Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 06/23/2008 Reviewed on 05/09/2008

1 Identification of substance

· **Product details**

· **Trade name: Proteinase K**

· **Manufacturer/Supplier:**
QIAGEN GmbH, QIAGEN Str. 1, 40724 Hilden, Germany
Tel.: (+49)-2103/29-0

· **Information department:**
QIAGEN Technical Service
QIAGEN Inc., 27220 Turnberry Lane, Valencia, CA 91355, USA
Tel.: 1-800-DNA-PREP (1-800-362-7737)
Email: techservice-us@qiagen.com

· **Emergency information:**
Poison Information Center Mainz, Germany
Tel.: +49-6131-19240 / 24 h

2 Composition/Data on components

· **Chemical characterization:**
· **CAS No. Description**
39450-01-6 Proteinase, Tritirachium album serine
· **Identification number(s)**
· **EINECS Number:** 254-457-8

3 Hazards identification

· **Hazard description:**
Harmful
· **Information pertaining to particular dangers for man and environment:**
Irritating to eyes, respiratory system and skin.
May cause sensitization by inhalation and skin contact.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**
Health = 1
Fire = 0
Reactivity = 0
· **WHMIS-ratings (scale 0 - 4)**
Health = 1
Fire = 0
Reactivity = 0

4 First aid measures

· **After inhalation:** Supply fresh air and to be sure call for a doctor.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Immediately call a doctor.

5 Fire fighting measures

· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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· **Protective equipment:** Do not inhale explosion gases or combustion gases.

6 Accidental release measures

· **Person-related safety precautions:** Ensure adequate ventilation
· **Measures for environmental protection:**
Prevent seepage into sewage system, workpits and cellars.
· **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

7 Handling and storage

· **Handling:**
· **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
· **Information about protection against explosions and fires:** No special measures required.

· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls and personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Protection of hands:** Protective gloves
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:** Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

Form:	Fluid
Color:	Colorless
Odor:	Characteristic

· **Change in condition**
Melting point/Melting range: Undetermined.

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Boiling point/Boiling range:	Undetermined.
· **Flash point:**	Not applicable.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Density:**	Not determined.
· **Solubility in / Miscibility with Water:**	Fully miscible.

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Dangerous reactions** Reacts with acids, alkalis and oxidizing agents.
· **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.

12 Ecological information

· **General notes:** Generally not hazardous for water

13 Disposal considerations

· **Product:**
· **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **DOT regulations:**
· **Hazard class:** -

· **Land transport ADR/RID (cross-border):**
· **ADR/RID class:** -

· **Maritime transport IMDG:**
· **IMDG Class:** -
· **Marine pollutant:** No

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· **Air transport ICAO-TI and IATA-DGR:**
· **ICAO/IATA Class:** -

15 Regulations

· **Sara**
· **Section 313 (Specific toxic chemical listings):**
Substance is not listed.
· **TSCA (Toxic Substances Control Act):**
· **Proposition 65**
· **Chemicals known to cause cancer:**
Substance is not listed.
· **Chemicals known to cause reproductive toxicity for females:**
Substance is not listed.
· **Chemicals known to cause reproductive toxicity for males:**
Substance is not listed.
· **Chemicals known to cause developmental toxicity:**
Substance is not listed.

· **Cancerogenity categories**
· **EPA (Environmental Protection Agency)**
Substance is not listed.
· **IARC (International Agency for Research on Cancer)**
Substance is not listed.
· **NTP (National Toxicology Program)**
Substance is not listed.
· **TLV (Threshold Limit Value established by ACGIH)**
Substance is not listed.
· **MAK (German Maximum Workplace Concentration)**
Substance is not listed.
· **NIOSH-Ca (National Institute for Occupational Safety and Health)**
Substance is not listed.
· **OSHA-Ca (Occupational Safety & Health Administration)**
Substance is not listed.

· **Product related hazard informations:**
The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**
Harmful

· **Risk phrases:**
Irritating to eyes, respiratory system and skin.
May cause sensitization by inhalation and skin contact.

· **Safety phrases:**
Do not breathe gas/fumes/vapour/spray.
Avoid contact with skin.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing and gloves.

· **National regulations:**

· **Water hazard class:** Generally not hazardous for water.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.