

## Material Safety Data Sheet

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Date updated	07/15/2008

### Section 1-Product Information

Product name	β-Endorphin, human
Product Cat. No.	RP11344

### Section 2-Composition / Information on Ingredients

Substance/Preparation:	Substance
Ingredient Name	β-Endorphin, human
CAS No.	61214-51-5
SARA 313	No
Formula	C <sub>158</sub> H <sub>251</sub> N <sub>39</sub> O <sub>46</sub> S

### Section 3- Hazards Identification

Emergency Overview	
Caution	Target organ(s): Nerves
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.
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

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

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

Appearance

Physical State

White powder

Property

Molecular Weight

3465.1 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

Not available

## Section 10- Stability and Reactivity

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

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

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	
S	22-24/25
Safety Statements	Do not breathe dust. Avoid contact with skin and eyes
US Classification and Label Text	
US Statements	Caution: Target organ(s): Nerves
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**