

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

1.1 Product identifier.

Product name: Liver Arginase Recombinant Rabbit Monoclonal Antibody [SY09-06]

Product number: ET1605-8

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:

| CAS/EC No | REACH No | Name | Content % | Classification |
|------------------------|----------------------------|-----------|-------------------|----------------|
| 56-81-5 / 200-289-5 | 01-2119471987- 18- XXXX | Glycerine | >= 30 - < 50 % | Not classified |

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures.

| | |
|----------------------|---|
| Inhalation: | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. |
| Skin contact: | Wash skin with plenty of soap and water. Seek doctor if irritation persist. |
| Eye contact: | 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. |
| Swallow: | 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 (CO₂) 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

| Chemical Name | EU OEL (TWA) | EU OEL (STEL) | EU Skin Notation |
|------------------|--------------|---------------|------------------|
| Glycerin 56-81-5 | None | None | None |

| Chemical Name | Austria | Belgium (TWA) | Czech Republic |
|------------------|---------|----------------------|--|
| Glycerin 56-81-5 | None | 10 mg/m ³ | 10 mg/m ³ TWA 15 mg/m ³ Ceiling |

| Chemical Name | Denmark (TWA) | Finland OEL (TWA) | France OEL (VME) |
|------------------|---------------|-------------------|----------------------|
| Glycerin 56-81-5 | None | None | 10 mg/m ³ |

| Chemical Name | Germany OEL (TWA) | Ireland (TWA) | Italy OEL (TWA) |
|------------------|---|---------------|-----------------|
| Glycerin 56-81-5 | 200 mg/m ³ exposure factor 2 | None | None |

| Chemical Name | Lithuania OEL (TWA) | Netherlands OEL (MAC) | Norway |
|------------------|---------------------|-----------------------|--------|
| Glycerin 56-81-5 | None | None | None |

| Chemical Name | Poland | Portugal | Spain OEL (TWA) |
|------------------|--------------------------|--------------------------|----------------------|
| Glycerin 56-81-5 | 10 mg/m ³ TWA | 10 mg/m ³ TWA | 10 mg/m ³ |

| Chemical Name | Sweden - Occupational Exposure Limits - TLVs (LLVs) | Switzerland | United Kingdom |
|------------------|---|--|---------------------------------|
| Glycerin 56-81-5 | None | 100 mg/m ³ STEL 50 mg/m ³ TWA | 10 mg/m ³ TWA (mist) |

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.

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|--------------------|-------------------|-----------------|
| Glycerin | = 12600 mg/kg Oral | > 10 g/kg(Rabbit) | >2.75mg/L(Rat) |

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.

| Chemical Name | Toxicity to algae | Toxicity to daphnia and other aquatic invertebrates | Toxicity to fish | Microtox Data | log Pow |
|---------------|-------------------|---|-------------------|-------------------|-------------|
| Glycerin | No data available | No data available | No data available | No data available | logPow-1.76 |

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 substance 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.

| | ADR/RID | IMDG/IMO |
|------------------------------------|--------------|--------------|
| 14.1 UN number or ID number | Not relevant | Not relevant |

| | | |
|---|--|--|
| 14.2 UN proper shipping name | Not relevant | Not relevant |
| 14.3 Transport hazard class(es) | Not relevant | Not relevant |
| 14.4 Packing group | Not relevant | Not relevant |
| 14.5 Environmental hazards - MP EmS: | No Not relevant | No Not relevant |
| Other informations | 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.

Safety data sheet

Example

Version 1.0

Effective date: 14-08-2024

Descriptions of possible used abbreviations:

BCF Bioconcentration factor.

BOD Biochemical Oxygen Demand.

CAS Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances).

COD Chemical oxygen demand.

DNEL Derived No-Effect Level.

EC50 Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval.

IMDG International Maritime Dangerous Goods Code.

LC50 Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval.

LD50 Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval.

log KOW n-Octanol/water.

MARPOL International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant").

PBT Persistent, Bioaccumulative and Toxic.

PNEC Predicted No-Effect Concentration.

UN RTDG UN Recommendations on the Transport of Dangerous Good.

vPvB Very Persistent and very Bioaccumulative.

Validated by:

SRS

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