1 Identification of substance

- Product details
  - Trade name: QIAGEN 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:
  - CHEMTREC
    - USA & Canada 1-800-424-9300
    - Outside USA & Canada +1 703-527-3887

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:
  - CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Trade name: QIAGEN Protease

6 Accidental release measures

- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/surface or ground water.
- **Measures for cleaning/collecting:**
  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:**
  - **CAS No.**
  - **Designation of material**
  - **%**
  - **Type**
  - **Value**
  - **Unit**
    - 9014-01-1 Subtilisin
      - 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 skin.
    - 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 breakthrough 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
  - **Odor:** Odorless
- **Change in condition**
  - **Melting point/Melting range:** Undetermined.
Trade name: QIAGEN Protease

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:
  - LD/LC50 values that are relevant for classification:
    Oral LD50 2000 mg/kg (rat)
    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.

14 Transport information

- DOT regulations: -
- Hazard class: -
Trade name: QIAGEN Protease

- **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:** The product has been classified and marked in accordance with directives on hazardous materials.

- **Hazard symbols:** Hazardous materials.

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

- **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.
Trade name: QIAGEN Protease

- National regulations:
- Technical instructions (air):  
  - Class Share in %  
    - I 50-100
- 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.