

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

### 1.1 Product identifier.

**Product name:** Nrf2 Rabbit Polyclonal Antibody

**Product number:** ER1706-41

**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 /<br>200-289-5 | 01-2119471987-<br>18- XXXX | Glycerine | >= 30 - < 50<br>% | Not classified |

## 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

| 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 <sup>3</sup> | 10 mg/m <sup>3</sup> TWA<br>15 mg/m <sup>3</sup> Ceiling |

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

| Chemical Name    | Germany OEL (TWA)                       | Ireland (TWA) | Italy OEL (TWA) |
|------------------|---|---------------|-----------------|
| Glycerin 56-81-5 | 200 mg/m <sup>3</sup> 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 <sup>3</sup> TWA | 10 mg/m <sup>3</sup> TWA | 10 mg/m <sup>3</sup> |

| Chemical Name    | Sweden - Occupational Exposure Limits - TLVs (LLVs) | Switzerland  | United Kingdom                  |
|------------------|---|--|---------------------------------|
| Glycerin 56-81-5 | None  | 100 mg/m <sup>3</sup> STEL<br>50 mg/m <sup>3</sup> TWA | 10 mg/m <sup>3</sup> 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     |
|------------------------------------|--------------|--------------|
| <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<br>Not relevant                       | No<br>Not relevant                       |
| <b>Other informations</b>                   | LQ: Not relevant<br>Tunnel: Not relevant | LQ: Not relevant<br>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](http://www.msds-eu.com)

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