

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**COMMON NAME:** LINCOMIX® Injectable  
**SYNONYMS:** LINCOMIX 100, LINCOMIX 25, LINCOMIX 300, 473750 – EDP Number, 473878 – EDP Number, 473990 – EDP Number  
**MOLECULAR FORMULA:** Mixture  
**USE:** Veterinary product for the treatment of infectious arthritis and mycoplasmal pneumonia in swine. Not for human use.  
**MANUFACTURER/SUPPLIER:**  
PHARMACIA & UPJOHN CO., A SUBSIDIARY OF PHARMACIA CORP.  
7171 PORTAGE RD  
KALAMAZOO, MI 49001-0199  
**TELEPHONE NUMBERS:**  
(616) 833-5122 - (24 Hours)  
(616) 833-7555 - (8:00 AM - 4:30 PM, EST)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### INGREDIENT 1

**COMMON NAME:** Water.  
**% BY WEIGHT:** 70% to 97.5%  
**CAS NUMBER:** 7732-18-5  
**EXPOSURE LIMIT(S):** Not established.

### INGREDIENT 2

**COMMON NAME:** Lincomycin Hydrochloride.  
**% BY WEIGHT:** 2.5% to 30%  
**CAS NUMBER:** 859-18-7  
**EXPOSURE LIMIT(S):** PHARMACIA & UPJOHN  
**EXPOSURE LIMIT-TWA:** 0.1 mg/m<sup>3</sup>

**EXPOSURE LIMIT(S) FOR THE MATERIAL:** Not established.

## 3. HAZARDS IDENTIFICATION

**PRIMARY ROUTE(S) OF EXPOSURE:** Skin contact, eye contact, ingestion, and inhalation.

**EFFECTS OF OVEREXPOSURE:** Not acutely toxic. Irritation to the eyes, skin and respiratory passages may occur. Repeated overexposure may cause abdominal cramps, diarrhea and colitis. This may begin several weeks after exposure has ceased. May cause nausea and vomiting.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Hypersensitivity to lincomycin, clindamycin or related family of antibiotics.

## 4. FIRST AID MEASURES

**EYES:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**SKIN:** Wash with soap and water. Remove contaminated clothing.

**INHALATION:** Move to fresh air.

**INGESTION:** Contact a physician or poison control center.

**NOTES TO PHYSICIAN:** Lincomycin has been shown to have neuromuscular-blocking properties that may enhance the action of other neuromuscular-blocking agents. If an allergic reaction should occur, the usual agents (epinephrine, corticosteroids, antihistamines) should be used as indicated.

## 5. FIRE FIGHTING MEASURES

**FLASH POINT:** Nonflammable.

**LOWER EXPLOSION LIMIT (LEL):** Not applicable.

**UPPER EXPLOSION LIMIT (UEL):** Not applicable.

**EXTINGUISHING MEDIA:** Water, carbon dioxide or dry chemical.

**FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus and full-body protective equipment.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** None known.

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide. Carbon dioxide. Nitrogen oxides. Sulfur oxides. Hydrochloric acid.

## 6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Provide ventilation and respiratory, skin and eye protection to prevent over-exposure. Keep out of drains; prevent entry to surface water, groundwater and soil. Vacuum or scoop spilled material and place in container.

## 7. HANDLING AND STORAGE

**PRECAUTIONS FOR HANDLING AND STORAGE:** Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Launder contaminated clothing before reuse. Store in a cool dry place. Protect from light. Keep out of reach of children.

**8. EXPOSURE CONTROLS/  
PERSONAL PROTECTION**

**RESPIRATORY PROTECTION:** Not required.  
**VENTILATION:** Local exhaust.  
**PROTECTIVE GLOVES:** Not required.  
**EYE PROTECTION:** Not required.  
**OTHER PROTECTIVE EQUIPMENT:** Not required.

