SAFETY DATA SHEET
Baytril 2.27% Injectable Solution
Version 4.0 Revision Date 07/26/2010

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information
Product Name: Baytril 2.27% Injectable Solution
MSDS Number: 122000007148

Company
BAYER HEALTHCARE LLC
Animal Health Division
12707 Shawnee Mission Parkway
(West 63rd)
Shawnee, KS 66216-1846
UNITED STATES
(800) 633-3796

In case of emergency: (800) 422-9874
Chemtrec: (800) 424-9300
BAYER INFORMATION PHONE:(800) 633-3796
INTERNATIONAL:(703) 527-3887

2. HAZARDS IDENTIFICATION

Emergency Overview
Inhalation may cause nausea or dizziness. May cause respiratory tract irritation. May cause skin irritation. May cause eye irritation.

Hazard Communication (29CFR 1910.1200)
Inhalation Skin Absorption Skin Contact Eye Contact

Acute Inhalation Hazards May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Overexposure to vapor may produce dizziness, drowsiness, or nausea.

Acute Skin Hazards May cause irritation with symptoms of reddening and itching.

Acute Eye Hazards May cause irritation with symptoms of reddening, tearing and stinging.

Acute Ingestion Hazards Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.
**Chronic Effects of Exposure**

Chronic exposure to the solvent can cause defatting of the skin. Hearing loss has been associated with prolonged inhalation of butyl alcohol.

**Medical Conditions Aggravated by Exposure**

Eye disorders, Skin disorders, Respiratory tract disorders

No Carcinogenic substances as defined by IARC, NTP and/or OSHA

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredients:</th>
<th>Weight percent</th>
<th>Components</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 - 5%</td>
<td>Enrofloxacin</td>
<td>93106-60-6</td>
</tr>
<tr>
<td></td>
<td>1 - 5%</td>
<td>Butan-1-ol</td>
<td>71-36-3</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**General advice:** Take off all contaminated clothing immediately.

**If inhaled:** Remove to fresh air. Call a physician immediately.

**In case of skin contact:** After contact with skin, wash immediately with plenty of soap and water. If skin reactions occur, contact a physician.

**In case of eye contact:** In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**If swallowed:** If swallowed, seek medical advice immediately and show this container or label.

**Contact Number:** Use the Bayer Emergency Number in Section 1

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable extinguishing media:** High volume water jet

**Specific hazards during fire fighting:** Fire may cause evolution of: nitrogen oxides (NOx) Carbon
oxides

**Special protective equipment for fire-fighters:** In the event of fire, wear self-contained breathing apparatus.

**Further information:** Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use personal protective equipment.

**Methods for cleaning up:** Cover spilt product with liquid-binding material (sand, silica gel, acid binder, universal binder, hybilat). Take up mechanically and fill into labelled, closable containers.

---

### 7. HANDLING AND STORAGE

**Handling:**
Avoid formation of aerosol. Avoid contact with skin, eyes and clothing.

Take measures to prevent the build up of electrostatic charge. Keep away from open flames, hot surfaces and sources of ignition.

**Storage:**
Storage temperature: > 32 °F (> 0 °C)
Do not freeze.

---

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Butan-1-ol (71-36-3)**

- **US. ACGIH Threshold Limit Values**
  - Time Weighted Average (TWA): 20 ppm
- **US. NIOSH: Pocket Guide to Chemical Hazards**
  - Ceiling Limit Value and Time Period (if specified): 50 ppm, 150 mg/m³
- **US. NIOSH: Pocket Guide to Chemical Hazards**
  - Skin designation: Can be absorbed through the skin.
- **US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**
  - PEL: 100 ppm, 300 mg/m³

**Respiratory protection:**
Recommended Filter type: Organic vapor with prefilter

**Hand protection:**
Chemically resistant gloves.
Eye protection:
Protective goggles

Other protective measures:
Wear suitable protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>yellowish</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight Alcohol</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>no data available</td>
</tr>
<tr>
<td>Density</td>
<td>0.95 - 1.05 g/cm³</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>no data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>no data available</td>
</tr>
<tr>
<td>Miscibility with water</td>
<td>no data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
</tr>
<tr>
<td>pH</td>
<td>11.1 - 11.5</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>no data available</td>
</tr>
<tr>
<td>(n-octanol/water)</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>127.04 °F (52.8 °C)</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>not determined</td>
</tr>
<tr>
<td>Explosion limits</td>
<td></td>
</tr>
<tr>
<td>Explosion limits:</td>
<td>upper: 11.3 % (V) / lower: 1.4 % (V)</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Conditions to avoid: Protect from frost.

