


**SECTION 1: PRODUCT IDENTIFICATION**

<b>PRODUCT NAME</b>	<b>AMPHOTERICIN B, USP (Oral Grade)</b>
<b>PRODUCT CODE</b>	<b>0191</b>
<b>SUPPLIER</b>	<b>MEDISCA Inc.</b> Tel.: 1.800.932.1039   Fax.: 1.855.850.5855 661 Route 3, Unit C, Plattsburgh, NY, 12901 6641 N. Belt Line Road, Suite 130, Irving, TX, 75063 <b>MEDISCA Pharmaceutique Inc.</b> Tel.: 1.800.665.6334   Fax.: 514.338.1693 4509 Rue Dobrin, St. Laurent, QC, H4R 2L8 21300 Gordon Way, Unit 153/158, Richmond, BC V6W 1M2 <b>MEDISCA Australia PTY LTD</b> Tel.: 1.300.786.392   Fax.: 61.2.9700.9047 Unit 7, Heritage Business Park 5-9 Ricketty Street, Mascot, NSW 2020
<b>EMERGENCY PHONE</b>	CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 NSW Poisons Information Centre: 131 126 National Chemical Emergency Centre 44(0)1235239670
<b>RECOMMENDED USES</b>	Manufacturing and Compounding
<b>RESTRICTIONS ON USE</b>	Not applicable

**SECTION 2: HAZARDS IDENTIFICATION**

<b>GHS CLASSIFICATION</b>	Acute Toxicity - Oral (Category 5) Skin Irritation (Category 2) Eye Irritation (Category 2A) Specific Target Organ Toxicity - Single Exposure (Category 3) - (respiratory) Specific Target Organ Toxicity - Repeated Exposure (Category 2) - (kidney)
<b>PICTOGRAM</b>	
<b>SIGNAL WORD</b>	Warning
<b>HAZARD STATEMENT(S)</b>	May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure (kidney).
<b>ADVERSE PHYSIOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS</b>	Not Applicable.

<b>PRECAUTIONARY STATEMENT(S)</b>	<b>Prevention</b>	Do not breathe dust, fume, gas, mist, vapors and spray. Wash hands thoroughly after handling. Do not touch eyes. Wear protective gloves, protective clothing, eye protection, face protection. Use only outdoors or in a well-ventilated area. Obtain, read and follow all special instructions before use. Do not handle until all safety precautions have been read and understood.		
	<b>Response</b>	IF ON SKIN: Wash with plenty of water. If skin irritation occurs, get medical help. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical help. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. IF SWALLOWED: Get medical help. Get medical help if you feel unwell.		
	<b>Storage</b>	Store in a well ventilated place. Keep container tightly closed. Store locked up.		
	<b>Disposal</b>	Dispose of contents and/or container in accordance with local regulations.		
<b>HMIS CLASSIFICATION</b>	<b>Health Hazard</b>	1	<b>Flammability</b>	0
	<b>Reactivity</b>	0	<b>Personal Protection</b>	E

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<b>CHEMICAL NAME</b>	[1R-(1R*,3S*,5R*,6R*,9R*,11R*,15S*,16R*,17R*,18S*,19E,21E,23E,25E,27E,29E,31E,33R*,35S*,36R*-37S*)]-33-[(3-Amino-3,6-dideoxy-β-D-mannopyranosyl)-oxy]-1,3,5,6,9,11,17,37-octahydroxy-15,16,18,-trimethyl-13-oxo-14,39-dioxabicyclo [33.3.1]nonatriaconta-19,21,23,25,27,29,31-heptaene-36-carboxylic acid.								
<b>BOTANICAL NAME</b>	Not applicable								
<b>SYNONYM</b>	Not applicable								
<b>CHEMICAL FORMULA</b>	C <sub>47</sub> H <sub>73</sub> NO <sub>17</sub>								
<b>CHEMICAL FAMILY</b>	Macrolide antibiotic								
<b>CAS NUMBER</b>	1397-89-3								
<b>ALTERNATE CAS NUMBER</b>	Not applicable								
<b>MOLECULAR WEIGHT</b>	924.0837								
<b>COMPOSITION</b>	<table border="1"> <thead> <tr> <th>CHEMICAL NAME</th> <th>CAS NUMBER</th> <th>EC NUMBER</th> <th>% BY WEIGHT</th> </tr> </thead> <tbody> <tr> <td>AMPHOTERICIN B</td> <td>1397-89-3</td> <td>215-742-2</td> <td>100</td> </tr> </tbody> </table>	CHEMICAL NAME	CAS NUMBER	EC NUMBER	% BY WEIGHT	AMPHOTERICIN B	1397-89-3	215-742-2	100
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AMPHOTERICIN B	1397-89-3	215-742-2	100						

