Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 06/23/2008 Reviewed on 05/14/2008

1 Identification of substance

· **Product details**

· **Trade name: PreAnalytiX Protease**

· **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**
9014-01-1 Subtilisin
· **Identification number(s)**
· **EINECS Number:** 232-752-2
· **EU Number:** 647-012-00-8

3 Hazards identification

· **Hazard description:**
Harmful
· **Information pertaining to particular dangers for man and environment:**
Irritating to respiratory system and skin.
Risk of serious damage to eyes.
May cause sensitization by inhalation.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**
Health = 2
Fire = 0
Reactivity = 0
· **WHMIS-ratings (scale 0 - 4)**
Health = *2
Fire = 0
Reactivity = 0

4 First aid measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **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:**
CO_2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Person-related safety precautions:** Ensure adequate ventilation
· **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
· **Measures for cleaning/collecting:** Dispose contaminated material as waste according to item 13.

7 Handling and storage

· **Handling:**
· **Information for safe handling:**
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
· **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.

CAS No. Designation of material	%	Type	Value Unit
9014-01-1 Subtilisin			
ACGIH TLV C			0.00006 mg/m³ (m)

· **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:	Solid
Color:	White

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Odor: Odorless

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

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Product is not flammable.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined.

· **Solubility in / Miscibility with Water:** Soluble.

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:** Danger of toxic pyrolysis products.

11 Toxicological information

· **Acute toxicity:**
· **LD/LC50 values that are relevant for classification:**

9014-01-1 Subtilisin

Oral LD50 2000 mg/kg (rat)
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Strong irritant with the danger of severe eye injury.
· **Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.

12 Ecological information

· **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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.

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14 Transport information

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

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

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

· **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):**
9014-01-1 Subtilisin
· **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:**
Observe the general safety regulations when handling chemicals.
The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**
Harmful

· **Risk phrases:**
Irritating to respiratory system and skin.
Risk of serious damage to eyes.
May cause sensitization by inhalation.

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· **Safety phrases:**
Do not breathe dust.
Avoid contact with skin.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing, gloves and eye/face protection.
If swallowed, seek medical advice immediately and show this container or label.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly 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.