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

1.1 Product identifier.

Product name: **Phospho-Raf1 (S43) Recombinant Rabbit Monoclonal Antibody [SD087-05]**

Product number: **ET1612-75**

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 Subtance:
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/m³	10 mg/m³ TWA 15 mg/m³ Ceiling

Chemical Name	Denmark (TWA)	Finland OEL (TWA)	France OEL (VME)
Glycerin 56-81-5	None	None	10 mg/m³

Chemical Name	Germany OEL (TWA)	Ireland (TWA)	Italy OEL (TWA)
Glycerin 56-81-5	200 mg/m³ 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/m³ TWA	10 mg/m³ TWA	10 mg/m³

Chemical Name	Sweden - Occupational Exposure Limits - TLVs (LLVs)	Switzerland	United Kingdom
Glycerin 56-81-5	None	100 mg/m³ STEL 50 mg/m³ TWA	10 mg/m³ 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.

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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 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