SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Enrofloxacin Liquid (20%) Formulation

SECTION 1. IDENTIFICATION

Product name: Enrofloxacin Liquid (20%) Formulation

Manufacturer or supplier’s details
Company name of supplier: Merck & Co., Inc
Address: 126 E. Lincoln Avenue
Rahway, New Jersey U.S.A. 07065
Telephone: 908-740-4000
Emergency telephone: 1-908-423-6000
E-mail address: EHSDATASTEWARD@merck.com

Recommended use of the chemical and restrictions on use
Recommended use: Veterinary product
Restrictions on use: Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Acute toxicity (Oral): Category 4
Skin corrosion: Category 1A
Serious eye damage: Category 1
Reproductive toxicity: Category 2
Specific target organ toxicity - repeated exposure: Category 1 (cartilage, Testis)
Specific target organ toxicity - repeated exposure: Category 2 (Respiratory Tract)

GHS label elements
Hazard pictograms:

Signal Word: Danger

Hazard Statements: If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H361f Suspected of damaging fertility.
H372 Causes damage to organs (cartilage, Testis) through pro-
Enrofloxacin Liquid (20%) Formulation

Precautionary Statements:

**Prevention:**
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe mist or vapors.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves, protective clothing, eye protection and face protection.

**Response:**
- P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER.
- P303 + P361 + P353 + P310 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER.
- P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER.
- P308 + P313 IF exposed or concerned: Get medical attention.
- P363 Wash contaminated clothing before reuse.

**Storage:**
- P405 Store locked up.

**Disposal:**
- P501 Dispose of contents and container to an approved waste disposal plant.

Other hazards
Corrosive to the respiratory tract.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

**Components**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrofloxacin</td>
<td>93106-60-6</td>
<td>&gt;= 10 - &lt;= 20</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>&gt;= 2.5 - &lt;= 5</td>
</tr>
<tr>
<td>Disodium EDTA, dihydrate</td>
<td>6381-92-6</td>
<td>1</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES
Enrofloxacin Liquid (20%) Formulation

General advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

If inhaled: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention immediately.

If swallowed: If swallowed, DO NOT induce vomiting. If vomiting occurs have person lean forward. Call a physician or poison control center immediately. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Harmful if swallowed. Causes serious eye damage. Suspected of damaging fertility. Causes damage to organs through prolonged or repeated exposure. Causes severe burns. Causes digestive tract burns. Corrosive to respiratory system.

Protection of first-aiders: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: None known.

Specific hazards during firefighting: Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Carbon oxides
Metal oxides
Nitrogen oxides (NOx)

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.
Enrofloxacin Liquid (20%) Formulation

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions:
Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:
Soak up with inert absorbent material. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures:
Static electricity may accumulate and ignite suspended dust causing an explosion. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Local/Total ventilation:
If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling:
Do not get on skin or clothing. Do not breathe mist or vapors. Do not swallow. Do not get in eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety.
practice, based on the results of the workplace exposure assessment.  
Keep container tightly closed.  
Minimize dust generation and accumulation.  
Keep container closed when not in use.  
Keep away from heat and sources of ignition.  
Take precautionary measures against static discharges.  
Do not eat, drink or smoke when using this product.  
Take care to prevent spills, waste and minimize release to the environment.

**Conditions for safe storage:**  
Keep in properly labeled containers.  
Store locked up.  
Keep tightly closed.  
Store in accordance with the particular national regulations.

**Materials to avoid:**  
Do not store with the following product types:  
- Strong oxidizing agents  
- Self-reactive substances and mixtures  
- Organic peroxides  
- Explosives  
- Gases

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrofloxacin</td>
<td>93106-60-6</td>
<td>TWA</td>
<td>0.2 mg/m³ (OEB 2)</td>
<td>Internal</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>C</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
</tbody>
</table>

**Engineering measures:**  
Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., dripless quick connections).  
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.  
Laboratory operations do not require special containment.

**Personal protective equipment**  
**Respiratory protection:**  
General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn.  
Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide
### Hand protection
- **Material**: Chemical-resistant gloves

### Eye protection
- Wear safety glasses with side shields or goggles.
- If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
- Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

### Skin and body protection
- **Work uniform or laboratory coat.**

### Hygiene measures
- If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
- When using do not eat, drink or smoke.
- Wash contaminated clothing before re-use.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Aqueous solution</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>light yellow</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>10.5 - 12.5</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Initial boiling point and boiling range</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>May form explosive dust-air mixture during processing, handling or other means.</td>
</tr>
<tr>
<td><strong>Flammability (liquids)</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Upper explosion limit / Upper flammability limit</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Lower explosion limit / Lower flammability limit</strong></td>
<td>No data available</td>
</tr>
</tbody>
</table>
Enrofloxacin Liquid (20%) Formulation

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions

- May form explosive dust-air mixture during processing, handling or other means.
- Can react with strong oxidizing agents.

