr>
<tr>
<td>Fish</td>
<td>EC50</td>
<td>Western mosquitofish (Gambusia affinis)</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 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

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 applicable.

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)
Sodium hydroxide (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification
Not regulated.

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

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance
Not listed.

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
Not regulated.

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

Safe Drinking Water Act (SDWA)
Not regulated.

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.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Sodium hydroxide (CAS 1310-73-2)

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          01-06-2014
Revision date       04-05-2017
Version #           04

Further information
Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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