MATERIAL SAFETY DATA SHEET

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

TRANSPORTATION EMERGENCY
CALL CHEMTREC..... : (800) 424-9300
INTERNATIONAL ..... : (703) 527-3887

NON-TRANSPORTATION
BAYER EMERGENCY PHONE : (800) 422-9874
BAYER INFORMATION PHONE: (800) 633-3796

Section 1: Product and Company Identification

Product Name:	Baytril 2.27% Injectable Solution
Material Number:	8713254
Chemical Family:	Antimicrobial - Quinoline Compound
Chemical Name:	1-cyclopropyl-7-(4-ethyl-1-piperazinyl) -6-fluoro-1,4-dihydro-4-oxo-3-quinoline carboxylic acid
Synonyms:	Enrofloxacin
Formula:	Mixture

Section 2: Composition/Information on Ingredients

HAZARDOUS INGREDIENTS

Ingredient Name/ CAS Number	Exposure Limits	Concentration Min.	Concentration Max.
1-Butanol 71-36-3	**OSHA (PEL):** 100.00 ppm TWA 300.00 mg/m3 TWA **ACGIH (TLV):** 50.00 ppm CEIL Skin 152.00 mg/m3 CEIL Skin	3%	
Enrofloxacin 93106-60-6	**OSHA (PEL):** Not Established **ACGIH (TLV):** Not Established	2.27%	

Section 3: Hazards Identification

EMERGENCY OVERVIEW

CAUTION! Combustible. **Color:** Pale yellow **Form:** Liquid **Odor:** Slight, Alcohol
Inhalation may cause nausea or dizziness. May cause respiratory tract irritation. May cause skin irritation. May cause eye irritation.

POTENTIAL HEALTH EFFECTS

Route(s) of Entry: Inhalation, Skin Absorption, Skin Contact, Eye Contact

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Inhalation Hazards
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.

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

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

Ingestion Hazards
Acute Ingestion Hazards: Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

General Effects of Exposure
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.

Carcinogenic Components:
NTP: None

IARC: None

OSHA: None

Medical Conditions Aggravated by Exposure: Eye disorders, Skin disorders, Respiratory tract disorders

Section 4: First Aid Measures

First Aid for Eye: Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Get medical attention if irritation develops or persists.

First Aid for Skin: In case of skin contact, wash affected areas with soap and water.

Immediately remove contaminated clothing and shoes. Contact a physician if irritation develops.

First Aid for Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Call a physician.

First Aid for Ingestion: Contact a physician or Poison Control Center. If ingested, do not induce vomiting unless directed to do so by medical personnel.

Note to Physician: In case of human or animal poisoning, please contact the Poison Control Center at (800)938-3578. Please also notify Bayer at (800)422-9874.

Section 5: Fire Fighting Measures

Flash Point: 127 °F (52.8 °C)

Flammable Limits:

Upper Explosion Limit (UEL %): Not Established

Lower Explosion Limit (LEL %): Not Established

Extinguishing Media:

Suitable: Water, Carbon Dioxide, Foam

Special Fire Fighting Procedures: Use cold water spray to cool fire-exposed containers to minimize risk of rupture. Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Do not allow fire fighting water to enter sewer, surface waters, or ground water systems.

Section 6: Accidental Release Measures

Spill or Leak Procedures: Use appropriate personal protective equipment during clean up. Recover uncontaminated product, if possible. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Collect and place in appropriately marked sealable containers for disposal. Wash spill area with soap and water. Do not allow spilled material or wash water to enter sewers, surface waters, or groundwater systems.

Section 7: Handling and Storage

Storage Temperature: Room Temperature

Shelf Life: See expiration date on product container label

Special Sensitivity: Protect from freezing.

Handling/Storage Precautions: Store in a dry place in orginal or waterproof containers. Store separate from food products. Avoid contact with eyes. Avoid excessive contact with skin or clothing. Keep away from heat, sparks and open flame. Do not refrigerate.

Section 8: Exposure Controls/Personal Protection

Personal Protection Equipment

Eye Protection Requirements: Chemical safety goggles or glasses.

Skin Protection Requirements: Gloves, long sleeved shirts and pants., Lab coat.

Ventilation Requirements: Use local and general exhaust ventilation to control levels of exposure.

Respirator Requirements: A NIOSH approved air purifying respirator with organic vapor cartridges and particulate prefilter can be used to minimize exposure.

Additional Protective Measures: Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product. Follow all label instructions. Launder clothing separately after use. Employees should wash their hands and face before eating, drinking, or using tobacco products.

