BOVATEC® 91 (US)

Page: 1 Approved: 02/20/06

Alpharma Inc. Chemtrec 24 Hour Emergency Telephone Numbers:

One Executive Drive North America: 1-800-424-9300 Fort Lee, NJ 07024 International: 1-703-527-3887

Phone: 201-947-7774 Fax: 201-947-3879

MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name BOVATEC® 91

Product Code...... 710121

TSCA Status FDA Exemption – not on inventory

Therapeutic Category: Animal antibiotic

SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Concentration %
Corn Cobs		73 – 82
Soybean Oil	8016-70-4	1
Lecithin	8002-43-5	1
Lasalocid Sodium	25999-20-6	19 –25

SECTION 3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW

Physical State Powder
Color Light brown
Odor Odorless

Harmful if swallowed.

Causes eye burns.

Material is combustible.

Possible dust explosion hazard based on information on related materials.

In the event of a spill, do not flush large quantities of material into sewers or waterways.

POTENTIAL HEALTH EFFECTS

Relevant Routes of

Exposure: Ingestion, eye contact, inhalation Target Organs Ocular system, respiratory system

Acute Effects General: This material has not been tested as a whole; therefore, information described

below is based on one or more of its ingredients. May cause mucous membrane irritation (inflammation). May cause respiratory effects such as difficulty in breathing, coughing, wheezing, irritation (inflammation) and respiratory arrest.

Harmful if swallowed.

Page: Approved: 02/20/06

SECTION 3. HAZARDOUS IDENTIFICATION (Continued . . .)

Eye Causes eye burns

Chronic Effects...... No adverse effects known

Carcinogenicity Not listed by NTP, IARC, or OSHA.

Conditions Aggravated: Hypersensitivity to penicillin and other antibiotics. Respiratory system conditions.

SECTION 4. FIRST AID MEASURES

Skin Contact Wash area with soap and plenty of water.

Eye Contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical

attention.

Ingestion Get medical attention immediately. Do not induce vomiting unless directed by

medical personnel. Never give anything by mouth to an unconscious person.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point Not applicable

Extinguishing Media: Water, carbon dioxide, dry chemical, foam

Unusual Fire and

Explosion Hazards: Material is combustible. Possible dust explosion hazard based on information on

related materials. Toxic emissions may be given off in a fire. See

"Decomposition Products" in "Section 10. Stability and Reactivity".

Fire Fighting

apparatus and full protective turn out gear. Use caution in approaching fire. Remove containers of this material if it can be done safely. Use water to keep

fire exposed containers cool.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Spill Clean Up Procedures..: Eliminate possible ignition sources. Use proper personal protective equipment

and clothing specified in "Section 8. Exposure Controls/Personal Protection". In the event of a spill, do not flush large quantities of material into sewers or waterways. Utilize dry means of collection or scoop/shovel spilled material into a suitable labeled open head drum. Secure the drum cover and move the container to a safe holding area. Clean spill area thoroughly. Check area for

residual material and repeat clean up if detected.

Treatment and Disposal ...: Dispose of in accordance with recommendations in "Section 13. Disposal

Considerations".

Page: Approved: 02/20/06

SECTION 6. ACCIDENTAL RELEASE MEASURES (Continued . . .)

Reporting Requirements..: The United States Environmental Protection Agency (USEPA) has not established

a Reportable Quantity (RQ) for releases of this material. In New Jersey, report all releases which are likely to endanger the public health, harm the environment or cause a complaint to the NJDEPE Hotline (1-609-292-5560) and to local officials. State and local regulations vary and may impose additional reporting requirements.

SECTION 7. HANDLING AND STORAGE

Storage Temperature

(min/max)..... < 25 degrees C Shelf Life 24 months Special Sensitivity...... Heat. Light.

Handling & Storage

Ground and bond all transfer equipment.

Milling/mixing/drying should be performed in devices equipped with explosion

relief or suppression systems or under inert conditions.

Use with adequate ventilation. Avoid contact with eves. Avoid breathing dust.

When handling, use proper personal protective equipment specified in Section 8.

Wash thoroughly after handling.

Keep container tightly closed when not in use.

Store out of direct sunlight in a well ventilated area at room temperature.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Ventilation Local ventilation is required when using this material.

PERSONAL PROTECTION

Respirator Type(s): Half face, negative pressure air purifying, toxic dust/mist/fume high efficiency

Conditions for Use: Respiratory protection is required whenever air contamination (dust, mist, fume

or vapor) is generated by the process. OSHA considers effective engineering controls to be the primary means to control worker exposure. Respiratory protection should not substitute for feasible engineering controls. Whenever respiratory protection is used, a complete respirator program should be

developed in accordance with OSHA Subpart I (29CFR1910.134) requirements.

Glove Materials Any plastic or rubber glove.

Conditions for Use: Gloves are recommended if there is a potential for skin contact.

protective clothing manufacturer, supplier, and/or industrial hygienist.

Eye Protection Safety goggles recommended, safety glasses required.

Page: Approved: 02/20/06

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued . . .)

OTHER CONTROL MEASURES

Additional

Protective Measures......: Prevent the accumulation of dust in the work area by thorough periodic cleaning

of the area. Provide safety showers and eyewash stations in the work area. Work clothing should be removed in a change room on site and laundered

professionally.