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

### SECTION 4: FIRST-AID MEASURES

<b>IN CASE OF EYE CONTACT</b>	Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.
<b>IN CASE OF SKIN CONTACT</b>	Wash with soap & water for 15 minutes. If irritation persists seek medical aid.
<b>IF SWALLOWED</b>	Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

<b>IF INHALED</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician
<b>MEDICAL ATTENTION AND SPECIAL TREATMENT</b>	Get emergency medical help.
<b>SYMPTOMS CAUSED BY EXPOSURE</b>	Not expected to present a significant hazard under anticipated conditions of normal use.

## SECTION 5: FIREFIGHTING MEASURES

<b>SPECIFIC HAZARDS ARISING FROM THE CHEMICAL</b>	Not applicable
<b>FLAMMABLE PROPERTIES</b>	May be combustible at high temperature
<b>HAZARDOUS COMBUSTION PRODUCTS</b>	Under fire conditions, hazardous fumes will be present.
<b>SUITABLE &amp; UNSUITABLE EXTINGUISHING MEDIA</b>	<b>Small fire:</b> dry chemical, CO <sub>2</sub> or water spray. <b>Large fire:</b> dry chemical, CO <sub>2</sub> , alcohol resistant foam or water spray. Do not get water inside containers.
<b>PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>PERSONAL PRECAUTIONS</b>	Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
<b>METHODS &amp; MATERIAL FOR CONTAINMENT</b>	On land, sweep or shovel into suitable containers. Minimize generation of dust.
<b>CLEANUP PROCEDURE</b>	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.
<b>REFERENCE TO OTHER SECTIONS</b>	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

## SECTION 7: HANDLING AND STORAGE

<b>PRECAUTIONS FOR SAFE HANDLING</b>	Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling. Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.
<b>CONDITIONS FOR SAFE STORAGE</b>	Store away from incompatible materials, in a well-ventilated area. Eliminate all sources of ignition. Store in accordance with local regulations. Do not store in unlabeled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Use appropriate containment to avoid environmental contamination.
<b>STORAGE CONDITIONS</b>	Store in original container, tightly sealed, protected from direct sunlight and moisture.  Store at 2°-8°C, short term excursions up to 25°C are acceptable.

**SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION**
**Chemical Name: AMPHOTERICIN B CAS #: 1397-89-3**

	Country	Limit value-8 hours		Limit value-Short Term		IDLH	REL	Advisory	Notes
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>				
OSHA	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
ACGIH	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
NIOSH	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
WEEL	USA	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
HSIS	Australia	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
HSE	UK	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A
GESTIS	Add Country	N/L	N/L	N/L	N/L	N/L	N/L	N/A	N/A

N/L = Not listed ; N/A = Not Available

PELs are 8-hour TWAs = Limit value - Eight hours

Ceiling or Short-Term TWA = STEL = Limit value - Short term

**EXPOSURE GUIDELINES**

 Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m<sup>3</sup>
**PERSONAL PROTECTIVE EQUIPMENT**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. **Skin:** Wear appropriate gloves to prevent skin exposure. **Clothing:** Wear appropriate protective clothing to minimize contact with skin. **Respirators:** Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. **Thermal Hazards:** For products representing a thermal hazard, appropriate Personal Protective Equipment should be used.

