

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY / UNDERTAKING

### 1.1 Product identifier.

**Product name:** Rat TNF-alpha, C-His, Flag Tag Protein

**Product number:** HA210538

**Pure substance/mixture:** Mixture

### 1.2 Relevant identified uses of the substance or mixture and uses advised

**against: Product use:** For research purposes only. Not for diagnostic purposes

### 1.3 Details of the supplier of the safety data sheet:

**Company:** HUABIO  
300 Tradecenter Drive, Suite 1710  
Woburn, MA 01801, USA  
E-mail address: support@huabio.com

## SECTION 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture according to CLP No 1272 / 2008/GB CLP.

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

### 2.2 Label elements CLP No 1272/2008/GB

#### CLP.

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

### 2.3 Other hazards.

Contains no PBT or vPvB substances according to REACH No 1907/2006.

This mixture does not contain substances with endocrine disrupting properties in accordance with the criteria laid down in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance:

The product is a mixture.

### 3.2 Mixtures:

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

## SECTION 4. FIRST AID MEASURES

### 4.1 Description of first aid measures.

<b>Inhalation:</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
<b>Skin contact:</b>	Wash skin with plenty of soap and water. Seek doctor if irritation persist.
<b>Eye contact:</b>	Remove contact lenses. Flush eyes with plenty of water for several minutes. Make sure you flush under the upper and lower eyelids. If irritation continues, contact a doctor.
<b>Swallow:</b>	Rinse mouth

### 4.2 Most important symptoms and effects, both acute and delayed:

For more information, see Section 2.2.

### 4.3 Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

## SECTION 5. FIRE FIGHTING MEASURES

**5.1 Extinguishing media:** Water spray, dry chemical, carbon dioxide (CO<sub>2</sub>) or chemical foam.

### Unsuitable extinguishing media:

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture:

Carbon oxides

Not combustible.

**5.3 Advice for firefighters:** Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.

### 6.2 Environmental precautions:

See section 12 for additional environmental disclosures.

### 6.3 Methods and material for containment and cleaning up:

Avoid further leaks or spills if it is safe to do.

Pick up mechanically and dispose of in suitable containers.

### 6.4 Reference to other sections:

See section 8 for information on personal protection equipment. See section 13 for disposal information.

## SECTION 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

Ensure adequate ventilation.

### 7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed and recommended storage temperature -20 ° C.

Storage class (TRGS 510) LGK 10.

### 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.

#### Appropriate technical measures:

Change contaminated clothing. Wash hands after working with substance.

#### General information:

Make sure that eyewash station is available.

#### Personal protective equipment:

Only CE-marked personal protection equipment should be used.



#### Respiratory protection:

Not necessary.

#### Hand protection:

Wear gloves. EN 374.  
Option: Nitrile gloves: ≥120  
min. Thickness: ≥0.25 mm.

#### Eye protection:

Wear tightly safety goggles. EN 166.

#### Body protection:

Normal work clothing.

#### Measures to avoid environmental exposure:

No special precautions are necessary.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties.

Physical state:	Liquid
Colour:	No data available.
Odour:	No data available.
Melting point/freezing point:	No data available.
Boiling point:	No data available.
Flammability:	No data available.
Lower and upper explosion limit:	No data available.
Flash point:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
pH:	No data available.
Kinematic viscosity:	No data available.
Solubility:	No data available.

Partition coefficient n-octanol/water:	No data available.
Vapour pressure:	No data available.
Density and/or relative density:	No data available.
Relative vapour density:	No data available.
Particle characteristics:	No data available.

**9.2 Other information:**  
None.

## SECTION 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** No information is available.

**10.2 Chemical stability:** Stable under normal conditions.

**10.3 Possibility of hazardous reactions:**  
None known.

**10.4 Conditions to avoid:** None known.

**10.5 Incompatible materials:** Strong oxidizing agents.

**10.6 Hazardous decomposition products:**  
According to available information, none known.

## SECTION 11. TOXICOLOGICAL INFORMATION

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008.**

**Acute toxicity:** Oral: No date available  
Inhalation: No date available  
Dermal: No date available

**Skin corrosion/irritation:** No date available

**Serious eye damage/irritation:** No date available

**Respiratory or skin sensitisation:** No date available

**Germ cell mutagenicity:** No date available

**Carcinogenicity:** No date available

**Reproductive toxicity:** No date available

**Specific target organ toxicity - single exposure:** No date available

**Specific target organ toxicity - repeated exposure:** No date available

**Aspiration hazard:** No date available

**11.2 Information on other hazards:**

**Endocrine disrupting properties:**

The product/substance has no endocrine disrupting properties.

**Other information:**

Ingestion May irritate the digestive system.  
Skin contact Skin irritation.  
Eye contact May cause severe eye damage.

**SECTION 12. ECOLOGICAL INFORMATION**

**12.1 Toxicity:**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**12.2 Persistence and degradability:** Inherently biodegradable.

**12.3 Bioaccumulative potential:** Material does not bioaccumulate.

**12.4 Mobility in soil:** No information available.

**12.5 Result of PBT and vPvB assesment:**

This substancee does not meet the criteria for PBT or vPvB according to regulation.

**12.6 Endocrine disrupting properties:**

The product/substance has no endocrine disrupting properties.

**12.7 Other adverse effects:** None known.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods:**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental regulations.

**Contaminated packing:** Do not reuse emptied containers.

**SECTION 14. TRANSPORT INFORMATION**

This product is not classified as dangerous of transport.

	<b>ADR/RID</b>	<b>IMDG/IMO</b>
<b>14.1 UN number or ID number</b>	Not relevant	Not relevant
<b>14.2 UN proper shipping name</b>	Not relevant	Not relevant
<b>14.3 Transport hazard class(es)</b>	Not relevant	Not relevant
<b>14.4 Packing group</b>	Not relevant	Not relevant

<b>14.5 Environmental hazards - MP EmS:</b>	No Not relevant	No Not relevant
<b>Other informations</b>	LQ: Not relevant Tunnel: Not relevant	LQ: Not relevant Tunnel: Not relevant

**14.6 Special precautions for user:**

Not relevant.

**14.7 Maritime transport in bulk according to IMO instruments:**

Not relevant.

## SECTION 15. REGULATORY INFORMATION

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Sources:** Current ADR regulations 2024. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013. Regulation (EU) 2016/425 of 9 March 2016 on personal protective equipment. Hazardous Waste (England and Wales) Regulations 2005 (as amended). EC regulation 1907/2006 (REACH) Directive 2000/532/EC. Seveso directive: 96/82/EC. EC regulation No 2020/878. CLP regulation No 1272/2008.  
REACH regulation 1907/2006. GB CLP.

**15.2 Chemical safety assessment:**

Not necessary.

## SECTION 16. OTHER INFORMATION

**Additional information:**

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.