




TOLMAR Inc.

# Material Safety Data Sheet

## Emergency Information Summary

NFPA	HMIS	Personal Protective Equipment	Emergency Contact						
 <i>Syringe A</i>	<table><tr><td>Health Hazard</td><td>2</td></tr><tr><td>Fire Hazard</td><td>2</td></tr><tr><td>Reactivity</td><td>0</td></tr></table> <i>Syringe A</i>	Health Hazard	2	Fire Hazard	2	Reactivity	0	Appropriate Gowning Impermeable Gloves Safety Glasses  <i>Syringes A and B</i>	970.212.4500
Health Hazard	2								
Fire Hazard	2								
Reactivity	0								

## Section 1. Chemical Product and Company Information

<b>Domestic Product Name:</b>	Atridox®
<b>Export Product Name:</b>	Atridox®
<b>Manufacturer:</b>	TOLMAR, Inc. 701 Centre Avenue Fort Collins, CO 80526 Phone: 970.212.4500

**NOTE: MATERIALS ARE SUPPLIED IN PAIRS OF SEPARATE SYRINGES TO BE MIXED BY THE USER**

## Section 2a. Composition and Information for Product Ingredients – Syringe A

Chemical Name	CAS#	Synonyms	Molecular Weight	Chemical Formula	% W/W
2-Pyrrolidinone, 1-Methyl	872-50-4	n-Methylpyrrolidone, NMP	99.0	C <sub>5</sub> H <sub>9</sub> NO	>1%
Polylactic Acid	34346-01-5	Polylactide	≈ 40	(C <sub>3</sub> H <sub>4</sub> O <sub>2</sub> ) <sub>x</sub>	>1%

## Section 2b. Composition and Information for Product Ingredients – Syringe B

Chemical Name	CAS#	Synonyms	Molecular Weight	Chemical Formula	% W/W
Doxycycline Hyclate	2439-14-5	Doxycycline hydrochloride hemiethanolate hemihydrate	1024.3	(C <sub>22</sub> H <sub>24</sub> N <sub>2</sub> O <sub>8</sub> •HCl) <sub>2</sub> •C <sub>2</sub> H <sub>6</sub> O•H <sub>2</sub> O	100 %

## Section 3a. Exposure and Regulatory Information for Product Ingredients – Syringe A

Chemical Name	OSHA PEL	TLV/TWA TLV/STEL	Other Limits	Regulatory Information
2-Pyrrolidinone, 1-Methyl	None found	No TLV/TWA est. No TLV/STEL est.	UK – 25 ppm TWA 100 ppm – via inhalation	EPCRA SARA Sec 313 - Subject to reporting under in quantities greater than 10,000 lbs.; CA Prop 65 - Reproductive hazard; TSCA inventory list; Canada DSL inventory list; Japan inventory list ENCS, Australia inventory list; listed on EU EINECS and ELINCS lists.
Polylactic Acid	None found	None found	None found	FDA Pregnancy Category D; CA Prop 65 Code D

<i>Section 3b. Exposure and Regulatory Information for Product Ingredients – Syringe B</i>				
<b>Chemical Name</b>	<b>OSHA PEL</b>	<b>TLV/TWA TLV/STEL</b>	<b>Other Limits</b>	<b>Regulatory Information</b>
Doxycycline Hyclate	None found	None found	None found	None found

