Material Safety Data Sheet

Section 1: Chemical Product Company Identification	
Product Name	Leuprolide Acetate EP Impurity D
CAS No.	NA
Identified uses	Pharmaceutical Reference Standard
Details of the Supplier Company	SynZeal Research Pvt Ltd Plot No. F, Ganesh Industrial Estate 423/24/8, MahagujaratInd Estate Sarkhej-Bavla Road, Ahmedabad-382 213. Gujarat, India.
Telephone	+91-7969225400

Section 2: Chemical Information	
Chemical Name	(6S,9S,12R,15S,18S)-18-((S)-2-((S)-3-(1H-imidazol-5-yl)-2-((S)-5-oxop yrrolidine-2-carboxamido)propanamido)-3-(1H-indol-3-yl)propanami do)-1-amino-6-((S)-2-(ethylcarbamoyl)pyrrolidine-1-carbonyl)-15-(4-hydroxybenzyl)-1-imino-9,12-diisobutyl-8,11,14,17-tetraoxo-2,7,10, 13,16-pentaazanonadecan-19-yl acetate acetate
CAS No.	NA
Synonyms	4-(O-acetyl-L-serine)]leuprorelin
Molecular Weight	1251.5:60.1
Molecular Formula	C61H86N16O13: C2H4O2

Section 3: Hazards Identification	
Emergency Overview:	
Appearance	White Solid
Target Organs	NA
Potential Health Effects:	
Eye	NIL
Skin	NIL
Ingestion	NIL
Inhalation	NIL
Chronic	NIL

Wash with plenty of water Wash with plenty of water Wash with plenty of water Medical assistance for gastric lavage. Remove to fresh air, artificial respiration or oxygen if necessary. Notes to Physician Leuprolide Acetace EP Impurity D can be washed with plenty of water in case of any exposure Section 5: Firefighting Measures Section 5: Firefighting Measures Section 6: Accidental Release Measures Personal Precautions Wear self-contained breathing apparatus, avoid dust formation. Wash with plenty of water, provide adequate ventilation. Section 7: Handlings and Storage Landling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Section 8: Exposure Controls, Personal Protection Section 9: Protection Wear self-contained breathing apparatus NA Wear self-contained breathing apparatus NA Wear self-contained breathing apparatus Can be stored at room temperature Section 9: Protection Wear self-contained breathing apparatus NA Wear self-contained breathing apparatus NA September Protection Self-contained breathing apparatus NA Wear self-contained breathing apparatus NA September Protection Self-contained breathing apparatus NA Wear self-contained breathing apparatus NA Self-contained breathing apparatus NA Wear self-contained breathing apparatus Wear self-contained breathing apparatus Na Wear self-contai		
Remove to fresh air, artificial respiration or oxygen if necessary. Medical assistance for gastric lavage. Remove to fresh air, artificial respiration or oxygen if necessary. Notes to Physician Leuprolide Acetate EP Impurity D can be washed with plenty of water in case of any exposure Extinguishing Media Carbon dioxide, dry chemical powder, foam, water. Junusual Fire and Explosion Hazards None indicated Personal Precautions Wear self-contained breathing apparatus, avoid dust formation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Septiratory Protection Septiratory Protection Wear safety goggles The Protective Equipment Protective Equipment Protective Equipment Protective Limits NA Self-contained breathing apparatus National Self-contained	Section 4: First Aid Measures	
Medical assistance for gastric lavage. Remove to fresh air, artificial respiration or oxygen if necessary. Notes to Physician Leuprolide Acetate EP Impurity D can be washed with plenty of water in case of any exposure Section 5: Firefighting Measures Section 5: Firefighting Measures Section 6: Accidental Release Measures Personal Precautions Wear self-contained breathing apparatus, avoid dust formation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Septorate Equipment NA Wear safety goggles Other Protective Equipment Protective Equipment Protective Equipment Protective Cotting Full sleeves apron Cotton White Solid Odor Odor less	Eye	Wash with plenty of water
Anhalation Remove to fresh air, artificial respiration or oxygen if necessary. Notes to Physician Leuprolide Acetate EP Impurity D can be washed with plenty of water in case of any exposure Section 5: Firefighting Measures Section 5: Firefighting Measures Section 6: Accidental Release Measures Personal Precautions Wear self-contained breathing apparatus, avoid dust formation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA September 1 Self-contained breathing apparatus NA Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA September 2 Self-contained breathing apparatus NA September 3 Self-contained breathing apparatus NA September 4 Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Can be stored at room temperature Self-contained breathing apparatus Can be stored at room temperature Can be stored at room temperature	Skin	Wash with plenty of water
Leuprolide Acetate EP Impurity D can be washed with plenty of water in case of any exposure Section 5: Firefighting Measures Extinguishing Media Carbon dioxide, dry chemical powder, foam, water. Journal Fire and Explosion Hazards None indicated Personal Precautions Everyonal Precautions Wear self-contained breathing apparatus, avoid dust formation. Spills/Leaks Wash with plenty of water, provide adequate ventilation. Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA Exposure Limits NA Exposure Limits NA Exposure Limits Protective Equipment Protective Cottning Skin Full sleeves apron Cotton Cotton White Solid Odor Odor less	Ingestion	Medical assistance for gastric lavage.
in case of any exposure Section 5: Firefighting Measures Extinguishing Media Carbon dioxide, dry chemical powder, foam, water. Journal Fire and Explosion Hazards None indicated Section 6: Accidental Release Measures Personal Precautions Spills/Leaks Wash with plenty of water, provide adequate ventilation. Section 7: Handlings and Storage Landling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA Seperatory Protection Wear safety goggles Photective Equipment Protective Equipment Skin Full sleeves apron Cotton White Solid Odor less White Solid	Inhalation	Remove to fresh air, artificial respiration or oxygen if necessary.
Extinguishing Media Carbon dioxide, dry chemical powder, foam, water. None indicated Section 6: Accidental Release Measures Personal Precautions Wear self-contained breathing apparatus, avoid dust formation. Wash with plenty of water, provide adequate ventilation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA Seye Protection Wear safety goggles Physical and Chemical Properties Appearance White Solid Odor Odor less	Notes to Physician	Leuprolide Acetate EP Impurity D can be washed with plenty of water in case of any exposure
Unusual Fire and Explosion Hazards None indicated Section 6: Accidental Release Measures Personal Precautions Wear self-contained breathing apparatus, avoid dust formation. Wash with plenty of water, provide adequate ventilation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Septratory Protection Wear safety goggles Deher Protective Equipment Protective In Equipment Protective Clothing Self - Contained Dehenical Properties Appearance White Solid Odor less White Solid	Section 5: Firefighting Measures	
Section 6: Accidental Release Measures Personal Precautions Wash with plenty of water, provide adequate ventilation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA NA Seye Protection Wear safety goggles Debar Protective Equipment Protective Cothing Full sleeves apron Cotton White Solid Odor less White Solid Odor less	Extinguishing Media	Carbon dioxide, dry chemical powder, foam, water.
Personal Precautions Wear self-contained breathing apparatus, avoid dust formation. Wash with plenty of water, provide adequate ventilation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Exposure Limits NA Wear safety goggles Other Protective Equipment Protective Equipment Protective Equipment Skin Full sleeves apron Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Unusual Fire and Explosion Hazards	None indicated
Wash with plenty of water, provide adequate ventilation. Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA Exposure Limits NA Wear safety goggles Protective Equipment Protective Cothing Skin Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Section 6: Accidental Release Measures	
Section 7: Handlings and Storage Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus Exposure Limits NA Eye Protection Wear safety goggles Other Protective Equipment Protective Equipment Skin Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Personal Precautions	Wear self-contained breathing apparatus, avoid dust formation.
Handling Wear surgical gloves Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA Exposure Limits NA Wear safety goggles Other Protective Equipment Protective Equipment Protective clothing Skin Full sleeves apron Cotton Cotton Appearance White Solid Odor less	Spills/Leaks	Wash with plenty of water, provide adequate ventilation.
Can be stored at room temperature Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus Exposure Limits NA Wear safety goggles Other Protective Equipment Protective clothing Skin Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Section 7: Handlings and Storage	
Section 8: Exposure Controls, Personal Protection Respiratory Protection Self-contained breathing apparatus NA Exposure Limits NA Wear safety goggles Other Protective Equipment Protective clothing Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Handling	Wear surgical gloves
Respiratory Protection Self-contained breathing apparatus NA Eye Protection Wear safety goggles Other Protective Equipment Protective Equipment Skin Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Storage	Can be stored at room temperature
Exposure Limits NA Eye Protection Wear safety goggles Other Protective Equipment Protective clothing Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Section 8: Exposure Controls, Personal Protection	
Eye Protection Wear safety goggles Protective Clothing Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Respiratory Protection	Self-contained breathing apparatus
Other Protective Equipment Protective clothing Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Exposure Limits	NA
Full sleeves apron Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor less	Eye Protection	Wear safety goggles
Clothing Cotton Section 9: Physical and Chemical Properties Appearance White Solid Odor Odor less	Other Protective Equipment	Protective clothing
Section 9: Physical and Chemical Properties Appearance Odor Odor less	Skin	Full sleeves apron
Appearance White Solid Odor Odor less	Clothing	Cotton
Odor less	Section 9: Physical and Chemical Properties	
	Appearance	White Solid
Melting Point NA	Odor	Odor less
	Melting Point	NA

