

SECTION 1: IDENTIFICATION**1.1. Product Identifier****Product Form:** Mixture**Product Name:** Enromed**1.2. Intended Use of the Product**

Antibacterial treatment for animals

1.3. Name, Address, and Telephone of the Responsible Party**Distributor**Bimeda-MTC Animal Health Inc. / Bimeda-MTC Sante Animale
Inc.

Bimeda Inc.

One Tower Lane

Oakbrook Terrace Tower

Oakbrook Terrace, IL 60181

T 630-928-0361

F 630-928-0362

www.bimeda.com**1.4. Emergency Telephone Number****Emergency Number** : 519-654-8139, 800-424-9300 CHEMTREC (in US); +1 703-527-3887 CHEMTREC (Maritime)**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the Substance or Mixture****GHS-US/CA Classification**

Eye Dam. 1 H318

Resp. Sens. 1 H334

Skin Sens. 1 H317

Full text of hazard classes and H-statements : see section 16

2.2. Label Elements**GHS-US/CA Labeling****Hazard Pictograms (GHS-US/CA)** :**Signal Word (GHS-US/CA)** :

: Danger

Hazard Statements (GHS-US/CA) :

: H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements (GHS-US/CA) :

: P261 - Avoid breathing vapors, mist, or spray.

P272 - Contaminated work clothing should not be allowed out of the workplace.

P280 - Wear protective gloves, protective clothing, and eye protection.

P284 - [In case of inadequate ventilation] wear respiratory protection.

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

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

P321 - Specific treatment (see section 4 on this SDS).

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

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P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents/container in accordance with local, regional, national, territorial, provincial and international regulations.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture**

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
L-Arginine	Arginine / Arginine L- / Arginine, L- / l-Arginine / ARGININE / (S)-2-Amino-5-[[aminoiminomethyl]amino]pentanoic acid	(CAS-No.) 74-79-3	10 - 30	Eye Irrit. 2, H319 Comb. Dust
1-Cyclopropyl-7-(4-ethyl-1-piperazinyl)-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid	Enrofloxacin / 3-Quinolonecarboxylic acid, 1-cyclopropyl-7-(4-ethyl-1-piperazinyl)-6-fluoro-1,4-dihydro-4-oxo-	(CAS-No.) 93106-60-6	5 - 10	Resp. Sens. 1, H334 Skin Sens. 1, H317
1-Butanol	n-Butyl alcohol / n-Butanol / Butanol, 1- / 1-Butyl alcohol / 1-Hydroxybutane / Butyl alcohol, n- / Butanol, n- / Butan-1-ol / Normal butyl alcohol / N-BUTYL ALCOHOL / Butyl alcohol / Butanol	(CAS-No.) 71-36-3	1 - 5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336 STOT SE 3, H335
Benzyl alcohol	Benzenecarbinol / Benzenemethanol / Methanol, phenyl- / Phenylmethanol / Phenylmethyl alcohol / BENZYL ALCOHOL / .alpha.-Hydroxytoluene	(CAS-No.) 100-51-6	1 - 5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2A, H319 Aquatic Acute 2, H401

Full text of H-phrases: see section 16

*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

** The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2015-17 and 29 CFR 1910.1200.

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Immediately drench affected area with water for at least 15 minutes. Remove contaminated clothing. Obtain medical attention if irritation/rash develops or persists.

Eye Contact: Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Skin sensitization. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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Inhalation: Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction. Aspiration of this material may cause chemical pneumonia.

Skin Contact: May cause an allergic skin reaction.

Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: Repeated exposure may damage the retina.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrogen cyanide. Hydrogen Fluoride (HF).

5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing vapors, mist, spray. Do not get in eyes, on skin, or on clothing.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

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Incompatible Materials: Strong acids, strong bases, strong oxidizers. Halogens.

