MATERIAL SAFETY DATA SHEET

LHRH ANALOGUE

Section I - IDENTIFICATION

PRODUCT: LHRH Analogue

SYNONYMS: Luteinizing Hormone Releasing Hormone, Des-GLY\textsubscript{10}-D-ALA\textsubscript{6}-LHRH ethylamide

CHEMICAL FORMULA: p-Glu-His-Trp-Ser-Tyr-D-Ala-Leu-Arg-Pro-NH-C\textsubscript{2}H\textsubscript{5}

CHEMICAL ABSTRACT NO.: 79561-22-1

PRODUCT CODE NO.: 13440

Section II - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>COMPOSITION</th>
<th>%</th>
<th>TLV</th>
<th>HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>LHRH Analogue</td>
<td>97%</td>
<td>N/A</td>
<td>Harmful, may cause reproductive disorders</td>
</tr>
</tbody>
</table>

Section III - HEALTH & FIRST AID INFORMATION

INHALATION: May be harmful. Remove to fresh air; if breathing becomes difficult, contact a physician.

INGESTION: May be harmful. If swallowed, wash out mouth with copious amounts of water - if the person is conscious. Contact a physician.

EYE CONTACT: May be harmful. In case of contact, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers. Contact a physician.
SKIN CONTACT: May be harmful. In case of contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and wash before re-using. Contact a physician.

OTHER HEALTH INFORMATION: The toxicological properties of sGnRHa have not been thoroughly investigated. The actions are similar to luteinizing hormone releasing hormone (LHRH, Gonadotropin releasing hormone, GnRH) in humans. LHRH is the key mediator in the liberation of the pituitary gonadotropins, luteinizing hormone (LH) and follicle stimulating hormone (FSH). LHRH may modify reproductive ability by influencing plasma gonadotropin levels and comcomitantly gonadal steroid levels.

Section IV - PHYSICAL DATA

SOLUBILITY IN WATER: Miscible

APPEARANCE AND COLOUR: White fluffy crystals

Section V - FIRE AND EXPLOSION HAZARDS

SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

UNUSUAL FIRE & EXPLOSION HAZARDS: None

Section VI - REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS & MATERIALS TO AVOID: Avoid contact with oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and nitrogen oxides.

Section VII - EMPLOYEE PROTECTION

RESPIRATORY PROTECTION: Wear approved respirator and use mechanical ventilation if possible.

PROTECTIVE CLOTHING: Wear protective clothing and chemical resistant gloves.
EYE PROTECTION: Wear tight fitting chemical safety goggles.

SPILL OR LEAK PRECAUTIONS: Wear respirator, gloves, goggles and protective clothing. Sweep up and collect in a bag for waste disposal. Ventilate area and wash thoroughly after cleanup is complete.

DISPOSAL: Observe all governmental regulations governing disposal. Dissolve in a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section VIII - REGULATORY CONTROLS

DEPT. OF TRANSPORTATION: None

OTHER REGULATORY REQUIREMENT: None

Section IX - PRECAUTIONS: HANDLING, STORAGE & USAGE

Store refrigerated. Handle with care.

PREPARED BY: MSDS Department  DATE: Update January 10, 2002