Conditions to avoid

- Heat, flames and sparks.
- Avoid dust formation.

Incompatible materials

- Oxidizing agents
- Acids

Hazardous decomposition products

- No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact
# Enrofloxacin Liquid (20%) Formulation

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date</th>
<th>SDS Number</th>
<th>Date of last issue</th>
<th>Date of first issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>09/30/2023</td>
<td>9743109-00007</td>
<td>04/04/2023</td>
<td>10/13/2021</td>
</tr>
</tbody>
</table>

## Acute toxicity
Harmful if swallowed.

### Product:

- **Acute oral toxicity**: Acute toxicity estimate: 1,806 mg/kg
  
  Method: Calculation method

- **Acute inhalation toxicity**: Acute toxicity estimate: 150 mg/l
  
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Method: Calculation method

- **Acute dermal toxicity**: Acute toxicity estimate: > 5,000 mg/kg
  
  Method: Calculation method

## Components:

### Enrofloxacin:

- **Acute oral toxicity**: LD50 (Rabbit): 500 - 800 mg/kg
  
  LD50 (Rat): > 5,000 mg/kg
  
  LD50 (Mouse): > 5,000 mg/kg

- **Acute dermal toxicity**: LD50 (Rabbit): > 2,000 mg/kg

### Potassium hydroxide:

- **Acute oral toxicity**: LD50 (Rat): 333 mg/kg

- **Acute inhalation toxicity**: Assessment: Corrosive to the respiratory tract.

### Disodium EDTA, dihydrate:

- **Acute oral toxicity**: LD50 (Rat): 2,800 mg/kg

- **Acute inhalation toxicity**: LC50 (Rat, male): > 1 mg/l
  
  Exposure time: 6 h
  Test atmosphere: dust/mist
  Method: OECD Test Guideline 412

## Skin corrosion/irritation
Causes severe burns.

### Components:

#### Enrofloxacin:

Result: No skin irritation

#### Potassium hydroxide:

- **Species**: Rabbit
  
  Result: Corrosive after 3 minutes or less of exposure
Enrofloxacin Liquid (20%) Formulation

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>SDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>09/30/2023</td>
<td>9743109-00007</td>
<td>04/04/2023</td>
<td>10/13/2021</td>
</tr>
</tbody>
</table>

**Components:**

**Enrofloxacin:**
- **Result:** Mild eye irritation

**Potassium hydroxide:**
- **Species:** Rabbit
- **Result:** Irreversible effects on the eye

**Disodium EDTA, dihydrate:**
- **Species:** Rabbit
- **Result:** No eye irritation

**Respiratory or skin sensitization**

**Skin sensitization**
Not classified based on available information.

**Respiratory sensitization**
Not classified based on available information.

**Components:**

**Enrofloxacin:**
- **Test Type:** Maximization Test
- **Routes of exposure:** Dermal
- **Species:** Guinea pig
- **Result:** Not a skin sensitizer.

**Potassium hydroxide:**
- **Test Type:** Intracutaneous test
- **Species:** Guinea pig
- **Result:** negative

**Disodium EDTA, dihydrate:**
- **Test Type:** Maximization Test
- **Routes of exposure:** Skin contact
- **Species:** Guinea pig
- **Method:** OECD Test Guideline 406
- **Result:** negative
- **Remarks:** Based on data from similar materials

**Germ cell mutagenicity**
Not classified based on available information.
Enrofloxacin Liquid (20%) Formulation

Components:

Enrofloxacin:
- Genotoxicity in vitro: Test Type: Chromosomal aberration
  Result: positive
- Genotoxicity in vivo:
  - Test Type: Micronucleus test
    Species: Mouse
    Result: negative
  - Test Type: Mammalian bone marrow sister chromatid exchange
    Species: Hamster
    Result: negative
  - Test Type: Chromosomal aberration
    Species: Rat
    Result: negative

Potassium hydroxide:
- Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
  Result: negative

Disodium EDTA, dihydrate:
- Genotoxicity in vitro:
  - Test Type: Bacterial reverse mutation assay (AMES)
    Result: negative
  - Remarks: Based on data from similar materials
    - Test Type: In vitro mammalian cell gene mutation test
      Result: negative
    - Test Type: Chromosome aberration test in vitro
      Result: negative
      Remarks: Based on data from similar materials
- Genotoxicity in vivo:
  - Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
    Species: Mouse
    Application Route: Ingestion
    Method: OECD Test Guideline 474
    Result: negative

Carcinogenicity
Not classified based on available information.

