



MATERIAL SAFETY DATA SHEET

Section 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier:
- | | |
|---------------------------|---|
| Product name: | Human TNF alpha (recombinant) |
| Product no./Catalog #(s): | 6526 |
| Internal ID: | Recombinant Human TNF alpha made in yeast (lyophilized) |
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:
- | | |
|------------------|------------------------|
| Identified uses: | For research use only. |
|------------------|------------------------|
- 1.3 Details of the supplier of the safety data sheet:
- | | |
|-----------------|---|
| Supplier: | ImmunoChemistry Technologies, LLC
9401 James Avenue South, Suite #155
Bloomington, MN 55431-2500 USA
www.immunochemistry.com
1-800-829-3194 and 952-888-8788
Fax 952-888-8988
help@immunochemistry.com |
| Contact person: | Sally Hed |
- 1.4 Emergency telephone number:
1-800-829-3194 / 952-888-8788 (Hours: 9 am-5 pm central standard time, Monday-Friday)

Section 2: Hazards identification

- 2.1 Classification of the substance or mixture:
- | | |
|--------------------------------|-----------------|
| Classification (EC 1272/2008) | |
| Physical and chemical hazards: | Not classified. |
| Human health: | Not classified. |
| Environment: | Not classified. |
| Classification (67/548/EEC) | Not classified. |
- 2.2 Label elements: Label in accordance with (EC) No. 1272/2008: Not classified.
- 2.3 Other hazards: No information available.

Section 3: Composition/information on ingredients

- 3.1 Substances:
- | | |
|---------------|-------------------------------|
| Product name: | Human TNF alpha (recombinant) |
|---------------|-------------------------------|

Section 4: First aid measures

- 4.1 Description of first aid measures:
- | | |
|---------------|---|
| Inhalation: | Due to the small packaging the risk of inhalation is minimal. Move into fresh air and keep at rest. Get medical attention if any discomfort continues. |
| Ingestion: | NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues. |
| Skin contact: | Wash skin thoroughly with soap and water for several minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. |
| Eye contact: | Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues. |
- 4.2 Most important symptoms and effects, both acute and delayed:
- | | |
|---------------|--|
| Inhalation: | May cause coughing or mild irritation. |
| Ingestion: | May cause discomfort if swallowed. |
| Skin contact: | Prolonged skin contact may cause redness and irritation. |
| Eye contact: | May cause temporary eye irritation. |
- 4.3 Indication of any immediate medical attention and special treatment needed: no specific first aid measures noted.

Section 5: Firefighting measures

- 5.1 Extinguishing media: Water spray, foam, dry powder, or carbon dioxide.
- 5.2 Special hazards arising from the substance or mixture:
 Hazardous combustion products: None under normal conditions.
 Unusual fire & explosion hazards: No unusual fire or explosion hazards noted.
- 5.3 Advice for firefighters:
 Special firefighting procedures: No specific firefighting procedure given.
 Protective measures in fire: Use protective equipment appropriate for surrounding materials.

Section 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures: Wear protective clothing as described in Section 8.
 Avoid inhalation of dust.
 Avoid contact with skin and eyes.
- 6.2 Environmental precautions: Do not allow to enter drains, sewers, or watercourses.
- 6.3 Methods and materials for containment and clean up: Avoid contact with skin or inhalation of spillage, dust, or vapor.
 Collect and reclaim or dispose in sealed containers in licensed waste.
- 6.4 Reference to other sections: Wear protective clothing as described in Section 8.

Section 7: Handling and storage

- 7.1 Precautions for safe handling: Avoid inhalation of dust and contact with skin and eyes. Good personal hygiene is necessary.
 Wash hands and contaminated areas with water and soap before leaving the work site.
- 7.2 Conditions for safe storage, including any incompatibilities: Protect from light. Keep in original container. Store at specified temperature. Refer to product label.
- 7.3 Specific end use(s) The identified uses for this product are detailed in Section 1.2.

Section 8: Exposure controls/personal protection

- 8.1 Control parameters:
- 8.2 Exposure controls:
 Protective equipment:



- Process conditions: Provide eyewash station.
- Engineering measures: Provide adequate ventilation.
- Respiratory equipment: No specific recommendations.
- Hand protection: Use suitable protective gloves if risk of skin contact.
- Eye protection: Wear approved chemical safety goggles where eye exposure is reasonably probable.
- Other protection: Wear appropriate clothing to prevent any possibility of skin contact.
- Hygiene measures: DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated.
- Skin protection: Wear apron or protective clothing in case of contact.

Section 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties:
- Appearance: Powder, dust.
- Color: Varying
- Odor: No characteristic odor.
- Solubility: Soluble in water.
- Melting point (°C): Not determined.
- Relative density: Not determined.
- Vapor density (Air =1): Not applicable.
- Vapor pressure: Not applicable.
- Evaporation rate: Not applicable.
- Viscosity: Not determined.
- Decomposition temperature (°C): Not determined.
- Flash point (°C): Not determined.

	Auto ignition temperature (°C):	Not determined.
	Flammability limit – lower (%):	Not determined.
	Partition coefficient (N-octanol/water)	Not determined.
	Explosive properties:	Not determined.
	Oxidizing properties:	Not determined.
9.2	Other information:	None.

Section 10: Stability and reactivity

10.1	Reactivity:	No data available.
10.2	Chemical stability:	Stable under normal temperature conditions.
10.3	Possibility of hazardous reactions:	Not determined.
10.4	Conditions to avoid:	Avoid exposure to high temperatures or direct sunlight.
10.5	Incompatible materials:	Materials to avoid: No data available.
10.6	Hazardous decomposition products:	None under normal conditions.

Section 11: Toxicological information

11.1	Information on toxicological effects:	
	Toxicological information	No information available.
	Skin corrosion/irritation – human skin model test:	Not determined.
	Serious eye damage/irritation:	Not determined.
	Respiratory sensitization:	Not determined.
	Skin sensitization:	Not determined.
	Germ cell mutagenicity (in vitro):	Not determined.
	Germ cell mutagenicity (in vivo):	Not determined.
	Carcinogenicity:	Not determined.
	Reproductive toxicity	Not determined.
	STOT-single exposure:	Not determined.
	STOT-repeated exposure:	Not determined.
	Aspiration hazard:	Not determined.
	General information:	No specific health warnings noted.
	Inhalation:	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
	Ingestion:	May cause discomfort if swallowed.
	Skin contact:	Liquid may irritate skin.
	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
	Health warnings:	Because of quantity and composition, the health hazard is small.
	Route of entry:	Skin and/or eye contact.
	Medical symptoms:	No specific symptoms noted.

Section 12: Ecological information

12.1	Acute toxicity – Fish:	Not determined.
12.2	Persistence and degradability:	Degradability: there are no data on the degradability of this product.
12.3	Bioaccumulative potential:	No data available on bioaccumulation.
12.4	Mobility in soil:	No data available.
12.5	Results of PBT and vPvB assessment:	No information available.
12.6	Other adverse effects:	Not determined.

Section 13: Disposal considerations

General information: when handling waste, consideration should be made to the safety precautions applying to handling of the product.	
13.1	Waste treatment methods: dispose of waste and residues in accordance with local authority requirements.

Section 14: Transport information

General: the product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

Road transport notes:	Not classified.
Rail transport notes:	Not classified.
Sea transport notes:	Not classified.
Air transport notes:	Not classified.
14.1 UN number:	Not applicable.
14.2 UN proper shipping name:	Not applicable.
14.3 Transport hazard class(es):	Not applicable.
14.4 Packing group:	Not applicable.
14.5 Environmental hazards: Environmentally hazardous substance/marine pollutant:	No.
14.6 Special precautions for user:	Not applicable.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code:	Not applicable.

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:	
Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
Guidance notes:	Workplace exposure limits EH40.
EU Legislation:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2 Chemical safety assessment:	No chemical safety assessment has been carried out.

Section 16: Other information

General information: only trained personnel should use this material.

SDS No:	F17-6358-3-A
SDS Date:	January 10, 2014
Recombinant Human TNF alpha updated on:	1/29/2014
Risk phrases in full:	
NC	Not classified.
Hazard statements in full:	None

DISCLAIMER:

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.