

Material Safety Data Sheet

Section 1- Product Information

Product Name His-TEV-NRAS(2-186) (Q61L)

Catalog No. XXXXXX

Identified uses Biochemical research/analysis

Company BioMetas (Shanghai) Limited

> 2F, 330 Aidisheng Road Zhangjiang High Tech Park

Pudong New Area Shanghai, China

Section 2- Composition/information on ingredients

No components need to be disclosed according to the applicable regulations.

Section 3- Hazards Identification

HMIS Rating	
Health	0
Flammability	0
Reactivity	0
NFPA Rating	
Health	0
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 Expose	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 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 Tightly closed.

Storage at -80°C. Transport with dry ice.

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 Form: liquid

Property

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 Not available SG/Density **Bulk Density** Not available Odor Threshold Not available Volatile% Not available VOC Content Not available Not available Water Content Solvent Content Not available **Evaporation Rate** Not available Viscosity Not available Not available Surface Tension Partition Coefficient Not available Decomposition Temp. Not available Flash Point Not available

Section 10- Stability and Reactivity

Stability

Stable Stable

Hazardous Decomposition Products

Explosion Limits

Autoignition Temp

Refractive Index

Optical Rotation Miscellaneous Data

Flammability

Solubility

Hazardous Decomposition Products Nature of decomposition products not known

Not available

Not available

Not available

Not available Not available

Not available

Not available



Route of Exposure Skin Contact Skin Absorption Inhalation Ingestion Conditions Aggravated by Exposure Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation Appropriate Method of Disposal federal, Section 14- Transport Information Section 14- Transport Information Section 15- Regulatory Information Section 15- Regulatory Information Section 15- Regulatory Information Section 15- Regulatory Information United States Regulatory Information DISL NDSL Section 16- Other Information Disclaimer Nay cause skin irritation May be harmful if absorbed through the skin May be harmful if absorbed the skin May be harmful if swallowed The toxicological properties have not been thoroughly investigated. The product itself and its products of degradation are not toxic. Waste must be disposed of in accordance with transport and local environmental control regulations. Non-hazardous for in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR. No No Section 16- Other Information For research use only		n 11- Toxicological Information			
Skin Absorption Inhalation Inhalation Ingestion Conditions Aggravated by Exposure Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation Appropriate Method of Disposal federal, Section 14- Transport Information Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport Non-Hazardous for Transport IATA Non-Hazardous for Air Transport INDEL Section 15- Regulatory Information United States Regulatory Information DISL NDSL Section 16- Other Information May be harmful if absorbed through the skin Material may be irritating to mucous membranes and upper respiratory tract, May be harmful if absorbed through the skin Material may be irritating to mucous membranes and upper respiratory tract, May be harmful if absorbed through the skin Material may be irritating to mucous membranes and upper respiratory tract, May be harmful if inhaled. May be harmful if swallowed The toxicological properties have not been thoroughly investigated. The product itself and its products of degradation are not toxic. Waste must be disposed of in accordance with state and local environmental control regulations. Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport No 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. No No Section 16- Other Information		f Exposure			
Inhalation Material may be irritating to mucous membranes and upper respiratory tract, May be harmful if inhaled. May be harmful if swallowed The toxicological properties have not been thoroughly investigated. Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation The product itself and its products of degradation are not toxic. Section 13- Disposal Considerations Appropriate Method of Disposal federal, State and local environmental control regulations. Section 14- Transport Information DOT Proper Shipping Name 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 United States Regulatory Information United States Regulatory Information WHMIS Classification WHMIS Classification DOSL NO Section 16- Other Information					
Ingestion Conditions Aggravated by Exposure Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation Appropriate Method of Disposal federal, Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory Information WHMIS Classification DSL NDSL NDSL No Section 16- Other Information United States Information DSL NDSL NDSL No Section 16- Other Information United States Regulatory Information DSL NDSL Section 16- Other Information United States Regulatory Information No No Section 16- Other Information No Section 16- Other Information WHMIS Classification United States Regulatory Information WHMIS Classification No No Section 16- Other Information No No Section 16- Other Information Who Information No No No Section 16- Other Information No No No Section 16- Other Information No Section 16- Other Information			May be harmful if absorbed through the skin		
Ingestion Conditions Aggravated by Exposure May be harmful if swallowed The toxicological properties have not been thoroughly investigated. Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation The product itself and its products of degradation are not toxic. Section 13- Disposal Considerations Appropriate Method of Disposal federal, Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory Information United States Regulatory Information WHMIS Classification DSL NDSL NDSL No Section 16- Other Information Section 16- Other Information No Nay be harmful if swallowed The toxicological properties have not been thoroughly investigated. The product itself and its products of degradation are not toxic. Waste must be disposed of in accordance with state and local environmental control regulations. Waste must be disposed of in accordance with state and local environmental control regulations. Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport No 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. No No Section 16- Other Information		Inhalation			
Conditions Aggravated by Exposure Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation Appropriate Method of Disposal federal, Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Air Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory Information WHMIS Classification DSL NDSL Section 16- Other Information The toxicological properties have not been thoroughly investigated. The product itself and its products of degradation are not toxic. Waste must be disposed of in accordance with state and local environmental control regulations. Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport No 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. No No Section 16- Other Information		i e			
Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation Appropriate Method of Disposal federal, Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport Section 15- Regulatory Information United States Regulatory information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL No Section 16- Other Information	O = = = diti =				