Components:

Enrofloxacin:
- Species: Rat
- Application Route: Oral
- Exposure time: 2 Years
- Result: negative
Species: Mouse
Application Route: Oral
Exposure time: 2 Years
Result: negative

Disodium EDTA, dihydrate:
Species: Rat
Application Route: Ingestion
Exposure time: 103 weeks
Result: negative
Remarks: Based on data from similar materials

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Suspected of damaging fertility.

Components:

Enrofloxacin:
Effects on fertility: Test Type: Two-generation study
Species: Rat
Application Route: Oral
Fertility: LOAEL: 15 mg/kg body weight
Result: Effects on fertility, alteration in sperm morphology

Effects on fetal development: Test Type: Development
Species: Rat
Application Route: Oral
Developmental Toxicity: LOAEL: 210 mg/kg body weight
Result: Reduced fetal weight, No teratogenic effects.
Remarks: Maternal toxicity observed.

Test Type: Development
Species: Rabbit
Application Route: Oral
Developmental Toxicity: NOAEL: 25 mg/kg body weight
Result: No fetotoxicity, No teratogenic effects.

Reproductive toxicity - Assessment: Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Disodium EDTA, dihydrate:
Effects on fertility: Test Type: Four-generation reproduction toxicity study
Enrofloxacin Liquid (20%) Formulation

Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development:
Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Causes damage to organs (cartilage, Testis) through prolonged or repeated exposure.
May cause damage to organs (Respiratory Tract) through prolonged or repeated exposure.

Components:

Enrofloxacin:
Target Organs: cartilage, Testis
Assessment: Causes damage to organs through prolonged or repeated exposure.

Disodium EDTA, dihydrate:
Routes of exposure: inhalation (dust/mist/fume)
Target Organs: Respiratory Tract
Assessment: May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Components:

Enrofloxacin:
Species: Rat
NOAEL: 36 mg/kg
LOAEL: 150 mg/kg
Application Route: Oral
Exposure time: 13 Weeks
Target Organs: Testis

Species: Dog
NOAEL: 3 mg/kg
LOAEL: 9.6 mg/kg
Application Route: Oral
Exposure time: 13 Weeks
Target Organs: cartilage

Species: Cat
NOAEL: 25 mg/kg
Application Route: Oral
Exposure time: 30 Days
Enrofloxacin Liquid (20%) Formulation

**Remarks:**
No significant adverse effects were reported

**Disodium EDTA, dihydrate:**
- **Species:** Rat
- **NOAEL:** 500 mg/kg
- **Application Route:** Ingestion
- **Exposure time:** 13 Weeks

**LOAEL:** 0.03 mg/l
- **Application Route:** inhalation (dust/mist/fume)
- **Exposure time:** 4 Weeks
- **Method:** OECD Test Guideline 412

**Aspiration toxicity**
Not classified based on available information.

**Experience with human exposure**

**Components:**

**Enrofloxacin:**
- **Ingestion:** Symptoms: Gastrointestinal disturbance, central nervous system effects, Sensitivity to light

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**Enrofloxacin:**
- **Toxicity to fish:**
  - LC50 (Lepomis macrochirus (Bluegill sunfish)): 79.5 mg/l
  - Exposure time: 96 h
  - LC50 (Oncorhynchus mykiss (rainbow trout)): > 196 mg/l
  - Exposure time: 96 h
  - LC50 (Oryzias latipes (Japanese medaka)): > 100 mg/l
  - Exposure time: 96 h

- **Toxicity to daphnia and other aquatic invertebrates:**
  - EC50 (Hyalella azteca (Amphipod)): > 206 mg/l
  - Exposure time: 96 h
  - EC50 (Daphnia magna (Water flea)): 79.9 mg/l
  - Exposure time: 48 h

- **Toxicity to algae/aquatic plants:**
  - EC50 (Pseudokirchneriella subcapitata (green algae)): 3.1 mg/l
  - Exposure time: 72 h
  - EC50 (Microcystis aeruginosa (blue-green algae)): 0.049 mg/l
  - Exposure time: 5 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

