

Material Safety Data Sheet

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Section 1-Product Information

Product name	Luteinizing Hormone Releasing Hormone (LH-RH), human
Product Cat. No.	RP11937

Section 2-Composition / Information on Ingredients

Substance/Preparation:	Substance
Ingredient Name	Luteinizing Hormone Releasing Hormone (LH-RH), human
CAS No.	71447-49-9
SARA 313	No
Formula	C ₅₅ H ₇₅ N ₁₇ O ₁₃

Section 3- Hazards Identification

Emergency Overview

Toxic
May impair fertility.

HMIS Rating

Health	0*
Flammability	0
Reactivity	0

NFPA Rating

Health	0
Flammability	0
Reactivity	0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4- First Aid Measures

Oral Exposure	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
Inhalation Exposure	If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
Dermal Exposure	In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.
Eye Exposure	In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5- Fire Fighting Measures

Flash Point	Not available
Autoignition Temp	Not available
Flammability	Not available
Extinguishing Media	
Suitable	Carbon dioxide, dry chemical powder, or appropriate foam. Water spray
Fire Fighting	
Protective Equipment	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s)	Emits toxic fumes under fire conditions.

Section 6- Accidental Release Measures

Procedure(s) of Personal Precaution(s)	Exercise appropriate precautions to minimize direct contact
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Methods for Cleaning up

with skin or eyes and prevent inhalation of dust.
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7-Handling and Storage

Handling

User Exposure

Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage

Suitable

Storage at -20°C

Keep tightly closed

Section 8-Exposure Controls/Personal Protection Equipment

Engineering Controls

Safety shower and eye bath. Mechanical exhaust required.

Personal Protective equipment

Respiratory

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks.

Hand

Protective gloves

Eye

Chemical safety goggles

General Hygiene Measures

Wash thoroughly after handling

Section 9- Physical and Chemical Properties

Appearance

Physical State

White powder

Property

Molecular Weight

1182.29 AMU

pH

Not available

BP/BP Range

Not available

MP/MP Range

Not available

Freezing Point

Not available

Vapor Pressure

Not available

Vapor Density

Not available

Saturated Vapor Conc.

Not available

SG/Density

Not available

Bulk Density

Not available

Odor Threshold

Not available

Volatile%

Not available

VOC Content

Not available

Water Content

< 10 %

Solvent Content

Not available

Evaporation Rate

Not available

Viscosity

Not available

Surface Tension

Not available

Partition Coefficient

Not available

Decomposition Temp.

Not available

Flash Point

Not available

Explosion Limits

Not available

Flammability

Not available

Autoignition Temp

Not available

Refractive Index

Not available

Optical Rotation

Not available

Miscellaneous Data

Not available

Solubility

Solubility in Water: 25 mg/ml H₂O clear, very faintly yellow

Section 10- Stability and Reactivity

Stability

Stable	Stable
Materials to Avoid	Strong oxidizing agents
Hazardous Decomposition Products	
Hazardous Decomposition Products	Carbon monoxide, Carbon dioxide, Nitrogen oxides
Hazardous Polymerization	
Hazardous Polymerization	Will not occur

Section 11- Toxicological Information

Route of Exposure	
Skin Contact	May cause skin irritation
Skin Absorption	May be harmful if absorbed through the skin
Eye Contact	May cause eye irritation.
Inhalation	Material may be irritating to mucous membranes and upper respiratory tract, May be harmful if inhaled.
Ingestion	May be harmful if swallowed
Signs and Symptoms of Exposure	May have actions similar to luteinizing hormone releasing hormone (LH-RH) and gonadotropin releasing hormone (GN-RH) which are the key mediators in the neuroregulation of the secretion of gonadotropins, luteinizing hormone (LH) and follicle stimulating hormone (FSH). LH-RH can modify sexual behavior by regulating plasma gonadotropin and sex steroid levels.
Toxicity Data	
Oral	Rat > 3000 mg/kg LD50
Intravenous	Rat 154 mg/kg LD50
Subcutaneous	Rat >2 mg/kg LD50
Intravenous	Rat 203 mg/kg LD50
Oral	Mouse > 4000 mg/kg LD50
Intravenous	Mouse 303 mg/kg LD50
Subcutaneous	Mouse >2 mg/kg LD50
Intravenous	Mouse 416 mg/kg LD50
Chronic Exposure - Teratogen	
Species	Rabbit
Dose	260 ug/kg
Route of Application	Intravenous
Exposure Time	(6-18D PREG)
Result	Effects on Embryo or Fetus: Fetal death.
Chronic Exposure - Reproductive Hazard	

Species	Rat
Dose	54 mg/kg
Route of Application	Intravenous
Exposure Time	(17-22D PREG/21D POST)
Result	Effects on Newborn: Live birth index (# fetuses per litter; measured after birth). Effects on Newborn: Stillbirth. Effects on Newborn: Physical.
Species	Rat
Dose	5400 ug/kg
Route of Application	Intravenous
Exposure Time	(17-22D PREG/21D POST)
Result	Maternal Effects: Ovaries, fallopian tubes. Maternal Effects: Uterus, cervix, vagina. Maternal Effects: Parturition.
Species	Rat
Dose	5400 ug/kg
Route of Application	Intravenous
Exposure Time	(17-22D PREG/21D POST)
Result	Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive). Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical.
Species	Rat
Dose	540 ug/kg
Route of Application	Intravenous
Exposure Time	(17-22D PREG/21D POST)
Result	Effects on Newborn: Live birth index (# fetuses per litter; measured after birth).
Species	Rabbit
Dose	26 mg/kg
Route of Application	Intravenous
Exposure Time	(6-18D PREG)
Result	Maternal Effects: Uterus, cervix, vagina. Maternal Effects: Ovaries, fallopian tubes.
Species	Rabbit
Dose	26 mg/kg
Route of Application	Intravenous
Exposure Time	(6-18D PREG)
Result	Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth). Effects on Embryo or Fetus: Fetal death.

Section 12- Ecological Information

No data available.

Section 13- Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation	Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.
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Section 14- Transport Information

DOT	
Proper Shipping Name	None
Non-Hazardous for Transport	This substance is considered to be non-hazardous for transport.
IATA	

Non-Hazardous for Air Transport

Non-hazardous for air transport

Section 15- Regulatory Information

EU Additional Classification

Symbol of Danger	T
Indication of Danger	Toxic
R	60
Risk Statements	May impair fertility.
S	53-45
Safety Statements:	Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

US Classification and Label Text

Indication of Danger	Toxic
Risk Statements	May impair fertility.
US Statements	Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

United States Regulatory information

SARA Listed No

Canada Regulatory information

WHMIS Classification This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL No

NDSL No

Section 16- Other Information

GenScript corporation MSDS is believed to be correct but only used as a guide for experienced personnel, GenScript shall not be held liable for any damage resulting from the handling or from contact with the above product.

NON-CLINICAL RESEARCH ONLY NOT FOR HUMAN INTAKE