

**proteinase K**

version number: GHS 1.0

date of compilation: 2020-03-24

**SECTION 1: Identification**

**1.1 product identifier**

trade name **proteinase K**

**1.2 relevant identified uses of the substance or mixture and uses advised against**

relevant identified uses for research use only, not for use in diagnostic or therapeutic procedures.

**1.3 details of the supplier of the safety data sheet**

Diagenode SA  
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3  
4102 Seraing  
Belgium

telephone: +32 4 364 20 50  
e-mail: info@diagenode.com

**1.4 emergency telephone number**

emergency information service +32 4 364 20 50  
this number is only available during the following of-  
fice hours: Mon-Fri 09:00 AM - 05:00 PM

| poison center |  |                |
|---------------|--|----------------|
| country       | name   | telephone      |
|               | American Association of Poison Control Centers | 1-800-222-1222 |

**SECTION 2: Hazard(s) identification**

**2.1 classification of the substance or mixture**

classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

| section | hazard class              | category | hazard class and category | hazard statement |
|---------|---------------------------|----------|---------------------------|------------------|
| A.4R    | respiratory sensitization | 1        | Resp. Sens. 1             | H334             |

for full text of abbreviations: see SECTION 16.

**2.2 label elements**

labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- signal word **danger**

- pictograms

GHS08



- hazard statements

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

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- precautionary statements
  - P261 avoid breathing dust/fume/gas/mist/vapors/spray.
  - P285 in case of inadequate ventilation wear respiratory protection.
  - P304+P341 if inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
  - P342+P311 if experiencing respiratory symptoms: Call a poison center/doctor.
  - P501 dispose of contents/container to industrial combustion plant.
- hazardous ingredients for labelling Proteinase, tritirachium album serine

### 2.3 other hazards

results of PBT and vPvB assessment  
this mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 substances

not relevant (mixture)

### 3.2 mixtures

description of the mixture

| name of substance                     | identifier           | wt% | classification acc. to GHS   | pictograms |
|---------------------------------------|----------------------|-----|--|------------|
| Proteinase, tritirachium album serine | CAS No<br>39450-01-6 | 2   | Skin Irrit. 2 / H315<br>Eye Irrit. 2 / H319<br>Resp. Sens. 1A / H334 |            |

for full text of abbreviations: see SECTION 16.

## SECTION 4: First-aid measures

### 4.1 description of first-aid measures

general notes

do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. Never give anything by mouth.

following inhalation

if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

following skin contact

wash with plenty of soap and water.

following eye contact

remove contact lenses, if present and easy to do. Continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

following ingestion

rinse mouth with water (only if the person is conscious). do NOT induce vomiting.

### 4.2 most important symptoms and effects, both acute and delayed

symptoms and effects are not known to date.

### 4.3 indication of any immediate medical attention and special treatment needed

none

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### SECTION 5: Fire-fighting measures

#### 5.1 extinguishing media

suitable extinguishing media

water spray, BC-powder, carbon dioxide (CO<sub>2</sub>)

unsuitable extinguishing media

water jet

#### 5.2 special hazards arising from the substance or mixture

#### 5.3 advice for firefighters

in case of fire and/or explosion do not breathe fumes. coordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.

### SECTION 6: Accidental release measures

#### 6.1 personal precautions, protective equipment and emergency procedures

for non-emergency personnel

remove persons to safety.

for emergency responders

wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

#### 6.2 environmental precautions

keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

#### 6.3 methods and material for containment and cleaning up

advice on how to contain a spill

covering of drains

advice on how to clean up a spill

wipe up with absorbent material (e.g. cloth, fleece). collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

appropriate containment techniques

use of adsorbent materials.

other information relating to spills and releases

place in appropriate containers for disposal. ventilate affected area.

#### 6.4 reference to other sections

personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 precautions for safe handling

recommendations

- measures to prevent fire as well as aerosol and dust generation

use local and general ventilation. use only in well-ventilated areas.

advice on general occupational hygiene

wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

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**7.2 conditions for safe storage, including any incompatibilities**

control of the effects  
protect against external exposure, such as  
frost

**7.3 specific end use(s)**

see section 16 for a general overview.

**SECTION 8: Exposure controls/personal protection**

**8.1 control parameters**

this information is not available.

**8.2 exposure controls**

appropriate engineering controls  
general ventilation.

individual protection measures (personal protective equipment)

eye/face protection  
wear eye/face protection.

skin protection

- hand protection

wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- other protection measures

take recovery periods for skin regeneration. preventive skin protection (barrier creams/ointments) is recommended. wash hands thoroughly after handling.

respiratory protection

in case of inadequate ventilation wear respiratory protection.

environmental exposure controls

use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.

**SECTION 9: Physical and chemical properties**

**9.1 information on basic physical and chemical properties**

**appearance**

|                |           |
|----------------|-----------|
| physical state | liquid    |
| color          | colorless |
| odor           | odorless  |

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**other safety parameters**

|   |   |
|---|---|
| pH (value)                              | not determined                                |
| melting point/freezing point            | not determined                                |
| initial boiling point and boiling range | not determined                                |
| flash point                             | not determined                                |
| evaporation rate                        | not determined                                |
| flammability (solid, gas)               | not relevant, (fluid)                         |
| explosive limits                        | not determined                                |
| vapor pressure                          | not determined                                |
| density                                 | not determined                                |
| vapor density                           | this information is not available             |
| relative density                        | information on this property is not available |
| solubility(ies)                         | not determined                                |

partition coefficient

|                             |                                   |
|-----------------------------|-----------------------------------|
| - n-octanol/water (log KOW) | this information is not available |
| auto-ignition temperature   | not determined                    |
| viscosity                   | not determined                    |
| explosive properties        | none                              |
| oxidizing properties        | none                              |

|                              |                                    |
|------------------------------|------------------------------------|
| <b>9.2 other information</b> | there is no additional information |
|------------------------------|------------------------------------|

**SECTION 10: Stability and reactivity**

**10.1 reactivity**

concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

**10.2 chemical stability**

see below "Conditions to avoid".

