

Revision Date:15-Jan-2020

Section 1-Identification of Substance/ Identification of Company		
Product name	(Tyr0)-Atriopeptin II (rat)	
Product Cat. No.	315351	
Chemical Formula:	$C_{107}H_{165}N_{35}O_{34}S_2$	
Supplier:	NovoPro Bioscience Inc.	
	Phone: +86-21-61941042	
	Fax: 86-216-194-1042	
Section 2-Composition / Information on Ingredients		
Substance/Preparation:	Substance	
Ingredient Name	(Tyr0)-Atriopeptin II (rat)	
SARA 313	No	
Section 3- Hazards Identification		
Classification	This substance/mixture is not considered hazardous by the	
	2012 OSHA Hazard Communication Standard (29 CFR	
	1910.1200)	
GHS Label elements, including precautionary statements		
Signal Word	Not classified	
Hazard statement(s)	None.	
Precautionary Statement(s)	None.	
Supplementary Hazard Information	May produce an allergic reaction	
Hazards not otherwise classified	Not applicable.	
(HNOC)		

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
Dormai Enposaro	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.
	1 / 4



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 Suitable Keep tightly closed Section 8-Exposure Controls/Personal Protection Equipment Engineering Controls Mechanical exhaust required Personal Protective equipment 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 muisance 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 Powder
Leak or SpillWear respirator, chemical safety goggles, rubber boots, and heavy rubber glovesMethods for Cleaning upWear respirator, chemical safety goggles, rubber boots, and heavy rubber glovesMethods for Cleaning upSweep 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 StorageHandling User ExposureHandling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection EquipmentEngineering Controls Personal Protective equipment RespiratoryMechanical exhaust requiredVear expirators 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
Procedure(s) of Personal Precaution(s)Wear respirator, chemical safety goggles, rubber boots, and heavy rubber glovesMethods for Cleaning upSweep 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 StorageAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Handling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection Equipment RespiratoryMechanical exhaust requiredPersonal Protective equipment RespiratoryUse 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. Wear appropriate government standards such as NIOSH (US) or type P1 (EN 143) respirator. Wear appropriate government protective clothing.OtherWear respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties Appearance
Methods for Cleaning upand 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.Section 7-Handling and StorageAvoid raising dust. Ventilate area and wash spill site after material pickup is complete.Handling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection Equipment RespiratoryMechanical exhaust requiredUse 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. OtherWear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceWash thoroughly after handling
Methods for Cleaning upSweep 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 StorageAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Handling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection Equipment RespiratoryMechanical exhaust requiredPersonal Protective equipment RespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.OtherWear approprities Appearance
Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.Section 7-Handling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection EquipmentMechanical exhaust requiredPersonal Protective equipment RespiratoryUse respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respirator, protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) respirator. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAvoid raising dust. Ventilate area and wash spill site after material pickup is complete.
material pickup is complete.Section 7-Handling and StorageHandling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection EquipmentEngineering Controls Personal Protective equipment RespiratoryMechanical exhaust requiredRespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
Section 7-Handling and Storage Handling User Exposure Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Storage Suitable Suitable Keep tightly closed Storage at -20°C Section 8-Exposure Controls/Personal Protection Equipment Engineering Controls Mechanical exhaust required Personal Protective equipment 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
Handling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection Equipment Engineering ControlsMechanical exhaust requiredPersonal Protective equipment RespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
Handling User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection Equipment Engineering ControlsMechanical exhaust requiredPersonal Protective equipment RespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
User ExposureAvoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Personal Protective equipment RespiratoryMechanical exhaust requiredRespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAvoid prolonged or repeated exposure.
Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection EquipmentMechanical exhaust requiredEngineering ControlsMechanical exhaust requiredPersonal Protective equipment RespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
