

According to EC Regulation 1907/2006 (REACH)



## PRODUCT SAFETY DATA SHEET

### ENROFLOX INJECTION 2.27%

#### 1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND OF COMPANY / UNDERTAKING

- |     |                                |  |
|-----|--------------------------------|--|
| 1.1 | <b>Product identifier</b>      | Enroflox Injection 2.27%   |
| 1.2 | <b>Relevant identified use</b> | Designed for the organisation of bacterial pathogens, with action against both gram-negative and gram-positive bacteria. Injectable antimicrobial solution.                                  |
| 1.3 | <b>Details of supplier</b>     | Norbrook, Inc.<br>9733 Loiret Blvd<br>Lenexa, KS 66219<br>Phone: 913 599 5777<br>Fax: 913 599 5766   |
| 1.4 | <b>Details of Manufacturer</b> | Norbrook Laboratories Ltd,<br>Station Works, Newry, Co.Down,<br>N.Ireland, BT35 6JP.<br>Telephone No. +44 (0)28 3026 4435<br>Fax No. +44 (0)28 3026 1721<br>E-Mail: enquiries@norbrook.co.uk |
| 1.5 | <b>Emergency Telephone No.</b> | +44 (0) 28 3026 4435   |

#### 2. HANDLING AND STORAGE

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|-----|--------------------------------------|---|
| 2.1 | <b>Precautions for safe handling</b> | Avoid contact with eyes, skin and clothing. Do not ingest. Do not smoke or eat while handling the mixture. Wash thoroughly after handling. The containers should be stored in their original boxes when not in use.   |
| 2.2 | <b>Conditions for safe storage</b>   | Store in closed containers in a dry, well-ventilated area away from oxidisers, heat, sparks and open flame. Protect containers from physical damage and light. Do not freeze the mixture or refridgerate.<br><br>Keep container closed when not in use. Before opening large containers, release any pressure build-up by loosening closure slowly. Do not transfer contents to unlabelled containers. Use only with adequate ventilation. Keep out of reach of children. |
| 2.3 | <b>Specific End Use</b>              | Refer to section 1.2  |

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### 3. HAZARDS IDENTIFICATION

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#### 3.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Skin irritation (Category 2)

Serious eye damage (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Flammable. Harmful if swallowed.

Irritating to respiratory system and skin.

Risk of serious damage to eyes.

Vapours may cause drowsiness and dizziness.

#### 3.2 Label elements



Signal Word : Danger

Hazard statement(s)

H315 : Causes skin irritation.

H318 : Causes serious eye damage.

Precautionary statement(s)

P101 : If medical advice is needed , have product container or label at hand.

P102 : Keep out of reach of children .

P103 : Read label before use.

P280 : Wear protective gloves /protective clothing / eye protection / face protection.

P302 + P352 : IF ON SKIN : Wash with plenty of soap and water.

P305 + P351 + P338 : IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

P310 : Immediately call a POISON CENTRE or doctor/physician.

P362 : Take off contaminated clothing and wash before reuse.

P501 : Dispose of the contents/containers in accordance with current legislation on waste treatment.

### 3.3 Other hazards

None known.

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation : Remove to fresh air. If any signs or symptoms occur or persist seek medical advice.

Skin Contact : Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse.

Eyes Contact : Immediately flush eyes with copious amounts of water for at least 15 minutes. If irritation persists, seek medical attention.

Ingestion : Do not induce vomiting. Seek medical attention.

### 4.2 Most Important symptoms and effects, both acute and delayed

Include drying, cracking of the skin and/or skin irritation. Further known symptoms and effects are described in the labelling (see section 3)

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media:

#### Suitable extinguishing media

Use carbon dioxide, dry chemical or alcohol-resistant foam spray extinguishers. Use water spray to cool fire-exposed containers. A fine water mist may be used to smother or to disperse vapours.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides



- 5.3 Advice for fire-fighters**  
Wear a self contained breathing apparatus for fire fighting if necessary. Do not use a solid stream of water since the steam will scatter and spread the fire.
- 5.4 Further Information**  
Use cold water spray to cool fire exposed containers to minimise risk of rupture. Fire-fighters 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.

## 6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions**  
Provide good ventilation. Prevent skin and eye contact. Eliminate all ignition sources.
- 6.2 Environmental Precautions**  
Keep away from drains, surface-water, ground-water and soil.
- 6.3 Method for Clean-up**  
Absorb small spills on spill pillows, sand, sawdust or other suitable absorbing material.