Basic

рΗ

Vapor Pressure	NA
Vapor Density	NA
Evaporation Rate	NA
Viscosity	NA
Boiling Point	NA
Decomposition Temp	NA
Auto ignition Temp.	NA
Flash Point	NA
NFPA Rating	NA
Explosion Limits	
Lower	NA
Upper	NA
Solubility	Chloroform, Methanol
Specific Gravity/Density	NA

Section 10: Stability and Reactivity	
Chemical Stability	Stable
Conditions to avoid	Direct contract to skin
Incompatibilities with other Materials	Keep away
Hazardous Decomposition Products	NIL
Hazardous Polymerization	NIL

Section 11: Toxicological Information	
CAS	NA
LD50/LC50	NA
Carcinogenicity	NIL
Epidemiology	NIL
Teratogenicity	NIL
Reproductive Effects	NIL
Neurotoxicity	NIL
Mutagencity	NIL
Other Studies	NA

Section 12: Ecological Information	
Data not available	
Section 13: Disposal Consideration	
RCRA P-Series	Can be incinerated
RCRA U-Series	NA
Section 14: Transport Consideration	
UN-Number	
ADR/RID: IMDG: IATA:	
UN proper shipping name	
ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods	
Transport hazard class(es)	
ADR/RID: IMDG: IATA:	
Packaging Group	
ADR/RID: IMDG: IATA:	
Environmental hazards	
ADR/RID: No IMDG Marine pollutant: No IATA: No	
Special precautions for users	
Further information	

Section 15: Regulatory Information	
TSCA	Attached the letter
Health and Safety Reporting List	No data available
Chemical Test Rules	Chemical analysis report is attached
Section 16: Additional Information	

This product is not bioactive, non-radioactive. It is for R/D use only. Not for drug, household or other uses.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge. It does not represent any guarantee of the product.