

MATERIAL SAFETY DATA SHEET
(OSHA "Hazard Communication" Rule (29) CFR 1910.1200)

1. CHEMICAL IDENTIFICATION

Product Name: ChiRhoStim[®], Human Secretin for Injection, Acetate

USAN Name: Human Secretin

Product Code: FP-0711, P-0711

NDC Number: 67066-005-01

Synonyms: H-His-Ser-Asp-Gly-Thr-Phe-Thr-Ser-Glu-Leu-Ser-Arg-Leu-Arg-Glu-Gly-Ala-Arg-Leu-Gln-Arg-Leu-Leu-Gln-Gly-Leu-Val-NH₂

2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS No: 108153-74-8

Mol. Form: C₁₃₀H₂₂₀N₄₄O₄₀(CH₃COOH)_x(H₂O)_y

Mol. Wt.: 3039.5

3. HAZARDS IDENTIFICATION

Based on the toxicity studies (see item 11) human secretin offers little potential for acute toxicity in man. However, it is still prudent to minimize and exercise due care in regards to exposure to pure human secretin powder. Human secretin pure powder should not be swallowed or inhaled. No data is available to suggest absorption through the skin.

4. FIRST-AID MEASURES

If swallowed, wash out mouth with water provided person is conscious*.

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

If inhaled, remove to fresh air. If difficulty in breathing occurs, contact physician.

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 if exposed person experiences any difficulties.

5. FIRE FIGHTING MEASURES

Extinguishing Media:

Carbon dioxide, dry chemical powder or appropriate form.

Special firefighting procedures:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards:

Emits toxic fumes under fire condition.

6. ACCIDENTAL RELEASE MEASURES

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

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.

7. HANDLING AND STORAGE

Store below -20°C in a desiccated environment and protected from light. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product. Refer to Section 8.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

NIOSH / MSHA-approved respirator.

Mechanical exhaust.

Compatible chemical-resistant gloves.

Chemical safety goggles.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:

Solid

Physical Properties:

Soluble in 1% Acetic Acid at a concentration of 1 mg/mL

Soluble in water at concentrations greater than 1 mg/mL

10. STABILITY AND REACTIVITY

Stability:

Stable under ordinary conditions of use and storage.

Hazardous combustion or decomposition products:

Toxic Fumes of:

Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Sulfur Oxides

Hazardous Polymerization:

Will not occur.

11. TOXICOLOGICAL INFORMATION

Human Secretin Acute Toxicity Study at doses 100 times the human dose (40 mcg/kg; 2.8 mg/70kg) orally to male and female mice and intravenously to male and female rabbits were **non toxic**.

Human Secretin Fourteen (14) Day Intravenous Chronic Toxicity Study in male and female rats at doses of 0.4 and 10 mcg/kg/day had no observable toxic effect. The high dose was equivalent to a total dose of 9.8 mg in a 70 kg human. A Human Secretin Fourteen (14) Day Intravenous Chronic Toxicity Study in male and female beagles at doses of 1.5 and 5 mcg/kg/day had no observable toxic effect. The high dose for beagles was equivalent to a total dose of 4.9 mg in a 70 kg human.

12. ECOLOGICAL INFORMATION

Not yet available.

13. DISPOSAL CONSIDERATIONS

Quantities of secretin <1 gm offer little or no environmental consequences. For quantities of secretin >1 gm, 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.

14. TRANSPORT INFORMATION

Contact ChiRhoClin, Inc. for transportation information.

15. REGULATORY INFORMATION


Data not available.

16. OTHER INFORMATION

The information presented herein is believed to be accurate and representative of currently accepted technical literature. However, ChiRhoClin, Inc. does not mean to imply its completeness or comprehensiveness. Therefore, we suggest the use of this information solely as a guide in the use and handling of this product, and further urge the user to determine the suitability of this material for any particular purpose. ChiRhoClin, Inc. shall not be held liable for any damages resulting from sole reliance on this information.

17. SPECIAL COMMENTS

None.


Edward D. Purich, Ph.D.
CEO and President

February 1, 2008
Date