

## Safety Data Sheet

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

#### Identification of the substance or mixture

Product code AM2546  
Product name Proteinase K

#### Company/undertaking identification

Thermo Fisher Scientific Baltics UAB  
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Lithuania  
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Fax.: +370 5 2602142

Life Technologies  
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Burlington, ONT  
CANADA L7L 6A4  
800/263-6236

**24 hour Emergency Response for Hazardous Materials** Within the USA + Canada: 1-800-424-9300 and  
[or Dangerous Goods] Incident. Spill, Leak, Fire,  
Exposure, or Accident. Call CHEMTREC 1-703-527-3887  
Outside the USA + Canada: 1-703-741-5970

#### **Country Specific Emergency Number (if available):**

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
Skin sensitization	Category 1

**Physical hazards**

Not classified

**Environmental hazards**

Not classified

**Hazard Statements**

H317 - May cause an allergic skin reaction

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

**Precautionary Statements****Prevention**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P284 - In case of inadequate ventilation wear respiratory protection

P272 - Contaminated work clothing should not be allowed out of the workplace

**Response**

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

P362 + P364 - Take off contaminated clothing and wash it before reuse

**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.	Common name	EC No.	Weight-%
Proteinase K	39450-01-6	Not applicable	254-457-8	>1 - <10

We recommend handling all chemicals with caution.

## SECTION 4: First aid measures

### Description of first aid measures

<b>Skin contact</b>	Rinse skin with water. Immediate medical attention is not required.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Ingestion</b>	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
<b>Inhalation</b>	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
<b>Notes to Physician</b>	Treat symptomatically.

### Most important symptoms and effects, both acute and delayed

H317 - May cause an allergic skin reaction 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. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wear protective gloves/protective clothing and eye/face protection.

## SECTION 5: Firefighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
<b>Unsuitable extinguishing media</b>	No information available.

**Special hazards arising from the substance or mixture** Not known

**Hazardous Combustion Products** None under normal use conditions.

**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

Soak up with inert absorbent material.

### 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.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

### Storage Conditions

Store at -25°C to -15°C

### Specific end use(s)

Research Use Only. Not for use in diagnostic procedures.

## SECTION 8: Exposure controls/personal protection

### Control parameters

#### Exposure Limits

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
Proteinase K	None	None	None

#### 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

<b>Physical state</b>	liquid	
<b>Color</b>	No data	
<b>Odor</b>	No data	
<b>Molecular Weight</b>	No data	
<b>Melting point / melting range</b>	°C No data	°F No data
<b>Boiling point / boiling range</b>	°C No data	°F No data
<b>Flammability (solid, gas)</b>	No data	
<b>Lower explosion limit</b>	No data	
<b>Upper explosion limit</b>	No data	
<b>Flash point</b>	°C No data	°F No data
<b>Autoignition Temperature</b>	°C No data	°F No data
<b>Decomposition temperature</b>	°C No data	°F No data
<b>Evaporation rate</b>	No data	
<b>Viscosity</b>	No data	
<b>Solubility</b>	No data	
<b>Partition coefficient:</b>	No data	
<b>n-octanol/water</b>		
<b>Vapor Pressure</b>	No data	
<b>Specific gravity</b>	No data	
<b>Relative density</b>	No data	
<b>Vapor density</b>	No data	
<b>Explosive properties</b>	No data	
<b>Oxidizing properties</b>	No data	
<b>Particle characteristics</b>	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

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

## SECTION 11: Toxicological information

### Information on toxicological effects

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Proteinase K	No data available	No data available	No data available

### Principal Routes of Exposure

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

## SECTION 12: Ecological information

### Toxicity

The environmental impact of this product has not been fully investigated.

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

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**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 according to 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 classified as dangerous in the meaning of transport regulations

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

### Environmental hazards

Not Applicable

### Special precautions for user

Not Applicable

### Maritime transport in bulk according to IMO instruments

Not Applicable.

## SECTION 15: Regulatory information

Component	US TSCA
Proteinase K 39450-01-6 ( >=1 - <10 )	-

### 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**

**Reason for revision** SDS sections updated.

**Revision number** 8

**Revision date** 21-Mar-2024

For research use only. Not for use in diagnostic procedures.

**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**