<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC5005</td>
<td>Proteinase K (PK) Solution</td>
</tr>
</tbody>
</table>

Components:

<table>
<thead>
<tr>
<th>Product code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC500</td>
<td>Proteinase K Solution, 20mg/ml</td>
</tr>
</tbody>
</table>
1 Identification

Product identifier
Trade name: Proteinase K Solution, 20mg/ml

Article number: MC500
Application of the substance / the mixture For Laboratory Use

Details of the supplier of the safety data sheet
Manufacturer/Supplier:
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Information department:
SDS author: ChemicalRegulatory@promega.com
Promega Corporation
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.
1-800-356-9526 or (608)-274-4330

Emergency telephone number:
For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

Classification of the substance or mixture

GHS08 Health hazard

Resp. Sens. 1  H334  May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Label elements
GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms

GHS08

Signal word Danger

Hazard-determining components of labeling:
Proteinase, Tritirachium album serine

(Contd. on page 2)
Trade name: Proteinase K Solution, 20mg/ml

Hazard statements
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements
Avoid breathing dust/fume/gas/mist/vapors/spray
[In case of inadequate ventilation] wear respiratory protection.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a poison center/doctor.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
NFPA ratings (scale 0 - 4)
Health = 2
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = 2
Fire = 1
Reactivity = 0

OSHA Hazard Overview (Criteria according to 29CFR1910.1200):
Irritant
Sensitizer

Primary route(s) of entry: Inhalation
Target Organ(s): May cause Kidney damage (Nephrotoxin)

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description:
The product is made up of a mixture of non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components:

<table>
<thead>
<tr>
<th>Component ID</th>
<th>Component Name</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-81-5</td>
<td>glycerol</td>
<td>25-50%</td>
</tr>
<tr>
<td>39450-01-6</td>
<td>Proteinase, Tritirachium album serine</td>
<td>1-5%</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed risk phrases refer to section 15.

4 First-aid measures

Description of first aid measures
After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If the patient feels unwell or is concerned, obtain medical advice.

Information for doctor:
Most important symptoms and effects, both acute and delayed Allergic reactions
**Trade name:** Proteinase K Solution, 20mg/ml

**Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

### 5 Fire-fighting measures

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

**Special hazards arising from the substance or mixture**
- None known
  - No further relevant information available.

**Advice for firefighters**
- No special advice

### 6 Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
- Remove persons from danger area.
- Wear protective clothing.

**Environmental precautions:**
- Dilute with plenty of water.
- Do not allow to enter sewers/surface or ground water.

**Methods and material for containment and cleaning up:**
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Dispose contaminated material as waste according to Section 13.
- Ensure adequate ventilation.

**Reference to other sections**
- See Section 7 for information on safe handling.
- See Section 13 for disposal information.

### 7 Handling and storage

**Handling:**
- **Precautions for safe handling**
  - Keep receptacles tightly sealed.
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
  - Work only in fume cabinet.

**Information about protection against explosions and fires:** Keep respiratory protective device available.

**Conditions for safe storage, including any incompatibilities**

**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:** None.
- **Specific end use(s)** No further relevant information available.
8 Exposure controls/personal protection

Control parameters

Components with limit values that require monitoring at the workplace:
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

<table>
<thead>
<tr>
<th>56-81-5 glycerol</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL Long-term value: 15* 5** mg/m³ mist; *total dust **respirable fraction</td>
</tr>
<tr>
<td>TLV TLV withdrawn-insufficient data human occup. exp.</td>
</tr>
</tbody>
</table>

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

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.
Do not eat or drink while working.

Breathing equipment:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:
Protective gloves
Select the glove material considering penetration time, rate of diffusion and degradation time.
It is recommended that the selected protective gloves be tested and approved under NIOSH or EU Directive 89/686/EEC and the standard EN 374 derived from it.

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Eye protection:
Safety glasses
Use equipment for eye protection tested and approved under government NIOSH standards.

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information
Appearance:
Form: Fluid
Color: Colorless
Odor: Not determined
Odor threshold: Not determined.

pH-value at 20 °C (68 °F): 7.2

Change in condition
Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.
Flash point: > 100 °C (> 212 °F)
Trade name: Proteinase K Solution, 20mg/ml

### 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

_Thermal decomposition / conditions to be avoided:_ No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials** No further relevant information available.

**Hazardous decomposition products** No dangerous decomposition products known.

### 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

LD/LC50 values that are relevant for classification: No data available

**Primary irritant effect:**

_on the skin:_ No data available.
_on the eye:_ No data available.

**Sensitization:** Sensitization possible through inhalation.

**Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

_Harmful_
12 Ecological information

**Toxicity**
- **Aquatic toxicity:**
  - Not available
- **Persistence and degradability:**
  - Not available
- **Bioaccumulative potential:**
  - Not known
- **Mobility in soil:** Not further relevant information available.
- **Ecotoxicological effects:**
  - Remark: Not available
- **Additional ecological information:**
  - **General notes:** No data available.
  - **Results of PBT and vPvB assessment**
    - **PBT:** Not applicable.
    - **vPvB:** Not applicable.
  - **Other adverse effects:** No further relevant information available.

13 Disposal considerations

**Waste treatment methods**
- **Recommendation:**
  - Disposal should be in accordance with applicable regional, national and local laws and regulations.
  - Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.
- **Uncleaned packaging:**
  - **Recommendation:** Disposal must be made according to official regulations.
  - **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

<table>
<thead>
<tr>
<th><strong>UN-Number</strong></th>
<th>Not hazardous for transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOT, ADR, ADN, IMDG, IATA</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>DOT, ADR, ADN, IMDG, IATA</strong></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
Transport hazard class(es)  None
DOT, ADR, ADN, IMDG, IATA
Class  Not applicable
Packing group  None
DOT, ADR, IMDG, IATA
Class  Not applicable
Environmental hazards:
Marine pollutant:  No
Special precautions for user  Not applicable.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  Not applicable.
UN "Model Regulation":  Not applicable

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara
Section 355 (extremely hazardous substances):
None of the ingredients are listed.
Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.
TSCA (Toxic Substances Control Act) Inventory:
56-81-5 glycerol
Hazardous Air Pollutants
None of the ingredients are listed.
Proposition 65
Chemicals known to cause cancer:
None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
Cancerogenity categories
EPA (Environmental Protection Agency)
None of the ingredients are listed.
TLV (Threshold Limit Value established by ACGIH)
None of the ingredients are listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients are listed.
GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
Signal word Danger
Hazard-determining components of labeling:
Proteinase, Tritirachium album serine

Hazard statements
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements
Avoid breathing dust/fume/gas/mist/vapors/spray
[In case of inadequate ventilation] wear respiratory protection.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a poison center/doctor.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

Department issuing SDS:
Promega Corporation
Chemical Regulatory Department
2800 Woods Hollow Road
Madison, WI
Ph:(608)274-4330

Date of preparation / last revision 11/23/2020 / 1.0

Abbreviations and acronyms:
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Resp. Sens. 1: Respiratory sensitisation – Category 1

* Data compared to the previous version altered.