

Material Safety Data Sheet

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Section 1-Product Information

Product name	Heparanase (HPA)-1, human
Product Cat. No.	Z00169

Section 2-Composition / Information on Ingredients

Substance/Preparation:	Substance
Ingredient Name	Heparanase (HPA)-1, human
CAS No.	No
SARA 313	No
Formula	No
Specific Activity	No

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	Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.
Fire Fighting	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.
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	Keep tightly closed.
Storage at -20°C	

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	Liquid
Property	
Molecular Weight	65/50kD
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	Solubility in Water: clear, colorless 1 mg/ml H ₂ O
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Section 10- Stability and Reactivity

Stability	
Stable	Stable
Material to Avoid	Strong acids, Strong bases.
Hazardous Decomposition Products	not known
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	Substance P acts as a vasodilator, a depressant, stimulates salivation, and produces increased capillary permeability. It is also capable of producing both analgesia and hyperalgesia in animals.
Conditions Aggravated by Exposure	The toxicological properties have not been thoroughly investigated.

Section 12- Ecological Information

Ecological Information of Substance or Preparation	The preservative Proclin 300 contained in some protein preparations is toxic to fish and wildlife and therefore should not be discharged where treated effluent will leak into lakes, streams and ponds or public water. No further data available
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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

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

For R&D use only. Not for drug, household or other uses.

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.