<i>Section 4a. Health Hazard Information for Product – Syringe A</i>		
<b>Chemical Name</b>	<b>Toxicity Category</b>	<b>Details</b>
2-Pyrrolidinone, 1-Methyl	Acute Oral Toxicity	Rat LD <sub>50</sub> – 4,200 mg/kg
	Acute Dermal Toxicity	Rabbit LD <sub>50</sub> – 8,000 mg/kg
	Acute Inhalation Toxicity	Rat LD <sub>50</sub> - > 450 ppm
	Skin Irritation	Prolonged contact may induce defatting of skin that may result in redness and/or cracking. Mild irritation in the rabbit; however, human experience has demonstrated severe dermatitis, e.g. blisters, cracking, edema and redness upon prolonged or repeated contact.
	Eye Irritation	Moderate Eye Irritant
	Sensitizer	Non-sensitizing to guinea pigs (1% v/v solution), non-sensitizing to humans (human RIPT-15 applications). Prolonged, repeated contact found material to be a possible fatiguing agent but not a sensitizer.
	Other Acute Toxicity	No information found
	Neurobehavioral	Rat; 90-day; oral: 169-217 (3,000 ppm), 433-565 (7,500 ppm) and 1,057 –1,344 (18,000 ppm) mg/kg/day – No Observed Adverse Effect Level (NOAEL) 1,344 (18,000 ppm) mg/kg/day in females; 169 (3,000 ppm) mg/kg/day in males. The mid-high dose males had increased low arousal, foot splay, palpebral closure.
	Subchronic Oral Toxicity	Mice; 90-day; oral: 277 (1,000 ppm), 619 (2,500 ppm) and 1,931 (7,500 ppm) mg/kg/day – No Observed Adverse Effect Level (NOAEL) 277 (1,000 ppm) mg/kg/day. The high-dose animals had an increase in absolute and relative liver weights and centrilobular hepatocellular hypertrophy and the mid-dose males had increased absolute and relative liver weights.
	Subchronic Inhalation Toxicity	<p>Rats; 90-day; oral: 69-217 (3,000 ppm), 433, 565 (7,500 ppm) and 1,57-1,344 (18,000 ppm) mg/kg/day – No Observed Adverse Effect Level (NOAEL) 169 – 217 (3,000 ppm) mg/kg/day. The mid and high dose animals had decreased body weights and body weight gains.</p> <p>NMP inhalation studies: Rats, guinea pigs, rabbits, cats – no gross or histopathological abnormalities when exposed to 50 ppm for 8 hours/day for 20 days. Exposures as high as 370 ppm for 6 hours/day for 10 days similarly caused no effect in rats.</p> <p>4-week, rat studies: Aerosol-vapor mixture of NMP at 0, 0.1 (25 ppm), 0.5 (123 ppm) and 1.0 (247 ppm) mg/L for 6 hours/day, 5 days/week showed no effects at 0.1 or 0.5 mg/L. Hemopoietic (blood system) effects were observed at 1.0 mg/L</p>

**Section 4a con't. Health Hazard Information for Product – Syringe A**

<b>Chemical Name</b>	<b>Toxicity Category</b>	<b>Details</b>
Doxycycline Hyclate	Subchronic Dermal Toxicity	Mildly irritating to rabbit skin (50% solution of NMP), 20-day dermal; rabbit; 0.4, 0.8 and 1.6 ml/kg/day on abraded and intact skin showed mild local irritation, no systemic effects. Twenty-five (25) percent of the animals died at 1.6 ml/kg/day.
	Eye Irritation	Moderately Irritating to rabbit eye at 100%
	Aquatic Toxicity	Bluegill ( <i>Lepomis macrochirus</i> ) LC <sub>50</sub> (at 22°C) – 832 mg/L; Fathead Minnow ( <i>Pimephales promelas</i> ) LC <sub>50</sub> (at 22°C) – 1072 mg/L; Trout ( <i>Salmo gairdneri</i> ) LC <sub>50</sub> (at 12°C) – 3048 mg/L
	Tumorigenicity	2-year; rat; vapor of NMP at 0, 0.04 (10 ppm) and 0.4 (99 ppm) mg/L for 6 hrs/day, 5 days/week; no life-shortening toxic or carcinogenic effects observed. Rat 2-year; oral: 66.4-87.8 (1,600 ppm), 207-28 (5,000 ppm), and 678-939 (15,000 ppm) mg/kg/day-No Observed Carcinogenic Effects Level 678-939 (15,000 ppm) mg/kg/day (M&F); No Observed Adverse Effects Level (NOAEL) 207-283 (5,000 ppm) mg/kg/day (M&F). The high-dose males had a statistically significant increase in severe chronic progressive nephropathy.
		Mice; 18-moth oral: 89-115 (600 ppm), 173-221 (1,200 ppm), and 1,089-1,399 (7,200 ppm) mg/kg/day-No Observed Carcinogenic Effect Level 173-221 (1,200 ppm) mg/kg/day (M&F); No Observed Adverse Effects Level (NOAEL) 89 (600 ppm) mg/kg/day in males and 221 (1,200 ppm) mg/kg/day in females. The high-dose males had increased hepatocellular adenomas and carcinomas and high-dose females had increased relative and absolute liver weights and mid-dose males had increased centrilobular and hepatocellular hypertrophy.
	Mutagenicity	Nonmutagenic - NMP was tested in the Ames assay. CHO/HGPRT forward mutation assay, mouse lymphoma assay, rat primary hepatocyte, unscheduled DNA synthesis assay, <i>in vivo</i> dominant lethal test and mouse micronucleus test, <i>in vivo</i> Chinese hamster inhalation test. In each case, NMP was found to be nonmutagenic.
	Reproductive Toxicity	NMP: Rat; dermal; developmental toxicity; 75, 237 and 750 mg/kg. Maternal and developmental NOAEL (No Observed Adverse Effect Level): 237 mg/kg – rat; inhalation developmental toxicity 0.1 (25 ppm) and 0.36 (89 ppm) mg/L; Maternal and developmental NOAEL: 0.36 (89 PPM) mg/L.
		Rabbit; oral; developmental toxicity; 55, 175 and 540 mg/kg/day; maternal NOAEL: 55 mg/kg/day; developmental NOAEL: 175 mg/kg/day.
		Rat; oral; multi-generation; 50, 160 and 500 mg/kg/day; parental, reproductive and developmental NOAEL: 160 mg/kg/day.
Polylactic Acid	General Toxicity	No known toxicity associated with this product. May cause mild eye or skin irritation if reacted with water.