- **NOEC (Daphnia magna (Water flea)):** 9.8 mg/l
  Exposure time: 21 d
- **NOEC (Daphnia magna (Water flea)):** 5 mg/l
  Exposure time: 21 d
- **LOEC (Daphnia magna (Water flea)):** 15 mg/l
  Exposure time: 21 d

**Disodium EDTA, dihydrate:**

- **Toxicity to fish:**
  - **LC50 (Lepomis macrochirus (Bluegill sunfish)):** > 100 mg/l
  - Exposure time: 96 h
  - Remarks: Based on data from similar materials

- **Toxicity to algae/aquatic plants:**
  - **ErC50 (Pseudokirchneriella subcapitata (green algae)):** > 100 mg/l
  - Exposure time: 72 h
  - Method: OECD Test Guideline 201
  - Remarks: Based on data from similar materials
  - **EC10 (Pseudokirchneriella subcapitata (green algae)):** > 1 mg/l
  - Exposure time: 72 h
  - Method: OECD Test Guideline 201
  - Remarks: Based on data from similar materials

**Persistence and degradability**

**Components:**

**Disodium EDTA, dihydrate:**

- **Biodegradability:**
  - Result: Not readily biodegradable.
  - Biodegradation: 2%
  - Exposure time: 28 d
  - Method: OECD Test Guideline 301D

**Bioaccumulative potential**

**Components:**

**Enrofloxacin:**
Enrofloxacin Liquid (20%) Formulation

**Partition coefficient: n-octanol/water**
- log Pow: 0.5

**Disodium EDTA, dihydrate:**
- Bioaccumulation:
  - Species: Lepomis macrochirus (Bluegill sunfish)
  - Bioconcentration factor (BCF): < 500
  - Remarks: Based on data from similar materials
- log Pow: -4.3

**Mobility in soil**

**Components:**

**Enrofloxacin:**
- Distribution among environmental compartments: Koc: 5.55

**Other adverse effects**
- No data available

### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**
- Waste from residues: Dispose of in accordance with local regulations. Do not dispose of waste into sewer.
- Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

### SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**
- UN number: UN 1814
- Proper shipping name: POTASSIUM HYDROXIDE SOLUTION
- Class: 8
- Packing group: II
- Labels: 8
- Environmentally hazardous: no

**IATA-DGR**
- UN/ID No.: UN 1814
- Proper shipping name: Potassium hydroxide solution
- Class: 8
- Packing group: II
- Labels: Corrosive
- Packing instruction (cargo aircraft): 855
- Packing instruction (passenger aircraft): 851

**IMDG-Code**
UN number : UN 1814
Proper shipping name : POTASSIUM HYDROXIDE SOLUTION (Enrofloxacin)
Class : 8
Packing group : II
Labels : 8
EmS Code : F-A, S-B
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
UN/ID/NA number : UN 1814
Proper shipping name : Potassium hydroxide, solution
Class : 8
Packing group : II
Labels : CORROSIVE
ERG Code : 154
Marine pollutant : yes(Enrofloxacin)

Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>1000</td>
<td>20000</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust
Acute toxicity (any route of exposure)
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Enrofloxacin Liquid (20%) Formulation

SAFETY DATA SHEET
according to the OSHA Hazard Communication Standard

Enrofloxacin Liquid (20%) Formulation

Version 2.5  Revision Date: 09/30/2023  SDS Number: 9743109-00007  Date of last issue: 04/04/2023
Date of first issue: 10/13/2021

US State Regulations

Pennsylvania Right To Know

Water 7732-18-5
Enrofloxacin 93106-60-6
Potassium hydroxide 1310-58-3

California List of Hazardous Substances

Potassium hydroxide 1310-58-3

California Permissible Exposure Limits for Chemical Contaminants

Potassium hydroxide 1310-58-3

The ingredients of this product are reported in the following inventories:

AICS: not determined
DSL: not determined
IECSC: not determined

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
<th>Special hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS® IV:

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH: USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL: USA. NIOSH Recommended Exposure Limits
ACGIH / C: Ceiling limit
NIOSH REL / C: Ceiling value not be exceeded at any time.

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation,
Enrofloxacin Liquid (20%) Formulation

Sources of key data used to compile the Material Safety Data Sheet:

Revision Date: 09/30/2023

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

US / Z8