

Revision Date:15-Jan-2020

Section 1-Identification of Substance/ Identification of Company		
Product name	horp193	
Product Cat. No.	319312	
Chemical Formula:	$C_{45}H_{71}N_{13}O_{12}S$	
Supplier:	NovoPro Bioscience Inc.	
11	Phone: +86-21-61941042	
	Fax: 86-216-194-1042	
Section 2-Composition / Information on Ingredients		
Substance/Preparation:	Substance	
Ingredient Name	horp193	
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		
Cignal Ward		
Signal Word	Not classified	
Hazard statement(s)	Not classified None.	
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Hazard statement(s)	None. None.	
Hazard statement(s) Precautionary Statement(s)	None.	
Hazard statement(s) Precautionary Statement(s) Supplementary Hazard Information	None. None. May produce an allergic reaction	

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	1 5
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.
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Section 6- Accidental Release Measur	
Procedure to be Followed in Case of	Evacuate area
Leak or Spill	
Procedure(s) of Personal Precaution(s)	Wear respirator, chemical safety goggles, rubber boots,
Mathada fan Olaanin nun	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.
	material pickup is complete.
Section 7 Handling and Storage	
Section 7-Handling and Storage	
Handling User Exposure	Avoid inhalation. Avoid contact with eyes, skin, and
User Exposure	clothing. Avoid prolonged or repeated exposure.
Storage	ciotining. Avoid protoinged of repeated exposure.
Suitable	Keep tightly closed
Storage at -20°C	Reep tightly closed
Storage at 20 C	
Section 8-Exposure Controls/Persona	Protection Equipment
Engineering Controls	Mechanical exhaust required
Personal Protective equipment	-iomaniour onnauor royan ou
Respiratory	Use respirators and components tested and approved
respiratory	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,
	abomical resistant glasses as fats gagglas, other protective
	chemical-resistant gloves, safety goggles, other protective
	clothing.
General Hygiene Measures	
	clothing. Wash thoroughly after handling
General Hygiene Measures Section 9- Physical and Chemical Pro	clothing. Wash thoroughly after handling
Section 9- Physical and Chemical Pro Appearance	clothing. Wash thoroughly after handling perties
Section 9- Physical and Chemical Pro Appearance Physical State	clothing. Wash thoroughly after handling
Section 9- Physical and Chemical Pro Appearance Physical State Property	clothing. Wash thoroughly after handling perties Powder
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight	clothing. Wash thoroughly after handling perties Powder 1018.19
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available Not available Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available Not available Not available Not available Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available Not available Not available Not available Not available Not available Not available Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc.	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile%	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile% VOC Content	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile% VOC Content Water Content	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile% VOC Content Water Content Solvent Content	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile% VOC Content Water Content Solvent Content Evaporation Rate	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not available
Section 9- Physical and Chemical Pro Appearance Physical State Property Molecular Weight pH BP/BP Range MP/MP Range Freezing Point Vapor Pressure Vapor Density Saturated Vapor Conc. SG/Density Bulk Density Odor Threshold Volatile% VOC Content Water Content Solvent Content	clothing. Wash thoroughly after handling perties Powder 1018.19 Not available Not 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.