Storage Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection EquipmentEngineering Controls Personal Protective equipment RespiratoryMechanical exhaust requiredPersonal Protective equipment RespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
Suitable Storage at -20°CKeep tightly closedSection 8-Exposure Controls/Personal Protection EquipmentEngineering Controls Personal Protective equipment RespiratoryMechanical exhaust requiredPersonal Protective equipment RespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceHer
Storage at -20°C Section 8-Exposure Controls/Personal Protection Equipment Engineering Controls Mechanical exhaust required Personal Protective equipment Mechanical exhaust required Respiratory Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Other 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
Section 8-Exposure Controls/Personal Protection Equipment Engineering Controls Mechanical exhaust required Personal Protective equipment 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
Engineering ControlsMechanical exhaust requiredPersonal Protective equipmentUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
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. 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 Wash thoroughly after handling
RespiratoryUse 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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
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.
(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. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
OtherWhere protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) respirator. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
Otheruse type N95 (US) or type P1 (EN 143) respirator. Wear appropriate government approved respirator, chemical-resistant gloves, safety goggles, other protective clothing.General Hygiene MeasuresWash thoroughly after handlingSection 9- Physical and Chemical Properties AppearanceAppearance
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
chemical-resistant gloves, safety goggles, other protective clothing. General Hygiene Measures Wash thoroughly after handling Section 9- Physical and Chemical Properties Appearance
General Hygiene Measures clothing. Section 9- Physical and Chemical Properties Appearance
General Hygiene Measures Wash thoroughly after handling Section 9- Physical and Chemical Properties Appearance
Section 9- Physical and Chemical Properties Appearance
Appearance
Appearance
••
Physical State Powder Property
Molecular Weight 2549.83
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
Vapor DensityNot availableSaturated Vapor Conc.Not available
Saturated Vapor Conc.Not availableSG/DensityNot availableBulk DensityNot available
Saturated Vapor Conc.Not availableSG/DensityNot available
Saturated Vapor Conc.Not availableSG/DensityNot availableBulk DensityNot availableOdor ThresholdNot availableVolatile%Not available
Saturated Vapor Conc.Not availableSG/DensityNot availableBulk DensityNot availableOdor ThresholdNot available
Saturated Vapor Conc.Not availableSG/DensityNot availableBulk DensityNot availableOdor ThresholdNot availableVolatile%Not availableVOC ContentNot availableWater ContentNot available
Saturated Vapor Conc.Not availableSG/DensityNot availableBulk DensityNot availableOdor ThresholdNot availableVolatile%Not availableVOC ContentNot availableWater ContentNot availableSolvent ContentNot available
Saturated Vapor Conc.Not availableSG/DensityNot availableBulk DensityNot availableOdor ThresholdNot availableVolatile%Not availableVOC ContentNot availableWater ContentNot availableSolvent ContentNot availableEvaporation RateNot available
Saturated Vapor Conc.Not availableSG/DensityNot availableBulk DensityNot availableOdor ThresholdNot availableVolatile%Not availableVOC ContentNot availableWater ContentNot availableSolvent ContentNot available



Partition Coefficient Decomposition Temp. Flash Point Explosion Limits Flammability Autoignition Temp Refractive Index Optical Rotation Miscellaneous Data Solubility	Not available Not available Not available Not available Not available Not available Not available Not available Not available Not available
Section 10- Stability and Reactivity	
Stability Stable Hazardous Decomposition Products Hazardous Decomposition Products Hazardous Polymerization Hazardous Polymerization	Stable Nature of decomposition products not known. Will not occur
Section 11- Toxicological Information	
Route of Exposure Skin Contact Eye contact Inhalation	Avoid contact with skin. Avoid contact with eyes. May cause slight irritation. Avoid breathing vapors or mists. May cause irritation of respiratory tract.
Ingestion Conditions Aggravated by Exposure	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. The toxicological properties have not been thoroughly investigated.

This product is for experimental uses only. The product has not been completely analyzed and all of the hazards may not be known.

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.
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

NovoPro corporation MSDS is believed to be correct but only used as a guide for experienced personnel, NovoPro shall not be held liable for any damage resulting from the handling or from contact with the above product.