7.3. Specific End Use(s)

Antibacterial treatment for animals

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

1-Butanol (71-36-3)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA OSHA	OSHA PEL (TWA) (mg/m ³)	300 mg/m ³
USA OSHA	OSHA PEL (TWA) (ppm)	100 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	150 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (ppm)	50 ppm
USA IDLH	US IDLH (ppm)	1400 ppm (10% LEL)
Alberta	OEL TWA (mg/m ³)	60 mg/m ³
Alberta	OEL TWA (ppm)	20 ppm
British Columbia	OEL Ceiling (ppm)	30 ppm
British Columbia	OEL TWA (ppm)	15 ppm
Manitoba	OEL TWA (ppm)	20 ppm
New Brunswick	OEL Ceiling (mg/m ³)	152 mg/m ³
New Brunswick	OEL Ceiling (ppm)	50 ppm
Newfoundland & Labrador	OEL TWA (ppm)	20 ppm
Nova Scotia	OEL TWA (ppm)	20 ppm
Nunavut	OEL STEL (ppm)	30 ppm
Nunavut	OEL TWA (ppm)	20 ppm
Northwest Territories	OEL STEL (ppm)	30 ppm
Northwest Territories	OEL TWA (ppm)	20 ppm
Ontario	OEL TWA (ppm)	20 ppm
Prince Edward Island	OEL TWA (ppm)	20 ppm
Québec	PLAFOND (mg/m ³)	152 mg/m ³
Québec	PLAFOND (ppm)	50 ppm
Saskatchewan	OEL STEL (ppm)	30 ppm
Saskatchewan	OEL TWA (ppm)	20 ppm
Yukon	OEL Ceiling (mg/m ³)	150 mg/m ³
Yukon	OEL Ceiling (ppm)	50 ppm
Benzyl alcohol (100-51-6)		
USA AIHA	WEEL TWA (ppm)	10 ppm

8.2. Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear protective gloves.

Eye and Face Protection: Chemical safety goggles.

Skin and Body Protection: Wear suitable protective clothing.

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Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, yellowish liquid
Odor	: Slight characteristic smell
Odor Threshold	: Not available
pH	: 9.5 – 10.5 (undiluted)
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Water: Miscible
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available

SECTION 10: STABILITY AND REACTIVITY

- 10.1. **Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. **Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. **Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials.
- 10.5. **Incompatible Materials:** Strong acids, strong bases, strong oxidizers. Halogens.
- 10.6. **Hazardous Decomposition Products:** When heated to decomposition it emits acrid smoke, fumes. Carbon oxides (CO, CO₂). Nitrogen oxides. Hydrogen Fluoride (HF). Hydrogen cyanide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified

pH: 10 (8 - 11.1) (undiluted)

Eye Damage/Irritation: Causes serious eye damage.

pH: 10 (8 - 11.1) (undiluted)

Respiratory or Skin Sensitization: May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

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Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction. Aspiration of this material may cause chemical pneumonia.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: Repeated exposure may damage the retina.

11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

1-Cyclopropyl-7-(4-ethyl-1-piperazinyl)-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid (93106-60-6)	
LD50 Oral Rat	5000 mg/kg
1-Butanol (71-36-3)	
LD50 Oral Rat	700 mg/kg
LD50 Dermal Rabbit	3402 mg/kg
LC50 Inhalation Rat	> 8000 ppm/4h
Benzyl alcohol (100-51-6)	
LD50 Oral Rat	1230 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LD50 Intravenous Rat	53 mg/kg
LC50 Inhalation Rat	> 4.178 mg/l/4h
ATE US/CA (dust, mist)	1.50 mg/l/4h

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General: Not classified.

1-Butanol (71-36-3)	
LC50 Fish 1	1730 - 1910 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	1983 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2	1740 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 2	1897 - 2072 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
NOEC Chronic Crustacea	4.1 mg/l
Benzyl alcohol (100-51-6)	
LC50 Fish 1	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	23 mg/l (Exposure time: 48 h - Species: water flea)
LC50 Fish 2	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
ErC50 (algae)	770 mg/l

12.2. Persistence and Degradability

Enromed	
Persistence and Degradability	Not established.

12.3. Bioaccumulative Potential

Enromed	
Bioaccumulative Potential	Not established.
1-Butanol (71-36-3)	
BCF Fish 1	0.64
Log Pow	0.785 (at 25 °C)
Benzyl alcohol (100-51-6)	

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Log Pow	1.1
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12.4. Mobility in Soil Not available

12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

Ecology - Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.(Contains 1-butanol, benzyl alcohol)

Hazard Class : 9

Identification Number : UN3082

Label Codes : 9

Packing Group : III

ERG Number : 171



14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

14.4. In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

Enromed	
SARA Section 311/312 Hazard Classes	Health hazard - Respiratory or skin sensitization Health hazard - Serious eye damage or eye irritation
L-Arginine (74-79-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
1-Butanol (71-36-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1 %
Benzyl alcohol (100-51-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. US State Regulations

1-Butanol (71-36-3)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List
Benzyl alcohol (100-51-6)
U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List

15.3. Canadian Regulations

L-Arginine (74-79-3)
Listed on the Canadian DSL (Domestic Substances List)

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1-Butanol (71-36-3)

Listed on the Canadian DSL (Domestic Substances List)

Benzyl alcohol (100-51-6)

Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Date of Preparation or Latest Revision : 05/06/2019

Revision

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

GHS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Comb. Dust	Combustible Dust
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 3	Flammable liquids Category 3
Flam. Liq. 4	Flammable liquids Category 4
Resp. Sens. 1	Respiratory sensitization, Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapour
H227	Combustible liquid
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause an allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H401	Toxic to aquatic life

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (Can, US)