**SPECIFIC ENGINEERING CONTROLS**

Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

**BIOLOGICAL MONITORING**

Not available

**CONTROL BANDING**

Not available

**NOTES**

 USP: ELV: Industrial: TWA: 0.08 mg/m<sup>3</sup>
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**
**PHYSICAL STATE**

Solid

**DESCRIPTION**

Yellow to orange powder; odorless or practically so.

**SOLUBILITY**

Insoluble in water, in anhydrous alcohol, in ether, in benzene, and in toluene; soluble in dimethylformamide, in dimethyl sulfoxide, and in propylene glycol; slightly soluble in methanol.

**ODOR**

Odorless or practically so

**FLAMMABILITY**

May be combustible at high temperature

**AUTO-IGNITION TEMPERATURE**

Not available

**BOILING POINT**

Not available

**DECOMPOSITION TEMPERATURE**

&gt;170°C, &gt;338°F

**EVAPORATION RATE**

Not available

**EXPLOSIVE LIMIT**

Not available

**FLASH POINT**

Not available

<b>log P (OCTANOL-WATER)</b>	-2.800	<b>LOWER FLAMMABLE/ EXPLOSIVE LIMIT(S)</b>	Not available	<b>MELTING/FREEZING POINT</b>	>170°C, >338°F (decomposes gradually)
<b>PARTICLE CHARACTERISTICS</b>	Not available	<b>OXIDIZING PROPERTY</b>	Not available	<b>pH</b>	Not available
<b>RELATIVE DENSITY (WATER = 1)</b>	Not available	<b>SPECIFIC GRAVITY</b>	Not available	<b>UPPER FLAMMABLE/ EXPLOSIVE LIMIT(S)</b>	Not available
<b>VAPOR DENSITY (AIR = 1)</b>	Not available	<b>VAPOR PRESSURE</b>	< 0.0000001 kPa (25°C)	<b>VISCOSITY</b>	Not available

The physical data presented above are typical values and should not be construed as a specification.

## SECTION 10: STABILITY AND REACTIVITY

<b>REACTIVITY</b>	Not established
<b>CHEMICAL STABILITY</b>	Stable under recommended storage conditions
<b>INCOMPATIBLE MATERIALS</b>	Strong oxidizing agents.
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	Toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides and other gases may occur
<b>HAZARDOUS POLYMERIZATION</b>	Will not occur
<b>POSSIBILITY OF HAZARDOUS REACTION</b>	Not established
<b>CONDITIONS TO AVOID</b>	Moisture, sunlight and extreme temperatures

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>ACUTE TOXICITY</b>	Oral: Rat: LD50: (mg/kg): >5000 Dermal: Rabbit LD50: (mg/kg): Not available Inhalation: Rat: LC50: (mg/L/4hr): Not available
<b>SKIN CORROSION/IRRITATION</b>	Causes skin irritation.
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	Causes serious eye irritation.
<b>RESPIRATORY SENSITIZATION</b>	Due to lack of data the classification is not possible.
<b>SKIN SENSITIZATION</b>	Due to lack of data the classification is not possible.
<b>GERM CELL MUTAGENICITY</b>	Due to lack of data the classification is not possible. Ames test (Salmonella typhimurium); Result: Negative (with and without activation). Chromosome aberration; Result: Negative. Micronucleus assay; Result: Negative. Mutagenicity, Bacterial reverse mutation assay; Result: Negative. Mutagenicity, Mouse lymphoma forward mutation assay; Result: Negative.
<b>CARCINOGENICITY</b>	<b>OSHA</b> AMPHOTERICIN B is not listed. <b>NTP</b> AMPHOTERICIN B is not listed.