Section 12- Ecological Information Eco-toxicity Toxicity of The Products of Biodegradation The product itself and its products of degradation are not toxic. Section 13- Disposal Considerations Appropriate Method of Disposal federal, Waste must be disposed of in accordance with state and local environmental control regulations. Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport Proper Shipping Name Non-Hazardous for Transport None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport Section 15- Regulatory Information United States Regulatory Information SARA Listed 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. No No Section 16- Other Information	Conditio	ins Aggravated by Exposure			
Eco-toxicity Toxicity of The Products of Biodegradation The product itself and its products of degradation are not toxic. Section 13- Disposal Considerations Appropriate Method of Disposal federal, Waste must be disposed of in accordance with state and local environmental control regulations. Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport Non-Hazardous for Transport Non-Hazardous for Air Transport Non-hazardous for air transport Section 15- Regulatory Information United States Regulatory Information SARA Listed Canada Regulatory Information WHMIS Classification This product itself and its products of degradation are not toxic. Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport No 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. No No Section 16- Other Information			investigateu.		
Toxicity of The Products of Biodegradation The product itself and its products of degradation are not toxic. Section 13- Disposal Considerations Appropriate Method of Disposal federal, Waste must be disposed of in accordance with state and local environmental control regulations. Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport Non-Hazardous for Air Transport Non-hazardous for air transport Section 15- Regulatory Information United States Regulatory Information SARA Listed Canada Regulatory Information WHMIS Classification WhMIS Classification This product itself and its products of degradation are not toxic. Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport No 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. No No Section 16- Other Information					
Section 13- Disposal Considerations Appropriate Method of Disposal federal, Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory Information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL NDSL No Notate must be disposed of in accordance with state and local environmental control regulations. Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport No No No 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. No No Section 16- Other Information					
Appropriate Method of Disposal federal, Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport United States Regulatory Information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL Section 16- Other Information Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport Non-hazardous for air transport No Non-hazardous for air transport No Non-hazardous for air transport No No No Section 15- Regulatory Information No No No Section 16- Other Information	Toxicity	of The Products of Biodegradation			
Appropriate Method of Disposal federal, Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport United States Regulatory Information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL Section 16- Other Information Waste must be disposed of in accordance with state and local environmental control regulations. None This substance is considered to be non-hazardous for transport. Non-hazardous for air transport Non-hazardous for air transport No Non-hazardous for air transport No Non-hazardous for air transport No No No Section 15- Regulatory Information No No No Section 16- Other Information	Section 13- Disposal Considerations				
state and local environmental control regulations. Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport None This substance is considered to be non-hazardous for transport. Non-Hazardous for Air Transport Non-hazardous for air transport Section 15- Regulatory Information United States Regulatory Information SARA Listed 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. No No Section 16- Other Information	Appropr	iate Method of Disposal	Waste must be disposed of in accordance with		
Section 14- Transport Information DOT Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information SARA Listed Canada Regulatory Information WHMIS Classification WHMIS Classification DSL NDSL No Section 16- Other Information Non-hazardous for air transport Non-hazardous for air transport No 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. No No Section 16- Other Information		•	'		
Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL No Non-hazardous for air transport Non-hazardous for air transport No 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. No No Section 16- Other Information			state and local environmental control regulations.		
Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL No Non-hazardous for air transport Non-hazardous for air transport No 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. No No Section 16- Other Information					
Proper Shipping Name Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL No Non-hazardous for air transport Non-hazardous for air transport No Canada Regulatory information 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. No No Section 16- Other Information		1 14- Transport Information			
Non-Hazardous for Transport IATA Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information SARA Listed Canada Regulatory Information WHMIS Classification DSL NDSL Section 16- Other Information This substance is considered to be non-hazardous for transport. Non-hazardous for air transport No No No No Section 15- Regulatory Information No No No No No 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. No No Section 16- Other Information	DOT	December Objection Name	Name		
IATA Non-Hazardous for Air Transport Non-hazardous for air transport Section 15- Regulatory Information United States Regulatory information SARA Listed 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. No No Section 16- Other Information					
Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information SARA Listed 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. No No Section 16- Other Information		Non-Hazardous for Transport			
Non-Hazardous for Air Transport Section 15- Regulatory Information United States Regulatory information SARA Listed 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 NDSL No Section 16- Other Information	ΙΔΤΔ		transport.		
Section 15- Regulatory Information United States Regulatory information SARA Listed 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 NDSL No Section 16- Other Information	171171	Non-Hazardous for Air Transport	Non-hazardous for air transport		
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 NDSL No Section 16- Other Information					
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 NDSL No Section 16- Other Information	Section	15- Regulatory Information			
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 NDSL No Section 16- Other 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 NDSL No No Section 16- Other Information		SARA Listed	No		
the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR. DSL No No No No Section 16- Other Information	Canada				
Contains all the information required by the CPR. NO NDSL NO Section 16- Other Information		WHMIS Classification			
DSL No No No No Section 16- Other Information					
NDSL No Section 16- Other Information			· · · · · · · · · · · · · · · · · · ·		
Section 16- Other Information			1.0		
		NDSL	No		
	Section 16- Other Information				
			For research use only		

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.