

**Material Safety Data Sheet**  
**Version No.: 7.0 (Rev. date: 2022-12-01)****Proteinase K**

---

**1. Product and company identification**

---

- A. Product Name: Proteinase K
- B. Recommended Use: Research Use Only
- C. Supply Information
  - Company: Bioneer
  - Address: 8-11, Munpyeongseo-ro, Daedeok-gu, Daejeon 306-220, Republic of Korea
  - Emergency telephone number: +82-42-930-8777

---

**2. Hazards identification**

---

- A. Classification of the substance or mixture
  - Skin corrosion/irritation (Category 2)
  - Serious eye damage/eye irritation (Category 2)
  - Respiratory sensitization (Category 1)

- B. Label elements

- Hazard pictograms



- Signal word

Danger

- Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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

- Precautionary statements

Prevention :

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

P264 Wash the contact area thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

P284 Wear respiratory protection.

Response :

P302+P352 If on skin, wash with plenty of soap and water.

P304+P340 If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment.

P332+P313 If skin irritation occurs, get medical advice/attention.

P337+P313 If eye irritation persists, get medical advice/attention.

P342+P311 If experiencing respiratory symptoms, call a poison center/doctor.

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

Disposal :

P501 Dispose of contents and container according to wastes control act.

C. Hazards – Other hazards which do not result in classification – Hazard Risk

Not applicable

### 3. Composition/information on ingredients

Chemical name	Synonyms	CAS No.	Weight (%)
Proteinase K		39450-01-6	> 95%

### 4. First aid measures

A. First-aid measures after eye contact

Rinse eyes with water as a precaution.

Remove contact lenses.

B. First-aid measures after skin contact

Wash skin with plenty of water.

Take off immediately all contaminated clothing.

C. First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing.

D. First-aid measures after ingestion

Call a poison center or a doctor if you feel unwell.

E. Other medical advice or treatment

Treat symptomatically.

### 5. Fire-fighting measures

A. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, dry powder, foam, carbon dioxide.

Unsuitable extinguishing media: No data available

- 
- B. Special hazards arising from the substance or mixture

No data available

- C. Special protective equipment and precautions for fire-fighters

Protection during firefighting:

Do not attempt to take action without suitable protective equipment.

Self-contained breathing apparatus.

Complete protective clothing.

---

## 6. Accidental release measures

---

- A. Personal precautions, protective equipment and emergency procedures

Ventilate spillage area.

Do not attempt to take action without suitable protective equipment.

Dispose of materials or solid residues at an authorized site.

- B. Environmental precautions and protective procedures

Avoid release to the environment.

- C. Methods and material for containment and cleaning up

Mechanically recover the product.

---

## 7. Handling and storage

---

- A. Precautions for safe handling

- Precautions for safe handling

Ensure good ventilation of the work station.

Wear personal protective equipment.

- Hygiene measures

Do not eat, drink or smoke when using this product.

Always wash hands after handling the product.

- B. Conditions for safe storage

- Storage conditions

Store in a well-ventilated place.

Keep cool.

---

## 8. Exposure controls / personal protection

---

- A. Occupational Exposure Limits

No data available

- B. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

- C. Personal protection
-

---

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment

Eye protection: Safety glasses

Hand protection: Protective gloves

Skin and body protection: Wear suitable protective clothing

---

## 9. Physical and chemical properties

---

- A. Appearance: Solid
  - B. Odor: No data available
  - C. Odor threshold: No data available
  - D. pH: No data available
  - E. Melting / freezing point: No data available / Not applicable
  - F. Initial boiling point and boiling range: No data available
  - G. Flash point: Not applicable
  - H. Evaporation rate: No data available
  - I. Flammability (solid, gas): Non flammable
  - J. Upper / lower flammability or explosive limits: Not applicable
  - K. Vapor pressure: No data available
  - L. Solubility: Solubility in water: No data available
  - M. Vapor density: No data available
  - N. Relative density: No data available
  - O. Partition coefficient n-octanol/water: No data available
  - P. Auto-ignition temperature: Not applicable
  - Q. Decomposition temperature: No data available
  - R. Viscosity: No data available
  - S. Molecular mass: No data available
- 