## COMPOSITION / INFORMATION ON INGREDIENTS

### 7.1 Substances

<i>Hazardous Ingredients</i>	<i>% Wt/V</i>	<i>CAS No.</i>	<i>EC No.</i>	<i>Symbol</i>	<i>Risk and Safety Phrases/Hazard and Precautionary Statements/</i>
Enrofloxacin	2.27	93106-60-6	-----	-----	-----
Butyl Alcohol	3.0	71-36-3	200-751-6		H226, H302, H315, H318, H335, H336 S7/9, S13, S26, S37/39, S46 P261, P280, P305 + P351 + P338 , R10, R22, R37/38, R41, R67,
Potassium Hydroxide Ph. Eur.	<1.0%	1310-58-3	-----		H290, H302, H314, P280, P305 + P351 + P338, P310

## 8. PHYSICAL AND CHEMICAL PROPERTIES

### 8.1 Information on Basic Physical and Chemical Properties

- |                     |   |                   |
|---------------------|---|-------------------|
| a) Form             | : | Liquid            |
| b) Colour           | : | Pale yellow       |
| c) Odour            | : | Slight alcohol    |
| d) Flash point      | : | (52.8°C) 127°F    |
| e) Water solubility | : | no data available |

## 9. STABILITY AND REACTIVITY

### 9.1 Reactivity

No data available

### 9.2 Chemical Stability

Stable under normal conditions of storage and use.

### 9.3 Conditions to avoid

Protect from freezing

### 9.4 Materials to avoid

None known

## 10. TOXICOLOGICAL INFORMATION

### 10.1 Information on toxicological effects

#### Exposure Effects (Acute)

- |              |   |  |
|--------------|---|--|
| Eye Contact  | : | Direct contact of the solution with eyes can cause irritation.   |
| Skin Contact | : | Prolonged or repeated contact with the mixture may cause irritation and/or drying and cracking of the skin |
| Inhalation   | : | May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.              |
| Ingestion    | : | Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhoea.                         |

#### Exposure Effects ( Chronic )

Unknown for the product mixture. When this mixture is used according to the directions, prolonged exposure of man is not expected. Both its mutagenicity and its teratogenicity are not known.

## 11. ECOLOGICAL INFORMATION

### 11.1 Toxicity

Data on the ecological implications for Enroflox 2.27 is not yet available.

Ecological Data for Enrofloxacin:

Fish Toxicity: 150mg/L, Golden orfe (*Leuciscus idus*)  
 10mg/L, 96hrs. Rainbow trout (*Salmo gairdneri*)  
 10mg/L, 96hrs. Bluegill (*Lepomis macrochirus*)

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

## 12. DISPOSAL CONSIDERATIONS

### 12.1 Waste Treatment Methods

Product/Residues	:	Do not discharge the material into surface or waste water. For disposal, use an incinerator licensed for chemical waste.
Package	:	Dispose of waste containers using regular disposal methods in accordance with local and national environmental regulations.

## 13. TRANSPORT INFORMATION

### 13.1 UN number

ADR/RID :	-	IMDG: -	IATA: -
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### 13.2 UN proper shipping name

ADR/RID:	-
IMDG:	-
IATA:	-

### 13.3 Transport hazard class(es)

ADR/RID :	-	IMDG: -	IATA: -
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### 13.4 Packing group

ADR/RID :	-	IMDG: -	IATA: -
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### 13.5 Environmental hazards

ADR/RID :	-	IMDG Marine pollutant : -	IATA: -
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### 13.6 Special precautions for user

Not applicable

**14. REGULATORY INFORMATION**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**14.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available

**14.2 Chemical Safety Assessment**

For this mixture a safety assessment was not carried out

**15. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Butanol

Component	CAS- No.	Value	Control Parameters	Basis
Butanol	71-36-3	STEL	50ppm 154/mg <sup>3</sup>	UK. EH40 WEL

**15.2 Exposure controls****Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands with soap and water after handling.

**15.3 Personal protective equipment****Respiratory protection**

When handled in accordance with good industrial hygiene and safety practice, there may be none required.

**Hand protection**

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the Standard EN 374 derived from it. Handle with gloves.

**Eye protection**

Safety glasses with side-shields conforming to EN166

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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**16. OTHER INFORMATION**

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**Full text of H-Statements referred to under Sections 3 and 7**

H290 :	May be corrosive to metals.
H302 :	Harmful if swallowed.
H314 :	Causes severe skin burns and eye damage.
H226 :	Flammable liquid and vapour.
H315 :	Causes skin irritation.
H318 :	Causes serious eye damage.
H335 :	May cause respiratory irritation.
H336 :	May cause drowsiness or dizziness.

**Full text of P-Statements referred to under Sections 3 and 7**

P261 :	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 :	Wear protective gloves/ eye protection/ face protection.
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.

**Full text of R-Phrases referred to under Sections 3 and 7**

R10 :	Flammable.
R22 :	Harmful if swallowed.
R37/38 :	Irritating to respiratory system and skin.
R41 :	Risk of serious damage to eyes.
R67 :	Vapours may cause drowsiness and dizziness.

**Full text of S-Phrases referred to under Sections 3 and 7**



- S 7/9 : Keep container tightly closed and in a well-ventilated place.
- S13 : Keep away from food, drink and animal feeding stuffs.
- S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S37/39 : Wear suitable gloves and eye/face protection.
- S46 : If swallowed, seek medical advice immediately and show this container or label.

Revision Date : 13/05/2014

Revision No : 1.0

Revision History : New MSDS

Printing Date : 25/06/2014

Supplier's data sheets and various chemicals and pharmaceuticals databases were used to compile this sheet.

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