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

Product information

Product Name: Baytril® 2.27% Injectable Solution
SDS Number: 122000007148

Use : veterinary medicine

Company
BAYER HEALTHCARE LLC
Animal Health Division
12707 Shawnee Mission Parkway
(West 63rd)
Shawnee, KS 66216-1846
USA
(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

Colour: yellowish **Form:** liquid **Odour:** slight, Alcohol.

GHS Classification:

Serious eye damage : Category 1

GHS Label element:

Hazard pictograms :

Signal word : Danger

Hazard statements : H318 Causes serious eye damage.

Precautionary statements : **Prevention:**

P280 Wear protective gloves/ eye protection/ face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/ physician.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients:

Weight percent	Components	CAS-No.
2.27%	Enrofloxacin	93106-60-6
1 - 5%	n-butanol	71-36-3

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. FIREFIGHTING 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 firefighting: Fire may cause evolution of: Nitrogen oxides (NOx) Carbon

oxides

Special protective equipment for firefighters: 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.

Additional advice: No special precautions required.

Further Accidental Release Notes No special precautions required.

7. HANDLING AND STORAGE

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

Industrial uses: 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

n-butanol (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:
Safety glasses

Other protective measures:
Wear suitable protective equipment.

Please consult label for end-user requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid	
Colour:	yellowish	
Odour:	slight, Alcohol	
Odour Threshold:	No applicable information is available	
Melting point:	No applicable information is available	
Boiling point/boiling range:	No applicable information is available	
Density:	0.95 - 1.05 g/cm³	
Bulk density:	No applicable information is available	
Vapour pressure:	No applicable information is available	
Viscosity, dynamic:	No applicable information is available	
Viscosity, kinematic:	No applicable information is available	
Flow time:	No applicable information is available	
Surface tension:	No applicable information is available	
Miscibility with water:	No applicable information is available	
Water solubility:	soluble	
pH:	11.1 - 11.5	
Relative density:	No applicable information is available	
Partition coefficient:	No applicable information is available	
Solubility(ies):	No applicable information is available	
Flash point:	127.04 °F (52.8 °C)	
Flammability (solid, gas):	Does not sustain combustion.	Comparable data on substance.
Ignition temperature:	No applicable information is available	
Explosion limits:	No applicable information is available	

10. STABILITY AND REACTIVITY

Conditions to avoid: Do not allow product to come in contact with:
Exposure to light.
Heat

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

Flammability (solid, gas):
Does not sustain combustion. Method: Comparable data on substance.

Oxidizing properties:

No statements available.

Impact sensitivity:
No data available

11. TOXICOLOGICAL INFORMATION

Other information on toxicity:

No data is available on the product itself.

Acute oral toxicity:
Acute toxicity estimate (ATE) > 2,000 mg/kg
May be harmful if swallowed.
Method: Calculation method
Calculated for GHS Classification and Labelling.

Acute inhalation toxicity:
Enrofloxacin
LC50 Rat: > 2.937 mg/l, 4 h
The substance or mixture has no acute inhalation toxicity
An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.

n-butanol
LC50 Rat: 8000 ppm, 4 h

Acute dermal toxicity:
Enrofloxacin
LD50 Rabbit: > 2,000 mg/kg

n-butanol
LD50 Rabbit: 3,400 mg/kg

Skin irritation:

Enrofloxacin
Rabbit
Result: No skin irritation
Method: OECD 404

n-butanol
Rabbit
Result: Mild skin irritation
Method: OECD 404

Eye irritation:
Enrofloxacin
Rabbit
Result: Mild eye irritation
Method: OECD 405

n-butanol
Rabbit
Result: Causes serious eye damage.
Method: OECD 405

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

n-butanol
Skin sensitization guinea pig
Result: Did not cause sensitisation on laboratory animals.
Method: OECD 406

Genotoxicity in vitro:
Enrofloxacin
Ames test
Result: negative

n-butanol
Ames test
Result: negative

Micronucleus test
Result: negative

In vitro gene mutation study in mammalian cells (Hamster V79-cells)
Result: No evidence of a genotoxic effect.
Method: OECD 476

Genotoxicity in vivo:
Enrofloxacin
Micronucleus test, Mouse
Result: No indication of clastogenic effects.

n-butanol
Micronucleus test, Mouse
Result: No evidence of a genotoxic effect.
Method: OECD 474

Reproductive toxicity:
n-butanol
NOAEL: 2000 ppm
Result: Animal testing did not show any effects on fertility.
Method: OECD Test Guideline 416

Pharmaceutic effects:
Enrofloxacin
Antibiotic

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

Experience with human exposure:
Components:
71-36-3 :
May cause skin irritation and/or dermatitis.

STOT - single exposure:
Components:

71-36-3 :
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure:
No data available

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

n-butanol
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

n-butanol
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

Toxicity on soil-dwelling organisms
EnrofloxacinLC50 1000 ppm
Test species: Eisenia fetida (earthworms) Duration of test: 28 d

Biodegradability:
n-butanol
98 %, 28 d rapidly biodegradable
Method: OECD 301 E

Photodegradation:
Enrofloxacin
Water
half-life time (direct Photolysis): > 240 h

13. DISPOSAL CONSIDERATIONS

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

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

14. TRANSPORT INFORMATION

Land transport (CFR)
non-regulated

US Sea transport (IMDG)
non-regulated

US Air transport (ICAO / IATA cargo aircraft only)
non-regulated

US Air transport (ICAO / IATA passenger and cargo aircraft)
non-regulated

International IATA	**non-regulated**
IMDG	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

US. EPA CERCLA Hazardous Substances (40 CFR 302) Components

n-butanol	Reportable quantity: 5000 lbs

Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists

Weight percent	Components	CAS-No.
1 - 5%	n-butanol	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%	n-butanol	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

Health	2
Flammability	0
Reactivity	0

Other	0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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.