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

| 1.1 Product identifier. | |
|------------------------------------|--|
| Product name: | pan Cytokeratin Recombinant Mouse Monoclonal Antibody [PDH09-10] |
| Product number: | HA601138 |
| 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 | ne 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 Subtance:

The product is a mixture.

3.2 Mixtures:

| CAS/EC No | REACH No | Name | Content % | Classification |
|-----------|----------------------------|-----------|-------------------|----------------|
| 56-81-5 / | 01-2119471987- 18- XXXX | Glycerine | >= 30 - < 50 % | Not classified |
| 200-289-5 | | | 70 | |



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:



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/m³ 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 |
| Giyceriii 30-81-3 | None | None | 10 mg/m |
| Chemical Name | Germany OEL (TWA) | Ireland (TWA) | Italy OEL (TWA) |
| | 200 mg/m ³ exposure factor 2 | None | None |
| Glycerin 56-81-5 | | None | None |
| Chemical Name | Lithuania OEL (TWA) | Netherlands OEL (MAC) | Norway |
| Glycerin 56-81-5 | None | None | None |
| | None | None | None |
| | | | |
| Chemical Name | Poland | Portugal | Spain OEL (TWA) |
| Glycerin 56-81-5 | 10 mg/m³ TWA | 10 mg/m³ TWA | 10 mg/m ³ |
| | | | |
| Chemical Name | Sweden - Occupational Exposure Limits - TLVs (LLVs) | Switzerland | United Kingdom |
| | None | 100 mg/m ³ STEL | 10 mg/m ³ TWA (mist) |
| Glycerin 56-81-5 | | | |

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.

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 LC5 0 |
|---------------|--------------------|-------------------|------------------|
| 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 haza | ırds: |
| Endocrine disrupting propertie | es: 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 assessment: 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.

| | 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 www.msds-eu.com