<b>ADDITIONAL CARCINOGENICITY INFORMATION</b>	<b>IARC</b>	AMPHOTERICIN B is not evaluated.
<b>REPRODUCTIVE TOXICITY</b>	<b>California Proposition 65</b>	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm. Due to lack of data the classification is not possible.
<b>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE</b>		Based on available data, the classification criteria are not met. Paternal effects: Oral dose - Dog TDL0: 600 mg/kg - Prostrate, Seminal vesicle, Cowpers gland, Urethra Intravenous - Rabbit TDL0: 20 mg/kg - Spermatogenesis  Rabbit: 10 mg/kg/day Reproductivity, No significant embryofetal toxicity or birth defects in offspring; Result: Negative. Rat: 15 mg/kg/day Reproductivity, No adverse effects on fertility or male reproductive function; Result: Negative. Rat: 7.5 mg/kg/day Reproductivity, No significant embryofetal toxicity or birth defects in offspring; Result: Negative.  Due to lack of data the classification is not possible.
<b>SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE</b>		May cause damage to organs (kidney) through prolonged or repeated exposure.
<b>ASPIRATION HAZARDS</b>		Based on available data, the classification criteria are not met.
<b>SIGNS AND SYMPTOMS OF EXPOSURE</b>		ROUTES OF EXPOSURE: Oral, Dermal, Inhalation, Eye contact EARLY ONSET SYMPTOMS RELATED TO EXPOSURE: Not available DELAYED HEALTH EFFECT FROM EXPOSURE: Low blood pressure. Kidney failure
<b>POTENTIAL HEALTH EFFECTS</b>	<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
	<b>Ingestion</b>	May be harmful if swallowed. May cause allergic reaction.
	<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
	<b>Eyes</b>	Causes serious eye irritation.
<b>NOTES</b>		Symptoms related to the physical, chemical, and toxicological characteristics: Nausea. Vomiting. Diarrhea. Burning skin. Rash. Tiredness. Irregular heartbeat. Muscle pain. Blurred vision. Itching. Difficulty breathing. Wheezing. Sore throat. Chest tightness. Fever. Chills. Numbness, pain, tingling, or weakness in hands or feet. Bleeding or bruising. Indigestion. Loss of appetite. Stomach pain. Headache. Dizziness. Seizures.  Medical conditions aggravated by exposure: Impaired kidney function

## SECTION 12: ECOLOGICAL INFORMATION

<b>ECOTOXICITY</b>	EC50: 48 Hr: Crustacea: (mg/L): Not available LC50: 96 Hr: Fish: (mg/L): Not available EC50: 72 or 96 Hr: Algae (or other aqua plants): (mg/L): Not available
<b>PERSISTENCE AND DEGRADABILITY</b>	Not available
<b>BIOACCUMULATIVE POTENTIAL</b>	LogPow: -2.800

**MOBILITY IN SOIL**

Water Solubility: 750 mg/L (28°C)

**OTHER ADVERSE EFFECTS**

Not available

This product is not intended to be released into the environment

**SECTION 13: DISPOSAL CONSIDERATIONS**
**DISPOSAL METHODS**

Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.

**SECTION 14: TRANSPORT INFORMATION**
**UN PROPER SHIPPING NAME**

Not dangerous good

**UN NUMBER**

Not applicable

**CLASS**

Not applicable

**PACKING GROUP**

Not applicable

**AUSTRALIA**
**HAZCHEM**

Not applicable

**EU**
**TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE**

Not listed

**ENVIRONMENTAL HAZARDS**

Not available

**SPECIAL SHIPPING INFORMATION**

Not applicable

**SECTION 15: REGULATORY INFORMATION**
**UNITED STATES REGULATIONS**

Chemical Name & CAS	CERCLA 40 CFR Part 302.4	SARA (Title III) 40 CFR Part 372.65	EPA 40 CFR Part 355		Pennsylvania	Right-to-know		California Prop 65
			Appendix A	Appendix B		New Jersey	Massachusetts	
AMPHOTERICIN B, 1397-89-3	N/L	N/L	N/L	N/L	N/L	N/L	N/L	N/L

N/L = Not Listed; X = Listed

**AUSTRALIAN REGULATIONS**

Chemical Name & CAS	Poisons and Therapeutic Goods	Therapeutic Goods Act	Code of Practices - Illicit Drug Precursors	Poisons Standard	Work Health and Safety Regulations	Inventory of Industrial Chemicals
AMPHOTERICIN B, 1397-89-3	N/L	Listed as Schedule 4	N/L	Listed	N/L	N/L

N/L = Not Listed

**EU REGULATIONS**

