

SIGMA-ALDRICH

MATERIAL SAFETY DATA SHEET

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Version 1.4

Section 1 - Product and Company Information

Product Name ENOXACIN  
Product Number E3764  
Brand FLUKA  
  
Company Sigma-Aldrich  
Address 3050 Spruce Street  
SAINT LOUIS MO 63103 US  
  
Technical Phone: 800-325-5832  
Fax: 800-325-5052  
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
ENOXACIN	74011-58-8	No

Formula C15H17FN4O3  
Synonyms AT-2266 \* Bactidan \* CI 919 \* Comprecin \* Enoram  
\* Enoxacin \*  
1-Ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperaziny  
l)-1,8-naphthyridine-3-carboxylic acid \* Flumark  
\* PD 107779  
RTECS Number: QN2800000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Caution: Avoid contact and inhalation.

HMIS RATING

HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0

NFPA RATING

HEALTH: 1  
FLAMMABILITY: 0  
REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is  
conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult,  
call a physician.

#### DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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#### Section 5 - Fire Fighting Measures

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##### FLASH POINT

N/A

##### AUTOIGNITION TEMP

N/A

##### FLAMMABILITY

N/A

##### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

##### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

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#### Section 6 - Accidental Release Measures

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##### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear protective equipment.

##### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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#### Section 7 - Handling and Storage

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##### STORAGE

Store at 2-8°C

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#### Section 8 - Exposure Controls / PPE

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##### ENGINEERING CONTROLS

Mechanical exhaust required.

##### PERSONAL PROTECTIVE EQUIPMENT

Other: Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

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#### Section 9 - Physical/Chemical Properties

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Appearance

Physical State: Solid

Property

Value

At Temperature or Pressure

Molecular Weight

320.3 AMU

pH	N/A
BP/BP Range	N/A
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Surface Tension	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A
Refractive Index	N/A
Optical Rotation	N/A
Miscellaneous Data	N/A
Solubility	N/A

N/A = not available

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## Section 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen fluoride.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## Section 11 - Toxicological Information

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### ROUTE OF EXPOSURE

Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption. May cause irritation.

### SIGNS AND SYMPTOMS OF EXPOSURE

May cause nausea, headache, dizziness, lightheadedness, crystalluria, gastrointestinal or neurological adverse effects.

### TOXICITY DATA

Oral

Rat

> 5000 mg/kg

LD50

Subcutaneous

Rat

>2 GM/KG

LD50

Remarks: Behavioral:Ataxia. Behavioral:Altered sleep time

(including change in righting reflex). Skin and Appendages:  
Other: Hair.

Intravenous

Rat

236 MG/KG

LD50

Remarks: Behavioral:Somnolence (general depressed activity).

Behavioral:Convulsions or effect on seizure threshold.

Behavioral:Ataxia.

Oral

Mouse

> 4000 mg/kg

LD50

Intraperitoneal

Mouse

3600 MG/KG

LD50

Subcutaneous

Mouse

1100 MG/KG

LD50

Intravenous

Mouse

327 MG/KG

LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Behavioral:Somnolence (general depressed activity).

Behavioral:Ataxia.

Oral

Dog

> 1600 mg/kg

LD50

Remarks: Behavioral:Food intake (animal).

Gastrointestinal:Hypermotility, diarrhea.

Oral

Monkey

> 1600 mg/kg

LD50

Remarks: Behavioral:Food intake (animal).

Gastrointestinal:Hypermotility, diarrhea.

#### CHRONIC EXPOSURE - TERATOGEN

Species: Rat

Dose: 11 GM/KG

Route of Application: Oral

Exposure Time: (7-17D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death,  
e.g., stunted fetus). Specific Developmental Abnormalities:

Musculoskeletal system.

#### CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat

Dose: 91 GM/KG

Route of Application: Oral  
Exposure Time: (13W MALE)  
Result: Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females).

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#### Section 12 - Ecological Information

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No data available.

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#### Section 13 - Disposal Considerations

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##### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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#### Section 14 - Transport Information

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##### DOT

Proper Shipping Name: None  
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

##### IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

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#### Section 15 - Regulatory Information

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##### US CLASSIFICATION AND LABEL TEXT

US Statements: Caution: Avoid contact and inhalation.

##### UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

##### CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

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#### Section 16 - Other Information

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##### DISCLAIMER

For R&D use only. Not for drug, household or other uses.

##### WARRANTY

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