**10.3 possibility of hazardous reactions**

no known hazardous reactions.

**10.4 conditions to avoid**

there are no specific conditions known which have to be avoided.

**10.5 incompatible materials**

there is no additional information.

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### 10.6 hazardous decomposition products

reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 information on toxicological effects

test data are not available for the complete mixture.

classification procedure

the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

#### **classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)**

acute toxicity

shall not be classified as acutely toxic.

skin corrosion/irritation

shall not be classified as corrosive/irritant to skin.

serious eye damage/eye irritation

shall not be classified as seriously damaging to the eye or eye irritant.

respiratory or skin sensitization

may cause allergy or asthma symptoms or breathing difficulties if inhaled.

germ cell mutagenicity

shall not be classified as germ cell mutagenic.

carcinogenicity

shall not be classified as carcinogenic.

reproductive toxicity

shall not be classified as a reproductive toxicant.

specific target organ toxicity - single exposure

shall not be classified as a specific target organ toxicant (single exposure).

specific target organ toxicity - repeated exposure

shall not be classified as a specific target organ toxicant (repeated exposure).

aspiration hazard

shall not be classified as presenting an aspiration hazard.

## SECTION 12: Ecological information

### 12.1 toxicity

shall not be classified as hazardous to the aquatic environment.

### 12.2 persistence and degradability

data are not available.

### 12.3 bioaccumulative potential

data are not available.

### 12.4 mobility in soil

data are not available.

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### 12.5 results of PBT and vPvB assessment

data are not available.

### 12.6 other adverse effects

data are not available.

## SECTION 13: Disposal considerations

### 13.1 waste treatment methods

sewage disposal-relevant information

do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.

waste treatment of containers/packages

completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

#### remarks

please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

- |      |   |   |
|------|---|---|
| 14.1 | <b>UN number</b>  | not subject to transport regulations                                  |
| 14.2 | <b>UN proper shipping name</b>  | not assigned  |
| 14.3 | <b>transport hazard class(es)</b>   | not assigned  |
| 14.4 | <b>packing group</b>  | not assigned  |
| 14.5 | <b>environmental hazards</b>  | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 | <b>special precautions for user</b>                                       | there is no additional information.                                   |
| 14.7 | <b>transport in bulk according to Annex II of MARPOL and the IBC Code</b> | the cargo is not intended to be carried in bulk.                      |

### Information for each of the UN Model Regulations

#### **transport of dangerous goods by road or rail (49 CFR US DOT)**

not subject to transport regulations.

#### **International Maritime Dangerous Goods Code (IMDG)**

not subject to IMDG.

#### **International Civil Aviation Organization (ICAO-IATA/DGR)**

not subject to ICAO-IATA.

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**SECTION 15: Regulatory information**

**15.1 safety, health and environmental regulations specific for the product in question  
national regulations (United States)**

**VOC content**

Regulated Volatile Organic Compounds (VOC-EPA): Regulated Volatile Organic Compounds (VOC-Cal ARB):

**industry or sector specific available guidance(s)**

**NPCA-HMIS® III**

Hazardous Materials Identification System. American Coatings Association.

| category            | rating | description  |
|---------------------|--------|--|
| Chronic             | *      | chronic (long-term) health effects may result from repeated overexposure   |
| Health              | 0      | no significant risk to health  |
| Flammability        | 0      | material that will not burn under typical fire conditions  |
| Physical hazard     | 0      | material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive |
| Personal protection | -      |  |

**NFPA® 704**

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

| category       | degree of hazard | description   |
|----------------|------------------|---|
| Flammability   | 0                | material that will not burn under typical fire conditions   |
| Health         | 0                | material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material |
| Instability    | 0                | material that is normally stable, even under fire conditions  |
| Special hazard |                  |   |

**15.2 Chemical Safety Assessment**

chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information, including date of preparation or last revision**

**abbreviations and acronyms**

| abbr.         | descriptions of used abbreviations   |
|---------------|--|
| 49 CFR US DOT | 49 CFR U.S. Department of Transportation   |
| Cal ARB       | California Air Resources Board   |
| CAS           | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)   |
| DGR           | Dangerous Goods Regulations (see IATA/DGR)   |
| EPA           | Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment |
| Eye Dam.      | Seriously damaging to the eye  |
| Eye Irrit.    | Irritant to the eye  |



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| abbr.          | descriptions of used abbreviations  |
|----------------|---|
| GHS            | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations     |
| IATA           | International Air Transport Association   |
| IATA/DGR       | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO           | International Civil Aviation Organization   |
| IMDG           | International Maritime Dangerous Goods Code   |
| MARPOL         | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")             |
| NPCA-HMIS® III | National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition |
| OSHA           | Occupational Safety and Health Administration (United States)   |
| PBT            | Persistent, Bioaccumulative and Toxic   |
| Resp. Sens.    | Respiratory sensitization   |
| RTECS          | Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)           |
| Skin Corr.     | Corrosive to skin   |
| Skin Irrit.    | Irritant to skin  |
| VOC            | Volatile Organic Compounds  |
| vPvB           | Very Persistent and very Bioaccumulative  |

### key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### classification procedure

physical and chemical properties: the classification is based on tested mixture.

health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### list of relevant phrases (code and full text as stated in chapter 2 and 3)

| code | text   |
|------|--|
| H315 | Causes skin irritation.  |
| H319 | Causes serious eye irritation.   |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |

### disclaimer

this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.