**Section 4b. Health Hazard Information for Product – Syringe B**

<b>Chemical Name</b>	<b>Toxicity Category</b>	<b>Details</b>
Doxycycline Hyclate	Acute Oral Toxicity	Rat LD <sub>50</sub> – > 2 g/kg; Mouse LD <sub>50</sub> – 1870 mg/kg; Dog LD <sub>50</sub> - >500 mg/kg
	Acute Dermal Toxicity	No information found
	Acute Inhalation Toxicity	No information found
	Skin Irritation	May cause skin irritation, possible allergic reactions
	Eye Irritation	May cause skin irritation, possible allergic reactions
	Gastrointestinal Irritation	May cause skin irritation, possible allergic reactions
	Respiratory Tract Irritation	May cause skin irritation, possible allergic reactions
	Sensitizer	Possible hypersensitization
	Other Acute Toxicity	No information found
	Reproductive Toxicity	The therapeutic use of tetracyclines is not recommended during the last half of pregnancy since they may cause permanent discoloration of the fetus's teeth, incomplete development or lack of enamel, inhibition of skeletal growth in the fetus.
	Hepatotoxicity	Potential liver toxicity.
	Neurobehavioral	No information found
	Tumorigenicity	No information found
	Mutagenicity	No information found

**Section 5a. Potential Health Effects – Syringe A**

<b>Chemical Name</b>	<b>Ingestion</b>	<b>Inhalation</b>	<b>Dermal</b>	<b>Eye</b>	<b>Chronic Exposure</b>	<b>Pre-existing Conditions</b>
2-Pyrrolidinone, 1-Methyl	No information found	Misted or at high conc., may cause pallor, nausea, anesthetic or narcotic effects.	Prolonged or repeated contact causes redness, swelling and cracking.	Primary route of exposure; contact may cause irritation.	Vapors slightly uncomfortable, splashes irritating; will cause painful burning or stinging of eyes and lids, watering of eyes and inflammation of conjunctiva.	No information regarding aggravation
Polylactic Acid	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.	No information regarding aggravation

<i>Section 5b. Potential Health Effects – Syringe B</i>						
<b>Chemical Name</b>	<b>Ingestion</b>	<b>Inhalation</b>	<b>Dermal</b>	<b>Eye</b>	<b>Chronic Exposure</b>	<b>Pre-existing Conditions</b>
Doxycycline Hyclate	Stomach pain, diarrhea, nausea, vomiting	Irritation	Increased skin sensitivity to sunlight, itching of rectal or genital areas	Irritation	Dizziness, unsteadiness, discolored or sore tongue, headache, visual changes	Fetal growth and development can be adversely affected during last half of pregnancy; cross sensitivity of persons sensitive to tetracyclines or tetracycline derivatives.

<i>Section 6a. Signs and Symptoms of Exposure – Syringe A</i>					
<b>Chemical Name</b>	<b>Ingestion</b>	<b>Inhalation</b>	<b>Dermal</b>	<b>Eye</b>	<b>Chronic Exposure</b>
2-Pyrrolidinone, 1-Methyl	No effects of exposure expected.	Pallor, nausea, anesthetic or narcotic effects.	Redness, swelling and cracking.	Painful burning or stinging of eyes and lids, watering of eyes, inflammation of conjunctiva.	No information found
Polylactic Acid	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.	No harmful effects expected. Consult a physician.