**9. PHYSICAL AND CHEMICAL  
PROPERTIES**

**APPEARANCE/PHYSICAL STATE:** Liquid.  
**MOLECULAR WEIGHT:** Mixture.  
**SOLUBILITY IN WATER:** Soluble.

**10. STABILITY AND REACTIVITY**

**STABILITY:** Stable.  
**PHYSICAL CONDITIONS TO AVOID:** None.  
**INCOMPATIBILITY WITH OTHER MATERIALS:**  
 None.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** None.  
**HAZARDOUS POLYMERIZATION:** Does not occur.

**11. TOXICOLOGICAL INFORMATION**

**ACUTE STUDIES:** The following information is for lincomycin hydrochloride:  
**SENSITIZATION:** Hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these to people known to be sensitive to penicillin. Rare instances of erythema multiforme, some resembling Stevens-Johnson syndrome, have been associated with lincomycin hydrochloride.  
**INTRAVENOUS LD50 (RAT):** 342 mg/kg  
**INTRAVENOUS LD50 (MOUSE):** 214 mg/kg  
**ORAL LD50 (RAT):** >4,000 mg/kg  
**INTRAPERITONEAL LD50 (MOUSE):** 1,000 mg/kg  
**SUBCUTANEOUS LD50 (RAT):** 9,778 mg/kg  
**OTHER STUDIES:**  
**GENOTOXICITY:** Negative.  
**TERATOGENICITY:** No teratogenic effects seen in rats or dogs.  
**CARCINOGENICITY:** Ingredient(s) are not listed as carcinogenic by IARC, NTP, or OSHA.

**12. ECOLOGICAL INFORMATION**

**ENVIRONMENTAL FATE:**  
**MOBILITY:** Lincomycin hydrochloride melts with decomposition at 148°C. It has no measurable vapor

pressure; therefore, it is not expected to enter the air. Lincomycin hydrochloride is very soluble in water (500 to 1,000 mg/mL) and undergoes hydrolysis at both acid and basic pHs at elevated temperatures. Lincomycin can be sorbed to soil, but it is readily leached away from soils. Lincomycin is expected to be relatively mobile and migrate toward the aquatic compartment.

**PERSISTENCE/DEGRADABILITY:** Lincomycin hydrochloride can undergo hydrolysis at both acid and basic pHs at elevated temperatures; however, in the pH range 3 to 6 at room temperature, degradation is small. Lincomycin bioactivity is readily degraded by mixtures of urine, feces and soil. The half-life of degradation was about 20 days.

**BIOACCUMULATIVE POTENTIAL:** Lincomycin has a low octanol-water partition coefficient at all pHs. The octanol-water partition at pH 7 is 2.550. Calculated flowing and static bioaccumulation factors are 2.21 and 9.96, respectively. Lincomycin will be expected to migrate to the aqueous environment, but it should not bioaccumulate in aquatic organisms.

**ABIOTIC POTENTIAL:** Lincomycin will have some initial inhibitory effects on the most sensitive microorganisms until it is degraded. Small amounts sent to sanitary sewage will not adversely affect the abiotic flora of sewage treatment facilities.

**ECOTOXICITY:** No adverse effect 96-hour rainbow trout 980 mg/L; no adverse effect 96-hour bluegill 980 mg/L; no adverse effect 48-hour daphnia magna >900 mg/L.

**13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD:** Dispose of by incineration in accordance with applicable international, national, state, and/or local waste disposal regulations.

**14. SHIPPING REGULATIONS**

Not regulated for transportation by the United States Department of Transportation (DOT), International Maritime Organization (IMO), or International Air Transport Association (IATA). May be subject to state and/or local transportation requirements.

**15. OTHER INFORMATION**

**REVIEWED BY:** Environment & Safety.  
**DISCLAIMER:** The information contained in the MSDS is believed to be correct as of its date of issuance. BY MAKING THE MSDS AVAILABLE, PHARMACIA & UPJOHN CO. DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTY (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) REGARDING THE MSDS, ITS ACCURACY OR THE PRODUCT TO WHICH IT RELATES. Anyone using this information

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## **16. LABELING**

This drug is subject to FDA labeling requirements; therefore, it is exempt from the labeling requirements of the OSHA Hazard Communication Standard.

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NDC 0009-3256-01

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