

Material Safety Data Sheet

Section 1- Product Information

Product Name	hTNFa(77-233)-His
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 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 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	
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	Nature of decomposition products not known

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

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	Waste must be disposed of in accordance with federal, state and local environmental control 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

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

Disclaimer	For research use only
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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.