<i>Section 6b. Signs and Symptoms of Exposure – Syringe B</i>	
<b>Chemical Name</b>	<b>General Signs and Symptoms</b>
Doxycycline Hyclate	The usual oral human adult dose of Doxycycline Hyclate is 100 mg every 12 hours, taken with a full glass of water. Higher doses have been tolerated. Signs and symptoms of exposure will include dizziness, unsteadiness, stomach pain, diarrhea, nausea or vomiting, increased sensitivity of the skin to sunlight, itching of rectal or genital areas, discolored or sore tongue and rarely, headache and visual changes. Sensitive individuals may exhibit severe allergic responses.

<i>Section 7a. First Aid – Syringe A</i>		
<b>Chemical Name</b>	<b>Exposure Scenario</b>	<b>First Aid Measures</b>
2-Pyrrolidinone, 1-Methyl	Inhalation	General precautionary. Remove from source of exposure. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. If signs of toxicity occur, seek medical attention. No specific treatment is necessary since material is not likely to be hazardous by inhalation.
	Ingestion	General Precautionary. Do not induce vomiting. Slowly dilute with 1 –2 glasses of water or milk. Never give anything by mouth to an unconscious person. Remove from source of exposure. Seek medical attention.
	Skin Contact	Remove from source of exposure. Remove contaminated clothing. Flush with copious amounts of water and wash with soap. If irritation persists or signs of toxicity occur, seek medical attention. Wash clothing before reuse.
	Eye Contact	Remove from source of exposure. Flush with copious amounts of water for at least 15 minutes. If irritation persists or signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care, monitoring hormone/sexual function if necessary.
Polylactic Acid	General Precautions	Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Hot and/or melted polymer can severely burn skin. Handle with care.

<i>Section 7b. First Aid – Syringe B</i>		
<b>Chemical Name</b>	<b>Exposure Scenario</b>	<b>First Aid Measures</b>
Doxycycline Hyclate	Inhalation	Remove to fresh air. May cause irritation to the respiratory tract. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.
	Ingestion	General precautionary measures suggest that vomiting be induced immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Doxycycline is readily absorbed from the gastrointestinal tract. Following ingestion and/or prior to gastric evacuation, immediately administer 4 – 8 oz of milk or water. In most cases gastrointestinal decontamination will not be required, but if necessary, administer charcoal slurry. This is most effective within one hour of ingestion. Antacids may help to manage gastric irritation. Call a physician.
	Skin Contact	Remove from source of exposure. Remove contaminated clothing. Flush with copious amounts of water and wash with soap immediately. If irritation persists or signs of toxicity occur, seek medical attention. Wash clothing before reuse.
	Eye Contact	Remove from source of exposure. Flush with copious amounts of water for at least 15 minutes. If irritation persists or signs of toxicity occur, seek medical attention. No known antidote. Provide symptomatic/supportive care.
	General Precautions	Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. In case of exposure to large areas of skin or prolonged exposure, monitor carefully hypersensitivity symptoms. Overdoses should be treated symptomatically and supportively. Dialysis is not beneficial.
<b><i>Persons developing serious hypersensitivity reactions to doxycycline must receive immediate medical attention!!</i></b>		

<i>Section 8a. Fire Fighting Measures – Syringe A</i>				
Chemical Name	Flash Point (°F)	Extinguishing Media	Unusual Fire/Explosion Hazards	Special Protective Equipment
2-Pyrrolidinone, 1-Methyl	199.00	Water, alcohol foam, dry chemical, carbon dioxide	Combustible liquid. Dangerous fire hazard when exposed to heat or flame. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Vapor-air mixtures are explosive.	Fire fighters should wear full protective clothing, including self-contained breathing apparatus.
Polylactic Acid	Not available	Water, alcohol foam, dry chemical, carbon dioxide	Avoid dispersion of dust in air to reduce dust explosion hazard.	Fire fighters should wear full protective clothing, including self-contained breathing apparatus.

<i>Section 8b. Fire Fighting Measures – Syringe B</i>				
Chemical Name	Flash Point (°F)	Extinguishing Media	Unusual Fire/Explosion Hazards	Special Protective Equipment
Doxycycline Hyclate	Not found	Water, dry chemical, carbon dioxide or foam	This material is assumed to be combustible. Ground mechanical equipment that will be in contact with dry material to dissipate the build-up of static electricity.	Fire fighters should wear full protective clothing, including self-contained breathing apparatus.