EXPOSURE LIMITS

Soybean Oil

OSHA PEL...... 5.00 mg/m3 8 hour time weighted average, respirable fraction

OSHA PEL...... 15.0 mg/m3 8 hour time weighted average ACGIH TLV: 10.0 mg/m3 8 hour time weighted average

Lasalocid Sodium

IOEL...... 0.100 mg/m3 8 hour time weighted average

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State Powder Color: Light Brown Odor Odorless Pure/Mixture Mixture H₂O Solubility Insoluble

SECTION 10. STABILITY AND REACTIVITY

Stability Normally stable even under fire exposure conditions and not water reactive

Conditions to Avoid: Elevated temperatures

Dust accumulation Airborne dust Sources of ignition

Incompatibility –

Materials to Avoid Acids, bases, iron salts, oxidizing agents

Decomposition

Products...... Carbon dioxide, carbon monoxide

Polymerization: No

Conditions of

Polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Lasalocid Sodium:

Acute Oral, Single Dose, Rat: 122 mg/kg

Summary: Acute oral LD50 (rat) is 122 mg/kg/body weight at 5 days which classifies this material as toxic orally under the study conditions utilized.

Acute Dermal, Single Dose, Rabbit: 14000 mg/kg

Summary: Acute dermal LD50 (rabbit) is approximately 14,000 mg/kg/body weight at 14 days which

classifies this material as practically non-toxic dermally under the study conditions utilized.

BOVATEC® 91 (US) Page: 5 Approved: 02/20/06

SECTION 11. TOXICOLOGICAL INFORMATION (Continued . . .)

Irritation Eye, Single Dose, Rabbit

Summary: In a primary eye irritation study in rabbits, instillation of 0.1 g of this material produced opacity, corneal ulcerating iritis, conjuctival redness, chemosis, necrosis, ulcerations and pannus, whether the eyes were washed at 5 minutes or 24 hours. Some of these symptoms persisted up to 21 days.

Irritation Skin, Single Dose, Rabbit

Summary: In a primary skin irritation study in rabbits, no evidence of apparent skin irritation was observed in 48 hours with an application of 0.5 g of moist powder to intact and abraded skin under the study conditions utilized.

Carcinogenicity Oral, Rat

Summary: No evidence of significant compound-related effects or carcinogenicity was observed in rats when this material was administered as a dietary admix at doses of 10, 35, and 120 ppm for 2-1/2 years under the study conditions utilized.

Reproductive Oral, Rat

Summary: No evidence of any adverse effects on fertility and reproductive performance were observed in rats administered this material as a dietary admix at doses of 1, 2, 3, and 10 mg/kg/day to male rats 21 days prior to mating and to female rats 21 days prior to mating until weaning of the pups under the study conditions utilized.

Teratogenicity Oral, Rat

Summary: A three generation reproduction and teratology study in rats administered this material as a dietary admix at doses of 10, 35, and 120 ppm produced no evidence of teratogenicity. Doses up to 35 ppm produced no adverse effects on general reproductive parameters or teratogenic effects. At high doses, reductions in pregnancy and fertility rates were observed.

Mutagenicity

Summary: No evidence of mutagenicity was observed in the Ames test, yeast cell assay in S. Cerevisae D7 strain, HGPRT assay, UDS assay and chromosomal analysis in human peripheral blood lymphocytes assay, with or without metabolic activation under the study conditions utilized.

Sensitization Skin, Single Dose, Guinea Pig

Summary: No evidence of sensitization was observed in guinea pigs in two separate guinea pig maximization tests.

SECTION 12. ECOLOGICAL INFORMATION

Lasalocid Sodium:

Concentration lethal to 50% of the organisms, Algae: 8.00 mg/L

Summary: The exposure period is 96 hours.

Concentration lethal to 50% of the organisms, 48 hour, Daphnia: 2.40 mg/L

No Observable Effect Level, Trout

Summary: This material is highly toxic for fish: NEC (no effect concentration) = 2 mg/L,

LC100 = 5 mg/L (rainbow trout).

No Observable Effect Level, Microbes (nonspecific): >=100 mg/L Summary: This material is slightly toxic for microorganisms.

Page: 6
Approved: 02/20/06

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal

Recommendations: This material is suitable for incineration. These recommendations are based on

the product as shipped. Use, processing, alteration or contamination may affect these disposal recommendations. State, local or site restrictions affecting the

available proper disposal options may vary.

RCRA Waste # Not regulated under RCRA

Empty Containers Empty containers must be triple rinsed prior to disposal, recycling, or reuse.

SECTION 14. TRANSPORTATION INFORMATION

Enforcement Agency: US Department of Transportation

Country/Community: USA

Proper Ship. Name: Non-regulated

Enforcement Agency: International Air Transport Association

Country/Community: International Proper Ship. Name: Non-regulated

Enforcement Agency: International Maritime Organization

Transportation Mode: Ocean
Country/Community.....: International
Proper Ship. Name Non-regulated

SECTION 15. REGULATORY INFORMATION

Law/Regulation: Hazardous Chemical Reporting: Community Right -To-Know 40CFR370

Common Name: SARA Title III Section 312 - Hazardous Chemical Inventory

Enforcement Agency: Environment al Protection Agency (EPA)

Governing Authority: USA Criteria Met Acute, Fire

Law/Regulation Safe Drinking Water and Toxic Enforcement Act of 1986 Proposition 65

Common Name Prop 65

Enforcement Agency: California Environmental Protection Agency

Governing Authority: California, USA

SECTION 16. OTHER INFORMATION

Additional Information....: NFPA Rating: These ratings are based on NFPA Code 704 and are intended for

use by emergency personnel to determine the immediate hazards of a material.

......Health 2
.....Fire 2
.....Reactivity 0

SECTION 16. OTHER INFORMATION (Continued . . .)

The information presented on this MSDS is, to the best of our knowledge, accurate and reliable. It is provided in good faith without warranty or acceptance of any liablity on the part of Alpharma. It is the responsibility of the user to evaluate the relevance and completeness of this information for their application and to determine the safety, suitability and status under applicable regulations relating to this product or byproducts arising out of their process.