

Claris Lifesciences Inc.

SDS No. CLI/SDS/TOB.01

TOBRAMYCIN INJECTION USP

1. PRODUCT IDENTIFICATION

Common/Trade Name:	Tobramycin Injection USP
How Supplied:	Strength:
Fill Volume: 2 mLand 30 mL in Clear Glass Vial USP Type I	40 mg/mL
Chemical Class	Anti infective, Antibacterial
Chemical Name	D-Streptamine, O-3-amino-3-deoxy- α -D-glucopyranosyl- $(1\rightarrow 6)$ - O- [2, 6- diamino-2, 3, 6 – trideoxy – α - D-ribo-hexopyranosyl- $(1\rightarrow 4)$]-2-deoxy
Formula	C ₁₈ H ₃₇ N ₅ O ₉
Product Type	Prescription Drug
Product Use	Pharmaceutical, Injectable
Distributor Name	CLARIS LIFESCIENCES INC
Distributor Address	1445 US HIGHWAY 130, North Brunswick, NJ 08902
Manufacturer's Name	CLARIS INJECTABLES LIMITED
Address	CHACHARWADI-VASANA, AHMEDABAD - 382 213, INDIA.
Telephone Number For Information /Medical Emergency	1-877-7CLARIS (1-877-725-2747)
Date Prepared	September 2016





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2. HAZARDOUS IDENTIFICATION

Emergency Overview

This product is intended for therapeutic use only when prescribed by a physician. Potential adverse reactions from prescribed doses and overdoses are described in the package insert.

Occupational Exposure Potential

Information on the absorption of this product via inhalation or skin contact is not available. Avoid liquid aerosol generation and skin contact.

Signs and Symptoms

None known from work place exposure. In clinical use, adverse effects may include nausea, vomiting, diarrhea, headache, depression, dizziness, impaired balance and eye irritation, skin rashes, respiratory depression, possible kidney injury and hearing loss. Nephrotoxicity manifested by an elevated BUN or serum creatinine level or a decrease in the creatinine clearance has been reported with aminoglycosides. Aminoglycosides have produced vestibular and auditory toxicity in man and in experimental animals. Neurotoxicity manifested by ototoxicity, both vestibular and auditory, can occur in patients treated with tobramycin sulfate. Aminoglycoside-induced ototoxicity is usually irreversible. Allergic reactions during clinical use have also been reported.

Medical Conditions Aggravated by Exposure

Pre-existing hypersensitivity to tobramycin sulfate or related products. Pre-existing ocular, renal, auditory or gastrointestinal ailments; pregnancy.

3. COMPOSITION INFORMATION

Component	Content mg/ml	CAS
Tobramycin	40.0	[32986-56-4]
Edetate Disodium	0.1	[139-33-3]
Sodium Metabisulfite	3.2	[7681-57-4]
Phenol USP	5.0	[108-95-2]
Sulfuric Acid	q.s. to adjust pH	[7664-93-9]
Sodium Hydroxide	q.s. to adjust pH	[1310-73-2]
Water for Injection	q.s.to 1.0 mL	[7732-18-5]





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4. FIRST-AID MEASURES

Eye contact

Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

Skin contact

Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

Inhalation

Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

Ingestion

Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

5. FIRE-FIGHTING MEASURES:

Flammability

None anticipated for this aqueous product.

Fire & Explosion Hazard

None anticipated for this aqueous product.

Extinguishing media

As with any fire, use extinguishing media appropriate for primary cause of fire.

Special Fire Fighting Procedures

No special provisions required beyond normal firefighting equipment such as flame and chemical resistant clothing and self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill Cleanup and Disposal

Isolate area around spill. Put on suitable protective clothing and equipment as specified by site spill procedures. Absorb the liquid with suitable material and clean affected area with soap and water. Dispose of spill materials according to the applicable federal, state, or local regulations.



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7. HANDLING AND STORAGE

Handling

No special handling required for hazard control under conditions of normal product use.

Storage

No special storage required for hazard control. For product protection, follow storage recommendations noted on the product case label, the primary container label, or the product insert.

Special Precautions

No special storage required for hazard control. For product protection, follow storage recommendations noted on the product case label, the primary container label, or the product insert.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION

Respiratory protection

Respiratory protection is normally not needed during intended product use. However, if the generation of aerosols is likely, and engineering controls are not considered adequate to control potential airborne exposures, the use of an approved air-purifying respirator with a HEPA cartridge (N95 or equivalent) is recommended under conditions where airborne aerosol concentrations are not expected to be excessive. Since protection provided by air purifying respirators is limited, a powered air purifying respirator or supplied air should be considered during an uncontrolled release event, if exposure levels are not known or during events where air-purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions require respirator use. Personnel who wear respirators should be fit tested and approved for respirator use as required.

Skin protection

If skin contact with the product formulation is likely, the use of latex or nitrile gloves is recommended.

Eye protection

Eye protection is normally not required during intended product use. However, if eye contact is likely to occur, the use of chemical safety goggles (as a minimum) is recommended.

Engineering Controls

Engineering controls are normally not needed during the normal use of this product.

9.0 PHYSICAL AND CHEMICAL DATA

Appearance/Physical State : Liquid

Color : Clear and colorless sterile aqueous solution

Odor : NA Odor Threshold : NA

pH : 3.0 TO 6.5

Melting point/Freezing point : NA
Initial Boiling Point/Boiling Point Range : NA
Evaporation Rate : NA



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9.0 PHYSICAL AND CHEMICAL DATA (Cont...)