Section 9: Physical and Chemical Properties

Physical Form:	Liquid
Color:	Pale yellow
Odor:	Slight, Alcohol
pH:	11.1 - 11.5
Boiling Point:	Not Established
Melting/Freezing Point:	Not Established
Solubility in Water:	Soluble
Specific Gravity:	0.95 - 1.05
Bulk Density:	Not Established
Vapor Pressure:	Not Established

Section 10: Stability and Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Substances to Avoid: None known.

Conditions to Avoid: Protect from freezing.

Decomposition Products: Carbon Dioxide, Carbon monoxide, Oxides of Nitrogen, Other potentially toxic fumes

Section 11: Toxicological Information

Toxicity Data for Baytril 2.27% Injectable Solution

Toxicity Note: No data available for this product.

Toxicity Data for Enrofloxacin

Acute oral toxicity: LD50 = > 5,000 mg/kg bw (Rat)

Acute dermal toxicity: LD50 = > 2,000 mg/kg bw (Rabbit)

Acute inhalation toxicity: > 3,547 mg/kg bw, (Rat)

Eye Irritation: Moderately irritating (Rabbit)

Skin Irritation: Non-irritating (Rabbit)

Sensitization: Non-sensitizer (Guinea pig)

Repeated Dose Toxicity: Dog: NOEL = 3 mg/kg

Mutagenicity: Suspect mutagen.

Developmental Toxicity/Teratogenicity: Rabbit: NOEL = 25 mg/kg

Toxicity to Reproduction/Fertility: Rat: NOEL = 10 mg/kg

Section 12: Ecological Information

Ecological Data for Baytril 2.27% Injectable Solution

Ecological Note: No data available for this product.

Ecological Data for Enrofloxacin

Fish Toxicity: 150 mg/L, Golden orfe (Leuciscus idus)

10 mg/L, 96 hrs. Rainbow trout (Salmo gairdneri)

10 mg/L, 96 hrs. Bluegill (Lepomis macrochirus)

Invertebrate Toxicity: 100 mg/L, 24 hrs. Water flea (Daphnia magna)

Section 13: Disposal Considerations

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

Section 14: Transportation Information

Technical shipping name: **Contains** 1-Butanol;

Freight Class
Bulk: Drugs and Medicines
Package: Drugs and Medicines

Domestic Surface Transportation (DOT)
Proper Shipping Name: Consumer Commodity
Hazard Class or Division: ORM-D
Hazard Label(s): None

Marine Transportation (IMO / IMDG)
Proper Shipping Name: Flammable liquid, n.o.s.
Hazard Class Division Number: 3
UN Number: UN1993
Additional IMO Information: Ltd. Qty.
Packaging Group: III
Hazard Label(s): Flammable Liquid
Hazard Placard(s): Flammable Liquid

Air Transportation (ICAO / IATA)
Proper Shipping Name: Consumer Commodity
Hazard Class Division Number: 9
UN Number: UN8000
Hazard Label(s): Miscellaneous
Radioactive?: Non-Radioactive
Passenger Air - Max. Qty.: 25 kg
Passenger Packing Instruction: 910
Cargo Air - Max. Qty.: 25 kg
Cargo Air Packing Instruction: 910
ICAO/IATA Air Postnote: Passenger and Cargo Quantities are gross weight quantities.

Section 15: Regulatory Information

United States Federal Regulations

OSHA Hazcom Standard Rating: Hazardous

TSCA Inventory List: **This product is exempt from TSCA under Section 3 (2)(B)(vi) when used for pharmaceutical application.**

CERCLA Hazardous Substance:

Component(s)	Reportable Quantity
1-Butanol	5,000 lb

SARA Title III

SARA Section 302 Extremely Hazardous Substances:

Component(s)/ CAS Number	Concentration Min.	Concentration Max.
Exempt		

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

SARA Section 313 Toxic Chemicals:

Component(s)/ CAS Number	Reporting Threshold	Concentration Min.	Concentration Max.
Exempt			

RCRA Status: When discarded in its purchased form, this product meets the criteria of ignitability, and should be managed as a hazardous waste (EPA Hazardous Waste Number D001). (40 CFR 261.20-24)

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

State Right-to-Know Information

Component(s)/ CAS Number	**State Code**	**Concentration Min.**	**Concentration Max.**

State Code Translation Table

Section 16: Other Information

NFPA 704M Rating

Health	2
Flammability	2
Reactivity	0
Other	0

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

BAYER HEALTHCARE LLC's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by BAYER HEALTHCARE LLC as a customer service.

Contact: John Sheehan
Phone: (913) 268-2570
MSDS Number: 000000000346
Version Date: 08/27/2008
MSDS Version: 1.15

This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of BAYER HEALTHCARE LLC. The data on this sheet relates only to the specific material

designated herein. BAYER HEALTHCARE LLC assumes no legal responsibility for use or reliance upon these data.

‖ Indicates Relevant Change Made.