



Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Enrofloxacin USP

30-4815

Section 1: Identification

Product Name Enrofloxacin USP
Commercial Name Not available
Product Use Not available
Restrictions On Use Not available
Product Code 30-4815
Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Serious eye damage/eye irritation Category 2A
CFR 1910.1200

Signal Word WARNING

Hazard Statement(s) HARMFUL IF SWALLOWED.MAY CAUSE ALLERGIC SKIN REACTION.MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.

Pictogram(s) or Symbol(s)



Precautionary Statement(s):

Prevention	Wash thoroughly after handling. Wear eye protection/face protection.
Response	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.
Storage	Not available
Disposal	Not available

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Enrofloxacin
% By Weight Pure material
CAS# 93106-60-6
Molecular Weight 359.39
Chemical Formula C19H22FN3O3
Synonym(s) 3-Quinolincarboxylic acid, 1-cyclopropyl-7-(4-ethyl-1-piperazinyl)-6-fluoro-1,4-dihydro-4-oxo-;

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Enrofloxacin	93106-60-6	Pure Material	N/A	N/A



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Section 4: First-Aid Measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin Contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Symptoms/Effects	
Acute	Pharmacologically active material. Occupational exposure may cause physiological effects.
Delayed	Pharmacologically active material. Occupational exposure may cause physiological effects.
Immediate Medical Attention	
Treat symptomatically.	

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media

Water. Foam. Dry chemical or CO₂. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable Extinguishing Media

Not available.

Products of Combustion

No unusual fire or explosion hazards noted

Firefighters Special Equipment and Precautions

Wear suitable protective equipment. Use water spray to cool unopened containers. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing. Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Wear appropriate personal protective equipment. Avoid inhalation of dust from the spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS. Methods and materials for containment and cleaning up: Avoid the generation of dusts during clean-up. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS. Environmental precaution: Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Handling; As a general rule, when handling USP materials, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential. Storage: Store in tight container. This material should be handled and stored per label instructions to ensure product integrity.

Section 8: Exposure Controls/Personal Protection

Exposure Limits	Not available.
Engineering Controls	For laboratory operations, use local exhaust ventilation or a ventilated enclosure for high energy operations such as particle sizing. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred.

Personal Protection

Eye/face protection: Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available. Skin protection Hand protection: Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent. Other: Train employees in proper gowning and degowning practices. Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors. Respiratory protection: Respirators are generally not required for laboratory operations. Use a tight-fitting full-face respirator with HEPA filters for spill cleanup. Choose respiratory protection appropriate to the task and the level of existing engineering controls. Respiratory protection: Wear appropriate thermal protective clothing, when necessary.x General hygiene considerations: Handling practices in this SDS are recommendations for laboratory use of USP materials.

Section 9: Physical and Chemical Properties

Appearance	light yellow powder Solid.		
Odor	Not available.		
Odor Threshold	Not available.		
Melting Point	426.2 - 437 °F (219 - 225 °C)	pH	in aqueous solution 6.5 - 7.5 (1% s
Freezing Point	Not available.	Vapor Pressure	< 0.0000001 kPa (77 °F (25 °C))
Boiling Point/Range	Not available.	Vapor Density	Not available.
Decomposition temperature	Not available.	Viscosity	Not available.
Partition Coefficient: n-octanol/water	Not available.	Evaporation Rate	Not available.
Flash Point	Not available.	Autoignition temperature	Not available.
Flammability	Not available.	Flammability or Explosive Limits:	
		Lower	Not available.
		Upper	Not available.

Solubility(ies)	Slightly soluble in water.
Other	Chemical family Fluoroquinolone. Molecular formula C19-H22-F-N3-O3 Molecular weight 359.4 g/mol

Section 10: Stability and Reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability	Stable at normal conditions.
Hazardous Polymerization	No dangerous reaction known under conditions of normal use.
Conditions to Avoid	Contact with incompatible materials
Incompatible Materials	Strong oxidizing agents. Alkalies
Hazardous Decomposition Products	NOx. F-. Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions.

Section 11: Toxicological Information**RTECS** VB1993650**Acute Toxicity**

Acute Dermal LD50 Rabbit > 2000 mg/kg Oral LD50 Mouse 4336 mg/kg Rat 5 g/kg

Skin Corrosion/Irritation

Not found

Serious Eye Damage/Irritation

Causes serious eye irritation.

Respiratory or Skin Sensitization

Not found

Germ Cell Mutagenicity

Negative

Carcinogenicity

Not listed

Reproductive Toxicity

Not available

Routes of Entry

Eye.



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Symptoms Related to Exposure

Fluoroquinolones: Gastrointestinal disturbances. Altered taste. Dizziness. Drowsiness. Headache. Sleep disturbances. Slurred speech. Tremors. Restlessness. Convulsions. Skin rash. Joint tenderness or swelling. Numbness or tingling of hands or feet.

Potential Health Effects

Not available

Target Organ(s)

Not found

Section 12: Ecological Information

Ecotoxicity

Aquatic Crustacea EC50 Whiteleg shrimp (*Penaeus vannamei*) 0.0143 mg/l, 48 hours Acute Fish LC50 Bluegill (*Lepomis macrochirus*) 216 ppm, 96 hours

Persistence and Degradability

Not available

Bioaccumulative Potential

Octanol/water partition coefficient log Kow 3.1, (25 °C; pH 7)

Mobility in Soil

Not available

Other Adverse Effects

Not available

Section 13: Disposal Considerations

Waste Disposal

Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. The waste code should be assigned in discussion between the user, the producer and the waste disposal company 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).

Disposal of Container

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Other Considerations

Not available

Section 14: Transport Information

DOT Classification

Not DOT regulated. DOT UN number UN3077 UN proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Enrofloxacin) Transport hazard class(es) Class 9 Subsidiary risk - Packing group III

Section 15: Regulatory Information

Regulations

US federal regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200 Toxic Substances Control Act (TSCA) TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated. CERCLA Hazardous Substance List (40 CFR 302.4) Not listed. SARA 304 Emergency release notification Not regulated. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) Not listed. SARA 302 Extremely hazardous substance Superfund Amendments and Reauthorization Act of 1986 (SARA) Not listed. YesSARA 311/312 Hazardous chemical Serious eye damage or eye irritation Classified hazard categories 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. Not regulated. Safe Drinking Water Act (SDWA) US state regulations California Proposition 65 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. For more information go to www.P65Warnings.ca.gov.

Other

Not available.



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Section 16: Other Information

Not available.