

SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product Name: **Temsirolimus Concentrate for Injection**
Manufacturer Name: Gland Pharma Ltd
Address: Gland Pharma Ltd, Block -C, Phase -1,
VSEZ, Duvvada, Visakhapatnam, Andhra Pradesh 530049
India
General Phone Number: +91-0891-2747657
Emergency Phone Number: +91-40-30510999
Distributor Name: Fresenius Kabi USA, LLC
Address: Three Corporate Drive
Lake Zurich, Illinois 60047
General Phone Number: (847) 550-2300
Customer Service Phone Number: (888) 386-1300
Health Issues Information: (800) 551-7176
SDS Creation Date: February 18, 2020
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SECTION 2 : HAZARD(S) IDENTIFICATION

GHS Pictograms:



Signal Word: DANGER.

GHS Class: Flammable Liquid, Category 2.
 Eye Irritation Category 2.
 Skin Sensitizer, Category 1.

Hazard Statements: Highly flammable liquid or vapor.
 Causes serious eye irritation.
 May cause an allergic skin reaction.

Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ ventilating/ lighting equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Wash skin thoroughly after handling.
 Wear protective gloves/ eye protection/ face protection.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 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 advice/ attention.
 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 Contaminated work clothing should not be allowed out of the workplace.
 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
 IF ON SKIN: Wash with plenty of soap and water.
 If skin irritation or rash occurs: Get medical advice/ attention.
 Wash contaminated clothing before reuse.
 Store in a well-ventilated place. Keep cool.
 Dispose of contents/ container to an approved waste disposal plant.

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.

Route of Exposure: Inhalation Ingestion Eye contact Skin Absorption. Injection.

Potential Health Effects:

Eye: Contact with eyes may cause irritation.

Ethanol

Potential Health Effects: Chronic ingestion of ethanol has been associated with an increased incidence of cancer, liver cirrhosis, and, if ingested during pregnancy, congenital malformations.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	EC Num.
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Temsirolimus	162635-04-3	2.7 %	686-177-0
Propylene glycol	57-55-6	* (Proprietary) %	200-338-0
DL-Alpha tocopherol	10191-41-0	* (Proprietary) %	233-466-0
Citric acid anhydrous	77-92-9	* (Proprietary) %	201-069-1
Ethanol	64-17-5	42.7 %	200-578-6

SECTION 4 : FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact:	Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion:	If conscious, flush mouth out with water immediately. Call a physician or poison control center immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
Other First Aid:	For Adverse Event Information, please call (800) 551-7176.

SECTION 5 : FIRE FIGHTING MEASURES

Flash Point:	21.1(°C)
Flash Point Method:	Not established.
Auto Ignition Temperature:	Not established.
Lower Flammable/Explosive Limit:	Not established.
Upper Flammable/Explosive Limit:	Not established.
Fire Fighting Instructions:	Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, dry chemical, or water fog or spray when fighting fires involving this material. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective Equipment:	As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.
Hazardous Combustion Byproducts:	Thermal decomposition products may include smoke and toxic fumes. Oxides of carbon, oxides of nitrogen and other organic substances may be formed. Other undetermined low molecular weight hydrocarbon compounds may be released in small quantities depending upon specific conditions of combustion.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Avoid personal contact and breathing vapors or mists. Use proper personal protective equipment as listed in Section 8.
Environmental Precautions:	Avoid runoff into storm sewers, ditches, and waterways.
Methods for containment:	Contain spills with an inert absorbent material such as soil, sand or oil dry.
Methods for cleanup:	Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. After removal, flush spill area with soap and water to remove trace residue.