<i>Section 9. Accidental Release Measures – Syringe A and B</i>		
Chemical Name	Measure	Details
2-Pyrrolidinone, 1-Methyl	Personal Precautionary Measures	Use appropriate protective equipment. Avoid breathing any dust.
Polylactic Acid		
Doxycycline Hyclate	Cleaning/Absorption Measures	Remove ignition sources. Contain liquid spills with sand or other inert material. Flush area with water. Avoid dispersion of dust. Observe regulations.  Contain dust spills with high efficiency vacuum cleaner. Place in an appropriate and labeled container for disposal.

<i>Section 10a. Handling and Storage – Syringe A</i>		
Chemical Name	Action	Details
2-Pyrrolidinone, 1-Methyl	Handling	Avoid contact with eyes. Wash thoroughly with soap and water after handling.
	Storage	Keep containers tightly closed when not in use. Store in a cool, dry place, out of direct sunlight.
Polylactic Acid	Handling	Avoid contact with eyes. Wash thoroughly with soap and water after handling.
	Storage	Avoid contact with atmosphere. Keep closed until ready for use.

<i>Section 10b. Handling and Storage – Syringe B</i>		
Product	Action	Details
Doxycycline Hyclate	Handling	Avoid dust inhalation. Wash thoroughly after handling.
	Storage	Keep containers tightly closed when not in use. Avoid exposure to light during storage. Store per label instructions. Store in a cold place.

<i>Section 11a. Exposure Controls and Personal Protective Equipment – Syringe A</i>		
Chemical Name	Action	Details
2-Pyrrolidinone, 1-Methyl	Engineering Control	Do not remove contents from syringe, however if spill occurs and contents must be handled outside the syringe do so in a well ventilated area.
	Respiratory Protection	Do not remove contents from syringe, however if spill occurs and contents must be handled outside the syringe do so in a well ventilated area.
	Hand Protection	Do not remove contents from syringe, however if spill occurs and contents must be handled outside the syringe wear impervious gloves of natural latex or neoprene (Natural latex gloves AR-340 & Style # Y-18 from Glover Latex, Inc. – Anaheim, CA; Neoprene gloves “Scorpio #8-352 from Edmont Wilson – Coshocton, OH).
	Eye Protection	Do not remove contents from syringe, however if spill occurs and contents must be handled outside the syringe use chemical goggles; also wear face shield if splashing hazard exists.
Polylactic Acid	Engineering Control	Do not remove contents from syringe, however if spill occurs and contents must be handled outside the syringe do so in a well ventilated area.
	Respiratory Protection	Do not remove contents from syringe, however if spill occurs and contents must be handled outside the syringe use a respirator.
	Hand Protection	Do not remove contents from syringe, however if spill occurs and contents must be handled outside the syringe use rubber gloves.

<i>Section 11b. Exposure Controls and Personal Protective Equipment – Syringe B</i>		
Product	Action	Details
Doxycycline Hyclate	Engineering Control	Handle in a well-ventilated area.
	Respiratory Protection	None Required during normal use. If aerosols or dust are generated, a disposable dust/mist respirator may be used. Personnel wearing respirators should be fit tested and approved for respirator used according to OSHA standards.
	Protective Clothing	Protective Gloves (rubber, latex or nitrile), Protective Gowning. Protect exposed skin.
	Eye Protection	Safety Glasses – Avoid contact with eyes.



<i>Section 12a. Physical and Chemical Properties – Syringe A</i>		
<b>Chemical Name</b>		
2-Pyrrolidinone, 1-Methyl	Physical State	Liquid
	Color	Clear
	Odor	Mild amine-like
	pH	7.20 (~10% solution)
	Specific gravity	1.025 – 1.035 @ 25 °C
	Boiling point	396 °F
	Melting point	-12 °F
	Vapor Pressure	0.29 mm Hg @ 20 °C
	Solubility	Miscible in water
Polylactic Acid	Physical State	Solid pellets or granules
	Color	White to light gold
	Odor	Mild odor
	pH	No information found
	Specific gravity	1.34
	Boiling point	No information found
	Melting point	Amorphous
	Vapor Pressure	No information found
	Solubility	Reacts slowly with water to become soluble

<i>Section 12b. Physical and Chemical Properties – Syringe B</i>		
<b>Chemical Name</b>		
Doxycycline Hyclate	Physical State	Solid crystalline powder
	Color	Light yellow
	Odor	Essentially odorless
	pH	6.0 – 7.5
	Specific gravity	Not applicable
	Boiling point	No information found
	Melting point	201 °C – chars without melting
	Vapor Pressure	< 1 mm Hg @ 20 °C
	Solubility	Soluble in water

