

## Material Safety Data Sheet

Technical phone	732-885-9188 ext 127
Emergency phone	732-885-9188 ext 111
Fax	732-210-0262
Email	info@genscript.com
Date updated	07/03/2008

### Section 1-Product Information

Product name	Apelin-13, bovine, human
Product Cat. No.	RP11225

### Section 2-Composition / Information on Ingredients

Substance/Preparation:	Substance
Ingredient Name	Apelin-13, bovine, human
SARA 313	No
Formula	C <sub>69</sub> H <sub>111</sub> N <sub>22</sub> O <sub>16</sub> S

### Section 3- Hazards Identification

Emergency Overview	
Caution	The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.
HMIS Rating	
Health	3
Flammability	0
Reactivity	0
NFPA Rating	
Health	3
Flammability	0
Reactivity	0

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 to be Followed in Case of Leak or Spill	Evacuate area
Procedure(s) of Personal Precaution(s)	Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves

Methods for Cleaning up 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

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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

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Engineering Controls Mechanical exhaust required

Personal Protective equipment  
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) respirator.

Other Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.

General Hygiene Measures Wash thoroughly after handling

## Section 9- Physical and Chemical Properties

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Appearance  
Physical State White powder

Property  
Molecular Weight 1536.8 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 Not available  
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 Soluble in water

## Section 10- Stability and Reactivity

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Stability  
Stable Stable

Hazardous Decomposition Products

Hazardous Decomposition Products	Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur oxides.
Hazardous Polymerization	
Hazardous Polymerization	Will not occur

## Section 11- Toxicological Information

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Route of Exposure	
Skin Contact	May cause skin irritation
Skin Absorption	May be harmful if absorbed through the skin
Inhalation	Material may be irritating to mucous membranes and upper respiratory tract, May be harmful if inhaled.
Ingestion	May be harmful if swallowed
Conditions Aggravated by Exposure	The toxicological properties have not been thoroughly investigated.

## Section 12- Ecological Information

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No data available.

## Section 13- Disposal Considerations

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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

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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

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US Classification and Label Text	
US Statements	Caution: The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.
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

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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.