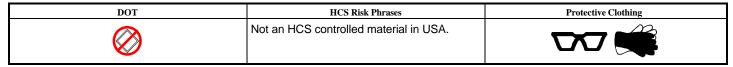
Material Safety Data Sheet



Common/Trade name	DENAGARD® 10 (TIAMULIN) MEDICATED PREMIX NADA 139-472	CI#	Not available.
Synonyms	Not available.	DSL	ISCA inventory: No products were found.
Chemical Name	Not applicable.	CAS#	Not applicable.
Chemical Formula	Not available.	Code	MSDS ID #: P634021
Chemical Family	Semisynthetic antibiotic; diterpenoid chemical class	Molecular Weight	Not applicable.
Supplier	BOEHRINGER INGELHEIM VETMEDICA, INC. 2621 NORTH BELT HWY ST. JOSEPH MO 64506-2002	Manufacturer	BOEHRINGER INGELHEIM VETMEDICA, INC. 2621 NORTH BELT HWY ST. JOSEPH MO 64506-2002

Section 2. Hazardous Ingredients				
Name	CAS#	% by Weight	Exposure Limits	$\mathrm{LC}_{50}/\mathrm{LD}_{50}$
1) TIAMULIN HYDROGEN FUMARATE 14-desoxy-14-[(2-diethylaminoethyl) mercaptoacetoxy] mutilin hydrogen fumarate C28H47NO4S,C4H4O4		2.2% (10 g/lb) in roughage product carrier		LD50: (Rats) 2230 mg/kg (Mouse) 710 mg/kg

Section 3. Physic	cal Data		
Physical State and Appearance	Solid. Finely ground roughage product.	Odor	Not available.
pH (1% soln/water)	Not available.	Taste	Not available.
Odor threshold	Not available.	Color	Not available.
Volatility	Not available.		
Melting/Sublimation point	Not available.		
Boiling/Condensation point	Not available.		
Specific gravity	Not available.		
Vapor Density	Not available.		
Vapor pressure	Not available.		
LogKow	Not available.		
Ionicity (surface active agent)	Not available.		
Critical temperature	Not available.		
Instability temperature	Not available.		
Conditions of instability	No additional remark.		
Dispersion properties	Not available.		
Solubility	Active ingredient very soluble.		

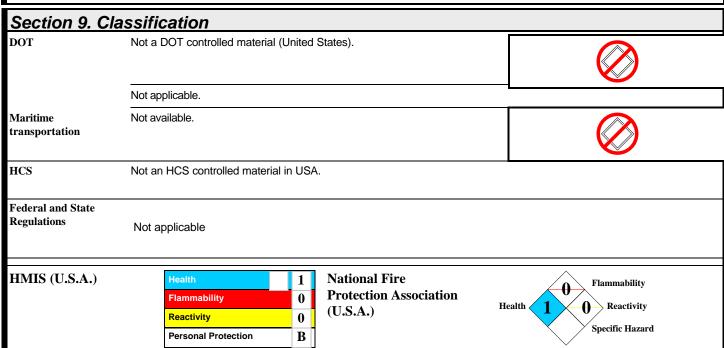
Section 4. First Aid Measures		
Eye contact	Flush eyes with plenty of water. Get medical attention if irritation persists.	
Skin contact	Wash contaminated skin with soap and water. Seek medical attention if irritation persists.	
Slight inhalation	Remove person from contaminated area to fresh air. Apply artificial respiration if needed.	
Slight ingestion	Not for human use. If swallowed seek medical assistance.	

Section 5. Fire and Explosion Data		
The product is:	Not available.	
Auto-ignition temperature	Not available.	
Fire degradation products	Not available.	
Flash points	Not available.	
Flammable limits	Not available.	
Fire extinguishing procedures	SMALL FIRE: Use DRY chemicals, CO2, water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. SPECIAL FIRE FIGHTING PROCEDURES: Recommend pressure-demand, self-contained breathing apparatus (SCBA). Wear full protective equipment and isolate area.	
Flammability	No specific information is available in our database regarding the flammability of this product in presence of various materials.	
Risks of explosion	Air-borne particles may present dust explosion hazard.	

Section 6. Reactivity Data		
Stability	The product is stable.	
Hazardous Decomposition Products	Not hazardous. In case of fire, avoid inhalation of fumes.	
Degradability	Not available.	
Products of degradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. Not available.	
Corrosivity	No specific information is available in our database regarding the corrosivity of this product in presence of various materials.	
Reactivity	None for handling. Monensin, salenomycin and narasin are incompatible with tiamulin in vivo. Avoid cross contamination of feeds with these drugs. Avoid moisture and high humidity; avoid excessive temperature storage; prevent other than label uses.	

Section 7. Toxicological Properties		
Routes of entry	Ingestion: Inhalation:	
TLV	Not available	
Toxicity to animals	Not available.	
Chronic effects on humans	CARCINOGENIC EFFECTS: Not carcinogenic. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition. NO carcinogenic effect.	
Acute effects on humans	s Product dust may cause sneezing and/or irritation of mucus membranes; skin irritation and/or antibiotic sensitivities in some individuals.	

Section 8. Pr	eventive Measures
Waste information	Not a hazardous toxic waste. Dispose of waste and containers in accordance with local, state and federal regulations. Contact manufacturer for disposal of out-dated material.
Waste stream	Not available.
Storage	Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.
Precautions	Read complete package label before use. Use only as directed. Follow GMP procedures.
Small spill and leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large spill and leak	Combustible material. Keep away from heat. Keep away from sources of ignition. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
Protective Clothing	Be sure to use a MSHA/NIOSH approved respirator or equivalent if dust occurs in use. Safety glasses and gloves.



DENAGARD® 10 (TIAMULIN) MEDICATED PREMIX NADA 139-472

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Section 10. Protective Measures

Protective Clothing Safety glasses and gloves. Be sure to use a NIOSH approved respirator or

equivalent if dust occurs.



Engineering controls

No special ventilation requirements.

Section 11. Other Information

References Not available.

Validated by Company on 08/05/2002.

Verified by Company.

Printed 09/04/2002.

CALL 1(800) 821-7467

Emergency Medical: (816) 232-2525 or (800)530-5432

Chemtrec: (800)424-9300

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