SECTION 7 : HANDLING and STORAGE

Handling:	When handling pharmaceutical products, avoid all contact and inhalation of vapor, mists and/or fumes. Use with adequate ventilation. Use only in accordance with directions. Flammable liquid and vapor- keep away from ignition sources and clean up spills promptly. Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Avoid contact with eyes, skin, and clothing. Use appropriate personal protective equipment. Wash thoroughly after handling. Minimize generating airborne mists and vapors. Avoid breathing mist or aerosols. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases.
Storage:	Store at controlled room temperature 2 to 8°C (36 to 46°F). [See USP Controlled Room Temperature].
Work Practices:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Hygiene Practices:	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:	General ventilation is sufficient if this product is being used in a controlled medical setting (clinic, hospital, medical office) for its sole intended parenteral (injection) purpose. Otherwise, use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls including use of a biosafety cabinet / fume hood to control airborne levels below recommended exposure limits.
Eye/Face Protection:	Chemical splash goggles. Wear a face shield also when splash hazard exist.
Skin Protection Description:	Protective laboratory coat, apron, or disposable garment recommended.
Hand Protection Description:	Wear appropriate protective gloves. Consult glove manufacturer's data for permeability data. Nitrile rubber or natural rubber gloves are recommended.
Respiratory Protection:	No personal respiratory protective equipment is normally required when this product is being used/administered by a licensed healthcare practitioner (i.e. an end-user such as a clinician / doctor / nurse) for its sole intended parenteral (injection) purpose in a controlled medical setting. The need for respiratory protection will vary according to the airborne concentrations and environmental conditions. A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances. Consult the NIOSH web site (http://www.cdc.gov/niosh/npptl/topics/respirators/) for a list of respirator types and approved suppliers.
Other Protective:	Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

EXPOSURE GUIDELINES

Ethanol:

Guideline ACGIH:	TLV - STEL: 1000 ppm
Guideline OSHA:	PEL - TWA: 100 ppm

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

Physical State:	Liquid solution.
Color:	Clear colorless to pale yellow.
Odor:	No Data
Odor Threshold:	No Data
Boiling Point:	93 (°C)
Melting Point:	Not established.
Specific Gravity:	0.9237 g/mL
Solubility:	Not established.
Vapor Density:	Not established.
Vapor Pressure:	Not established.
Percent Volatile:	Not established.
pH:	Not established.
Molecular Formula:	Mixture
Molecular Weight:	328.89
Flash Point:	21.1(°C)
Flash Point Method:	Not established.
Auto Ignition Temperature:	Not established.

SECTION 10 : STABILITY and REACTIVITY

Chemical Stability:	Stable under normal temperatures and pressures.
Hazardous Polymerization:	Not reported.
Conditions to Avoid:	Fine particles (such as dust and mists) may fuel fires/explosions.
Incompatible Materials:	As a precautionary measure, keep away from strong oxidizers

SECTION 11 : TOXICOLOGICAL INFORMATION

Temsirolimus:

Ingestion:	LD50- Rat- Oral: >100 mg/kg
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Propylene glycol:

RTECS Number:	TY2000000
Skin:	LD50- Mouse- Dermal: 20,800 mg/kg

Ingestion:	LD50- Mouse- Oral: 24,900 mg/kg
<u>Citric acid anhydrous :</u>	
Ingestion:	LD50- Rat- Oral: 3000 mg/kg
<u>Ethanol :</u>	
Inhalation:	LC50- Mouse- Inhalation: 4h 39g/m3
Ingestion:	LD50 - Mouse- Oral: 3,450 g/m3
Notes :	Adverse effects associated with therapeutic use include hypersensitivity reactions, nausea, weakness, skin rash, weight loss inflammation of the mouth (stomatitis), itching sensation (pruritus), decreased white blood cells leukopenia), decreased red blood cell count (anemia), lung inflammation (pneumonitis), and infection

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:	No ecotoxicity data was found for the product.
Environmental Stability:	No environmental information found for this product.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal:	Dispose of in accordance with Local, State, Federal and Provincial regulations.
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SECTION 14 : TRANSPORT INFORMATION

DOT Shipping Name:	Ethanol Solution
DOT UN Number:	UN1170
DOT Hazard Class:	3
DOT Packing Group:	II

SECTION 15 : REGULATORY INFORMATION

TSCA Inventory Status:	Listed
Canada DSL:	Listed
<u>Temsirolimus :</u>	
EC Number:	686-177-0
<u>Propylene glycol :</u>	
EC Number:	200-338-0
<u>DL-Alpha tocopherol :</u>	
EC Number:	233-466-0
<u>Citric acid anhydrous :</u>	
EC Number:	201-069-1
<u>Ethanol :</u>	
EC Number:	200-578-6

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	3
HMIS Fire Hazard:	3
HMIS Reactivity:	0
HMIS Personal Protection:	M

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Disclaimer:	The information contained herein pertains to this material. It is the responsibility of each individual party to determine for themselves the proper means of handling and using these materials based on their purpose and intended use. Fresenius-Kabi assumes no liability resulting from the use of or reliance upon the information contained in this material safety data sheet. This material safety data sheet does not constitute the guaranty or specifications of the product.
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