## 10. Stability and Reactivity

---

- A. Chemical stability and Possibility of hazardous reactions  
The product is non-reactive under normal conditions of use, storage and transport.  
Stable under normal conditions.  
No dangerous reactions known under normal conditions of use.
  - B. Conditions to avoid  
None under recommended storage and handling conditions.
  - C. Incompatible materials  
No data available
  - D. Hazardous decomposition products  
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
-

---

## 11. Toxicological information

---

### A. Information on exposure routes

Oral: Not classified

Skin and eyes contact: Not classified

Inhalation: Not classified

### B. Health hazards

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

Skin corrosion/irritation: Causes skin irritation

Serious eye damage/irritation: Causes serious eye irritation

Respiratory sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin sensitization: Not classified

Carcinogenicity: Not classified

Mutagenicity: Not classified

Reproductive toxicity: Not classified

STOT–single exposure: Not classified

STOT–repeated exposure: Prolonged or repeated exposure can cause Asthma

Aspiration hazard: Not classified

---

## 12. Ecological information

---

### A. Exotoxicity

Ecology – general: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute): Not classified

Hazardous to the aquatic environment, long-term (chronic): Not classified

### B. Persistence and degradability

No data available

### C. Bioaccumulative potential

No data available

### D. Mobility in soil

No data available

---

- E. Other adverse effects  
 Ozone: Not classified  
 Other adverse effects: No additional information available

13. Disposal considerations

- A. Disposal method  
 Dispose of contents/container in accordance with licensed collector's sorting instructions.
- B. Disposal precaution  
 No data available

14. Transport information

UN RTDG	ADR	IMDG	IATA
A. UN number			
Not regulated for transport			
B. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
C. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
D. Packaging group			
Not applicable	Not applicable	Not applicable	Not applicable
E. Marine pollutant			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

- F. Special precautions for user: No data available

15. Regulatory information

- A. Occupational Safety and Health Act  
 Hazardous Substances Prohibited for Manufacturing: Not applicable  
 Hazardous Substances Requiring Permission: Not applicable  
 Threshold Limit Values Chemicals: Not applicable  
 Hazardous Substances Below Permissible Level: Not applicable  
 Hazardous Substances Subject to Working Environment Measurement: Not applicable  
 Hazardous Substances Subject to Workers Requiring Health Examination: Not applicable  
 Hazardous Substances Subject to Control: Not applicable  
 Substance Subject to PSM Submission: Not applicable

- 
- B. Chemicals Control Act
    - Toxic Chemicals: Not applicable
    - Prohibited Chemicals: Not applicable
    - Restricted Chemicals: Not applicable
    - Substance requiring preparation for accidents: Not applicable
  - C. ACT ON REGISTRATION, EVALUATION, ETC. OF CHEMICALS (K-REACH)
    - Korea Existing Chemicals Inventory (KECI): Not applicable
    - Priority Existing Chemical ('PEC') – subject to registration: Not applicable
    - Priority Control Substances (Korea): Not applicable
    - CMR Substances (Korea): Not applicable
  - D. Safety Control of Dangerous Substances Act
    - Safety Control of Dangerous Substances Act: Not applicable
  - E. Wastes Control Act
    - Hazardous Substances in Designated wastes: Not applicable
    - Types of wastes: No data available
  - F. Other Domestic and International Regulatory Information
    - Domestic
      - Persistent Organic Pollutants(POPs) Control Act: Not applicable
      - Ozone Depleting Substances(ODS): Not applicable
    - International (EU Regulatory Information)
      - EU Candidate list (SVHC): Contains no substance on the REACH candidate list
      - EU authorization list (REACH Annex XIV): Contains no REACH Annex XIV substances
      - EU restriction list (REACH Annex XVII): Not applicable
    - US Regulatory Information
      - CERCLA Section 103 (40CFR302.4): Not applicable
      - EPCRA Section 302 (40CFR355.30): Not applicable
      - EPCRA Section 304 (40CFR355.40): Not applicable
      - EPCRA Section 313 (40CFR372.65): Not applicable
    - International agreements
      - No data available

---

## 16. Other information

Bioneer Corporation makes no warranty or representation to its completeness, accuracy or currency. This material is intended for use by persons with pertinent technical skills and at their discretion and risk. It is the responsibility of the user to determine the product's suitability for its intended use, the product's safe use, and the product's proper disposal. Disposal of hazardous material may be subject to federal, state or local laws or regulations.

---