<i>Section 13a. Stability and Reactivity – Syringe A</i>		
<b>Chemical Name</b>		
2-Pyrrolidinone, 1-Methyl	Chemical Stability	Stable under normal conditions of handling, use and transport
	Hazardous Polymerization	Will not occur
	Conditions to Avoid	None anticipated
	Incompatible Materials	Strong oxidizing agents; strong reducing agents
	Hazardous Decomposition	Carbon monoxide, oxides of nitrogen
Polylactic Acid	Chemical Stability	Stable
	Hazardous Polymerization	No information found
	Conditions to Avoid	No information found
	Incompatible Materials	None
	Hazardous Decomposition	Decomposition will occur in the presence of water, but no hazardous decomposition except during combustion when carbon monoxide and or carbon dioxide may form.

<i>Section 13b. Stability and Reactivity – Syringe B</i>		
Chemical Name		
Doxycycline Hyclate	Chemical Stability	Stable under normal conditions of handling, use and transport
	Hazardous Polymerization	Will not occur
	Conditions to Avoid	Light and heat
	Incompatible Materials	Strong oxidizing agents; water-reactive materials
	Hazardous Decomposition	When heated material emits toxic fumes of nitrogen oxides, carbon monoxide, carbon dioxide, sulfur oxides and hydrochloric acid.

<i>Section 14a. Disposal – Syringe A</i>	
Chemical Name	Disposal of Waste Method
2-Pyrrolidinone, 1-Methyl	Federal, State and local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation procedure. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected.
Polylactic Acid	Bury in a landfill in compliance with all Federal, State and local regulations. Material is non-hazardous and biodegradable.

<i>Section 14b. Disposal – Syringe B</i>	
Chemical Name	Disposal of Waste Method
Doxycycline Hyclate	Dispose by incineration at an approved/permitted incinerator. Review local, state and federal regulations for your regulatory area.

<i>Section 15a. Ecological Information – Syringe A</i>	
Chemical Name	Environmental Fate and Environmental Toxicity
2-Pyrrolidinone, 1-Methyl	Biodegradable
Polylactic Acid	No information on environmental fate or toxicity found.

<i>Section 15b. Ecological Information – Syringe B</i>	
Chemical Name	Environmental Fate and Environmental Toxicity
Doxycycline Hyclate	No information on environmental fate or toxicity found.

<i>Section 16a. Transport Information – Syringe A</i>			
Chemical Name	Land Transportation		
	DOT (non-bulk)	DOT Shipping Name	Not regulated
		UN/NA Number	None
		Hazard Class	None
	DOT (bulk)	Bulk shipping in containers > 199 gallons is regulated.	
		DOT Shipping Name	Combustible liquid, N.O.S. (Contains n-Methyl-2-Pyrrolidone)
		UN/NA Number	1993
		Hazard Class	Combustible Liquid
		Packing Group	III
		<i>NOTE: Not regulated by IATA for air transportation; IMO for sea transportation; or by TDG for transport in Canada.</i>	
	Polylactic Acid	<i>NOTE: Not regulated by DOT for ground transport; not regulated by IATA for air transportation; IMO for sea transportation; or by TDG for transport in Canada.</i>	

**Section 16b. Transport Information – Syringe B****Chemical Name      Land Transportation**

Doxycycline Hyclate	<i>NOTE: Not regulated by DOT for ground transport; not regulated by IATA for air transportation; IMO for sea transportation; or by TDG for transport in Canada.</i>
------------------------	--

**Disclaimer:** TOLMAR, Inc. provides the information contained in this material safety data sheet in good faith, but makes no representation as to its comprehensiveness or accuracy. The information contained in this data sheet was developed from sources considered to be reliable. It is believed to be the best information available at the time of this writing. This document is intended only as a guide for the properly trained individual using appropriate precautionary handling methods of the material. Individuals receiving the information herein contained must exercise their independent judgment in determining its appropriateness for a particular purpose and manner of use. The use of the information herein contained and the conditions of use of the related product is not under the control of TOLMAR, Inc. Accordingly, TOLMAR, Inc. will not be responsible for damages resulting from use or reliance upon this information. Compliance with all applicable local, state and Federal laws and regulations is the responsibility of the user. TOLMAR, Inc. makes no representations or warranties, either expressed or implied regarding the information contained herein.