Materials to avoid: Oxidizing agents

Hazardous reactions: None known.

Thermal decomposition:
no data available

Hazardous decomposition products:
nitrogen oxides (NOx), Carbon oxides

11. TOXICOLOGICAL INFORMATION

Other information on toxicity:
No data is available on the product itself.

**Acute oral toxicity:**
Enrofloxacin
LD50 rat: > 5,000 mg/kg

**Acute inhalation toxicity:**
Butan-1-ol
LC50 rat: 8,000 mg/l

**Skin irritation:**
Enrofloxacin
rabbit
Result: No skin irritation
Method: OECD Test Guideline 404

**Eye irritation:**
Enrofloxacin
rabbit
Result: Mild eye irritation
Method: OECD Test Guideline 405

**Sensitisation:**
Enrofloxacin
Skin sensitization guinea pig
Result: Did not cause sensitization on laboratory animals.
Method: Buehler Test

**Genotoxicity in vitro:**
Butan-1-ol
Ames test
Result: negative

Micronucleus test
Result: negative

**Pharmaceutic effects:**
Enrofloxacin
Antibiotic

---

**12. ECOLOGICAL INFORMATION**

**General advice:**
Do not allow to enter surface waters or groundwater. No data is available on the product itself.

**Toxicity to fish:**
Enrofloxacin
Acute Fish toxicity: LC0 > 10 mg/l
Test species: Salmo gairdneri  Duration of test: 96 h
Acute Fish toxicity: LC0 > 9.6 mg/l
Test species: Lepomis macrochirus (Bluegill) Duration of test: 96 h

Butan-1-ol
Acute Fish toxicity: LC50 1,200 mg/l
Test species: Leuciscus idus (Golden orfe) Duration of test: 48 h

Acute Fish toxicity: LC50 1,730 mg/l
Test species: Pimephales promelas (fathead minnow) Duration of test: 96 h

Toxicity to daphnia and other aquatic invertebrates:
Enrofloxacin
EC0 >= 10 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 48 h

Butan-1-ol
EC50 1,983 mg/l
Test species: Daphnia magna (Water flea) Duration of test: 48 h

Toxicity to bacteria:
Enrofloxacin
EC0 0.003 mg/l
tested on: Pseudomonas putida

13. DISPOSAL CONSIDERATIONS

When discarded in its purchased form, this product meets the criteria of ignitability, and should be managed as hazardous waste (EPA Hazardous Waste Number D001).

Waste disposal should be in accordance with existing federal, state and local environmental control laws.

14. TRANSPORT INFORMATION

Land transport (DOT)
Non-Regulated

Inland waterway transport
Non-Regulated

Railway transport
Non-Regulated

Sea transport (IMDG)
Non-Regulated

Air transport (ICAO / IATA cargo aircraft only)
Non-Regulated

Air transport (ICAO / IATA passenger and cargo aircraft)
Non-Regulated
15. REGULATORY INFORMATION

US. Toxic Substances Control Act  This product is exempt from TSCA under Section 3 (2)(B)(vi) when used for pharmaceutical application.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)
Components
None

SARA Section 311/312 Hazard Categories  Exempt from SARA Section 311/312

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required
Components
Butan-1-ol

US. EPA CERCLA Hazardous Substances (40 CFR 302)
Components
Butan-1-ol  Reportable quantity: 5000 lbs

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists
Weight percent Components CAS-No.
1 - 5% Butan-1-ol 71-36-3

New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists
Weight percent Components CAS-No.
1 - 5% Butan-1-ol 71-36-3

California Prop. 65
To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

OSHA Hazcom Standard Rating  Hazardous

16. OTHER INFORMATION

NFPA 704M Rating

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
</tr>
</tbody>
</table>
Further information

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.