

Safety Data Sheet

Revision date 17-Jun-2024

Version 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code EG15312
Product name Recombinant Proteinase K

Company/undertaking identification

Jiangsu Yugong Biotech Co., Ltd.
 Building E, International Pharmaceutical Innovation Industrial Park,
 28 Yuehu Road, Lianyungang Area,
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For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards identification

GHS Classification

Signal Word DANGER

Hazard pictograms



Health hazards

Respiratory sensitization	Category 1
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Physical hazards Not Hazardous

Environmental hazards Not Hazardous

Hazard Statements H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary Statements

Prevention	P261 - Avoid breathing dust/fume/gas/mist/vapors/spray; P284 - In case of inadequate ventilation wear respiratory protection
Response	P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing; P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor
Storage	Not Applicable
Disposal	P501 - Dispose of contents/ container to an approved waste disposal plant

Other hazards

Not Applicable

HMIS

Health	4
Flammability	0
Reactivity	0

SECTION 3: Composition/information on ingredients

Chemical name	CAS No.	Weight-%
Proteinase K	39450-01-6	95-100%

We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Rinse skin with water. Immediate medical attention is not required.
Ingestion	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
Note to physicians	Treat symptomatically.

Most important symptoms and effects, both acute and delayed

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Indication of any immediate medical attention and special treatment needed

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing media**

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Unsuitable extinguishing media

No information available.

Special hazards arising from the substance or mixture

No information available.

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

Environmental precautions

No special environmental precautions required

Methods and material for containment and cleaning up

Pick up and transfer to properly labeled containers.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.

Storage Conditions

Store at -25°C to -15°C

Specific end use(s)

For research use only.

SECTION 8: Exposure controls/personal protection

Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Proteinase K	None	None	None	None

Chemical Name	Brazil - OEL - TWAs (LTs)	Brazil - OEL - Ceilings	Brazil - OEL - Skin Designations
Glycerol	None	None	None

Exposure Limits

Contains no substances with occupational exposure limit values.

Engineering measures

Ensure adequate ventilation, especially in confined areas

Exposure controls

Personal Protective Equipment

Respiratory protection

In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection

Tight sealing safety goggles

Skin and Body Protection

Wear suitable protective clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	powder
Color	White
Odor	No data
Molecular Weight	No data
Melting point / melting range	No data
Boiling point / boiling range	No data
Flammability (solid, gas)	No data

Lower explosion limit	No data
Upper explosion limit	No data
Flash point	No data
Autoignition Temperature	No data
Decomposition temperature	No data
pH	No data
Evaporation rate	No data
Viscosity	No data
Solubility	No data
Partition coefficient: n-octanol/water	No data
Vapor Pressure	No data
Specific gravity	No data
Relative density	No data
Vapor density	No data
Explosive properties	No data
Oxidizing properties	No data
Particle characteristics	No data

Other information

Information with regard to physical hazard classes

No information available

Other safety characteristics

No information available

SECTION 10: Stability and reactivity

Reactivity	None known.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous reaction has not been reported.
Conditions to avoid	No information available.
Incompatible materials	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products	None under normal use conditions.

SECTION 11: Toxicological information

Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
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Proteinase K	No data available	No data available	No data available
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Principal Routes of Exposure

Acute toxicity	Data are conclusive but insufficient for classification.
Skin corrosion/irritation	Skin irritation.
Serious eye damage/irritation	Irritating to eyes.
Respiratory or skin sensitization	May cause sensitization by inhalation and skin contact.
Specific target organ toxicity (STOT)–single exposure	Data are conclusive but insufficient for classification.
Specific target organ toxicity (STOT)–repeated exposure	Data are conclusive but insufficient for classification.
Carcinogenicity	Data are conclusive but insufficient for classification.
Germ cell mutagenicity	Data are conclusive but insufficient for classification.
Reproductive toxicity	Data are conclusive but insufficient for classification.
Aspiration hazard	Data are conclusive but insufficient for classification.

SECTION 12: Ecological information

Toxicity

Hazardous to the Aquatic Environment.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Microtox Data	log Pow
Proteinase K	No data available	No data available	No data available	No data available	No data available

Mobility in soil	No information available.
Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Results of PBT and vPvB assessment	No information available.
Other adverse effects	No information available

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulation

UN number or ID number	Not Applicable
UN proper shipping name	Not Applicable
Transport hazard class(es)	Not Applicable
Packing group	Not Applicable

Environmental hazards Not Hazardous

Special precautions for user Not Applicable

Maritime transport in bulk according to IMO instruments

Not Applicable

SECTION 15: Regulatory information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

D2A - Very toxic materials

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations – Brazil

Chemical Name	CAS No.	Brazil - National Agency for Sanitary Surveillance (ANVISA)	Brazil - National List of Carcinogen Agents to Humans (LINACH)
Proteinase K	39450-01-6	Not Listed	Not Listed

SECTION 16: Other information
References

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

Abbreviations and acronyms

TWA - Time-Weighted Average

OELs - Occupational Exposure Limits

STEL - Short Term Exposure Limit

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

KECL - Korean Existing and Evaluated Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

EPA - Environmental Protection Agency

OSHA - Occupational Safety and Health Administration of the US Department of Labor

IATA - International Air Transport Association

DOT - Department of Transportation

IMDG - International Maritime Dangerous Goods

ACGIH - American Conference of Governmental Industrial Hygienists

NIOSH - National Institute for Occupational Safety and Health

AIHA - American Industrial Hygiene Association

HMIS - Department of Defense Hazardous Materials Information System

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with

the product as described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet