

Material Safety Data Sheet

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Version 1.1

Section 1- Product Information

Product Name: Tumor Necrosis Factor-alpha (TNF-alpha), Human
Product Cat. No.: Z01001-10, Z01001-50, Z01001-1

Section 2- Composition / Information on Ingredients

Substance / Preparation: This product does not contain hazardous chemicals at concentrations of 1% or greater. Additionally, this product is not known to contain carcinogens at concentrations of 0.1% or greater. As a result, a Material Safety Data Sheet is not required for this product.

Ingredient Name: Tumor Necrosis Factor-alpha (TNF-alpha), Human

Section 3- Hazards Identification

Classification: This substance does not meet the classification criteria of the EC Directives 67/548/EEC, 1999/45/EC or 1272/2008.

Label Elements: The product does not need to be labeled in accordance with EC directives or respective national laws.

Special Hazards: None

Section 4- First Aid Measures

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately wash with water and soap and rinse thoroughly. Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Rinse mouth with water. Seek medical attention and appropriate follow-up.

Section 5- Fire Fighting Measures

Suitable extinguishing agents: The product is non-flammable. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Protective equipment: Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

Section 6- Accidental Release Measures

Person-related safety precautions: Use standard laboratory practices including proper personal protective equipment.

Measures for environmental protection: Do not let product enter drains.

Measures for containment and cleaning: Absorb liquid components with liquid-binding material.
Ventilate area and wash spill site after material pickup is complete.
Pick up mechanically.
Dispose contaminated material as waste according to item 13.

Additional information: None.

Section 7- Handling and Storage

Precautions for safe handling: No special measures required. No special precautions are necessary if used correctly

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage: Store according to product specifications.

Section 8- Exposure Controls/Personal Protection Equipment

Control parameters: None known. Contains no substances with occupational exposure limits.

Appropriate engineering controls: Follow usual standard laboratory practices. Use appropriate chemical resistant gloves, appropriate safety glasses and wear protective work clothing.

Section 9- Physical and Chemical Properties

Appearance:	Lyophilized white powder
Odor:	Little to none.
Odor threshold:	Not available.
Melting point/freezing point:	Not available
Flash point:	Not available
Evaporation rate:	Undetermined
Flammability:	Not available
Upper/lower flammability or explosive limits:	Not available
Vapor pressure/density:	Not available
Relative Density:	Not available
Solubility in/Miscibility with Water:	Not available
Partition coefficient:	Not available
Auto igniting:	Product is not self igniting.
Decomposition temperature:	Not available
Viscosity:	Not available

Section 10- Stability and Reactivity

Reactivity:	Stable under recommended transport and storage conditions.
Chemical Stability:	Stable under recommended storage and handling temperatures.
Possible hazardous reactions:	Hazardous reactions will not occur under normal transport or storage conditions.
Incompatible materials to be avoided:	Heat and moisture.
Incompatible materials:	Strong acids/alkalis, strong oxidizing/reducing agents.
Hazardous decomposition products:	In combustion may emit toxic fumes. No known decomposition information.

Section 11- Toxicological Information

Acute toxicity:	Classification criteria are not met based on available data.
Skin irritant effect:	Classification criteria are not met based on available data.
Eye irritant effect:	Classification criteria are not met based on available data.
Sensitization:	Classification criteria are not met based on available data.
Mutagenicity:	Classification criteria are not met based on available data.
Carcinogenicity:	Classification criteria are not met based on available data.
Reproductive toxicity:	Classification criteria are not met based on available data.
Additional toxicological information:	When used and handled according to specifications, the product does not have any harmful effects according to available information.

Section 12- Ecological Information

Ecotoxicity:	Undetermined.
Biodegradability:	Undetermined.
Mobility:	Undetermined.

Section 13- Disposal Considerations

Disposal methods:	Dispose of waste in accordance to applicable national, regional, or local regulations.
Contaminated packaging:	Dispose in the same manner as unused product.
Special precautions:	Dispose of small amounts of spilled material as described in section 6. Large spills must be dealt with separately by qualified disposal personnel. Avoid dispersal of spilt material to soil, waterways, drains and sewers.

Section 14- Transport Information

UN Number:	Does not meet the criteria for classification as hazardous for transport.
DOT regulations:	Hazard class: None
Land transport ADR/RID (cross-border):	Not regulated.
Maritime transport IMDG:	Not regulated.
Marine pollutant:	No
Air transport ICAO-TI and IATA-DGR:	Not regulated.
Transport/Additional information:	Not dangerous according to the above specifications.

Section 15- Regulatory Information

US Federal and State Regulations	
TSCA (Toxic Substances Control Act):	This product is not listed.

SARA 313:	This product is not listed.
SARA 311/312 Hazards:	None known
CERCLA Reportable Quantity:	Unknown

Section 16- Other Information

Disclaimer

For *in vitro* research use only.

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.