Flammability (solid, gas) : NA Upper/Lower Flammability or Explosive Limits : NA Vapor Pressure : NA Vapor Density : NA **Specific Gravity** : 1.03 Solubility : Water Partition coefficient: n-octanol/water : NA Auto-ignition temperature : NA **Decomposition temperature** : NA

10.0 STABILITY AND REACTAVITY

Reactivity: Not determined.

Chemical Stability: Stable under standard use and storage conditions.

Hazardous Reactions : Not determined.
Conditions to avoid : Not determined.
Incompatibilities : Not determined.

Hazardous decomposition products : Not determined. During thermal decomposition, it

may be possible to generate irritating vapors and/or toxic fumes of carbon oxides (COx), nitrogen oxides

(NOx), and sulfur oxides (SOx).

Hazardous Polymerization : Not anticipated to occur with this product.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Not determined for the product formulation. Information for the ingredients is as follows:

Ingredient(s)	Percent	Test	Route of	Value	Units	Species
		Туре	Administration			
Tobramycin	100	LD50	Oral	>7500	mg/kg	Rat
				>11,500	mg/kg	Mouse
Tobramycin	100	LD50	Intravenous	104	mg/kg	Rat
				72.5, 70	mg/kg	Mouse
Tobramycin	100	LD50	Oral	>10,500	mg/kg	Mouse
Sulfate						
Tobramycin	100	LD50	Intravenous	126	mg/kg	Rat
Sulfate				77	mg/kg	Mouse

Aspiration Hazard

Dermal Irritation/Corrosion
Ocular Irritation/Corrosion

: None anticipated from normal handling of this product.

: None anticipated from normal handling of this product.

: None anticipated from normal handling of this product. However, inadvertent contact of this product with eyes may produce irritation with redness and tearing.





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11. TOXICOLOGICAL INFORMATION (Cont...)

Dermal or Respiratory Sensitization

None anticipated from normal handling of this product. Allergic reactions have been reported during the clinical use of this product in patients. In addition, this product contains sodium metabisulfite, a sulfite which may cause allergic-type reactions, including anaphylactic symptoms and life-threatening or less severe asthmatic episodes, in susceptible people.

Reproductive Effects:

Aminoglycoside antibiotics cross the placenta, and there have been several reports of total irreversible bilateral congenital deafness in children whose mothers received tobramycin during pregnancy. Also, aminoglycosides may be nephrotoxic to the human fetus.

Mutagenicity:

The genotoxic potential of tobramycin sulfate has not been evaluated.

Carcinogenicity:

The carcinogenic potential of tobramycin sulfate has not been evaluated.

Target Organ Effects:

Aminoglycosides have produced vestibular and auditory toxicity in patients and experimental animals. Based on clinical use, possible target organs include the kidneys, hearing, nervous system, gastrointestinal system, eyes and fetus.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity : Not determined for product Persistence/Biodegradability : Not determined for product : Not determined for product Mobility in Soil : Not determined for product : Not deter

13. DISPOSAL CONSIDERATIONS

Waste Disposal

All waste materials must be properly characterized. Further, disposal should be performed in accordance with the federal, state or local regulatory requirements.

Container Handling and Disposal

Dispose of container and unused contents in accordance with federal, state and local regulations.



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14. TRANSPORT INFORMATION

ADR/ADG/ DOT STATUS : Not regulated : Not regu

Transport Comments : None

15. REGULATORY INFORMATION

USA Regulations

RCRA Status	Not Listed
U.S. OSHA	Target Organ Toxin Possible Reproductive Toxin Possible Irritant
Classification	
GHS	*In the EU, classification under GHS/CLP does not apply to certain
Classification	substances and mixtures, such as medicinal products as defined in
	Directive 2001/83/EC, which are in the finished state, intended for the final
	user:
Hazard Class	Not Applicable
Hazard Category	Not Applicable
Signal Word	Not Applicable
Symbol	Not Applicable
Prevention	P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
Hazard Statement	Not Applicable
Response:	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 attention. Wash hands after handling. Get medical
	attention if you feel unwell.

EU Classification*

*Medicinal products are exempt from the requirements of the EU Dangerous Preparations Directive. Information provided below is for the pure drug substance Tobramycin Sulfate

Classification(s):	Not Applicable
Symbol:	Not Applicable
Indication of	Not Applicable
Danger:	
Risk Phrases:	Not Applicable
Safety Phrases:	S23 - Do not breathe vapor.
	S24 - Avoid contact with skin.
	S25 - Avoid contact with eyes.
	S37/39 - Wear suitable gloves and eye/face
	protection.



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16. OTHER INFORMATION

ACGIH TLV	American Conference of Governmental Industrial Hygienists –
	Threshold Limit Value
CAS	Chemical Abstracts Service Number
CERCLA	US EPA law, Comprehensive Environmental Response,
	Compensation, and Liability Act
DOT	US Department of Transportation Regulations
EEL	Employee Exposure Limit
IATA	International Air Transport Association
LD50	Dosage producing 50% mortality
NA	Not applicable/Not available
NE	Not established
NIOSH	National Institute for Occupational Safety and Health
OSHA PEL	US Occupational Safety and Health Administration – Permissible
	Exposure Limit
Prop 65	California Proposition 65
RCRA	US EPA, Resource Conservation and Recovery Act
RTECS	Registry of Toxic Effects of Chemical Substances
SARA	Superfund Amendments and Reauthorization Act
STEL	15-minute Short Term Exposure Limit
TSCA	Toxic Substance Control Act
TWA	8-hour Time Weighted Average

The above information is believed to be correct based on our present knowledge but does not purport to be complete. The product is for research use only and for trained personnel. The burden of safe use of this material rests entirely with the user.