14.01.2024 **Kit components**

Product code	Description
MC5008	**Proteinase K (PK) Solution**

Components:

MC500	Proteinase K Solution

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.01.2024 *Version number 13.0* *Revision: 12.01.2024*

*
SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name: Proteinase K Solution
Article number: MC500

1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.
Application of the substance / the preparation: Laboratory chemicals

1.3 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
SDS author: chemicalregulatory@promega.com

Further information obtainable from:
Promega UK
2 Benham Road
Southampton Science Park
Chilworth Southampton
Hampshire SO16 7QJ
Tel: (44) 23 8076 0225
Fax: 0800 181 037
Freephone: 0800 378994
E-mail Address: ukcustserve@promega.com

1.4 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). Within UK +(44)-870-8200418.

*
SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008



health hazard

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

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008
The product is classified and labelled according to the GB CLP regulation.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.01.2024 *Version number 13.0* *Revision: 12.01.2024*

Trade name: Proteinase K Solution

(Contd. of page 1)

Hazard pictograms



GHS08

Signal word *Danger*

Hazard-determining components of labelling:
Proteinase, Tritirachium album serine
Hazard statements
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P284 [In case of inadequate ventilation] wear respiratory protection.
P304+P340 IF INHALED: 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 in accordance with local/regional/national/international regulations.
2.3 Other hazards
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*

*
SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description:
The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances.

Components:		
CAS: 56-81-5 *EINECS: 200-289-5*	*glycerol* *substance with a Community workplace exposure limit*	*25-50%*
CAS: 39450-01-6 *EINECS: 254-457-8*	*Proteinase, Tritirachium album serine* *Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319*	*1-5%*

Additional information: *For the wording of the listed hazard phrases refer to section 15*

*
SECTION 4: First aid measures

4.1 Description of first aid measures
General information: *Take affected persons out into the fresh air.*
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.*
4.2 Most important symptoms and effects, both acute and delayed *Allergic reactions*
4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.01.2024 *Version number 13.0* *Revision: 12.01.2024*

Trade name: Proteinase K Solution

(Contd. of page 2)

*
SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
5.2 Special hazards arising from the substance or mixture
None known
No further relevant information available.
5.3 Advice for firefighters *No special advice.*

*
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Remove persons from danger area.
Wear protective clothing.
6.2 Environmental precautions:
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
6.3 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.
6.4 Reference to other sections
See Section 7 for information on safe handling
See Section 13 for disposal information.

*
SECTION 7: Handling and storage

7.1 Precautions for safe handling
Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Work only in fume cupboard.
Information about fire - and explosion protection: *Keep respiratory protective device available.*

7.2 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.*
7.3 Specific end use(s) *No further relevant information available.*

*
SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Additional information about design of technical facilities: *No further data; see section 7.*

Ingredients with limit values that require monitoring at the workplace:	
56-81-5 glycerol	
WEL	*Long-term value: 10 mg/m³*

Additional information: *The lists valid during the making were used as basis.*

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.01.2024 *Version number 13.0* *Revision: 12.01.2024*

Trade name: Proteinase K Solution

(Contd. of page 3)

8.2 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.
Respiratory protection:
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Protection of hands:
Use gloves, classified under Standard EN374, which are chemically resistant to this material in the event of contact. When prolonged or repeated contact may occur, EN 374 recommends gloves with a break time of more than 240 minutes. When only a short contact is expected, gloves with a head length of more than 60 minutes are considered sufficient.
Despite the simple approach in Section 8.2.2.2 (b) (i) of UK REACH, the thickness of the gloves alone is not a good indicator of the level of protection provided by gloves against a chemical substance as the level of protection provided depends also very much on. the specific composition of the material from which the glove is made.
Material of gloves:
Gloves impermeable to the specific chemical substance.
Please observe the instructions regarding permeability and breakthrough time which are provided by the manufacturer/supplier of the gloves. Ensure gloves are suitable for the task which includes, but is not limited to, chemical compatibility, dexterity, operational conditions, user susceptibility, e.g., sensitization effects. Consider specific local conditions under which the product is used such as the danger of cuts and abrasion. Remove gloves with care to avoid skin contamination.

The selection of suitable gloves depends not only on the material, but also on additional quality marks and varies from manufacturer to manufacturer. Because the product is a preparation for some substances, the resistance of the glove material cannot be calculated in advance so it must be checked before application.
Eye protection:
Safety glasses
Use equipment for eye protection tested and approved under government NIOSH standards.

*
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:

Form:	*Fluid*
Colour:	*Colourless*
Odour:	*Not determined*
Odour threshold:	*Not determined.*
pH-value at 20 °C:	*6.9-7.4*
Change in condition	
Melting point/freezing point:	*undetermined*
Initial boiling point and boiling range:	*100 °C*
Flash point:	*160 °C*
Flammability (solid, gaseous)	*Not applicable.*
Auto-ignition temperature:	*400 °C*

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.01.2024 *Version number 13.0* *Revision: 12.01.2024*

Trade name: Proteinase K Solution

(Contd. of page 4)

Decomposition temperature:	*Not determined.*
Ignition temperature:	*Product is not selfigniting.*
Explosive properties:	*Product does not present an explosion hazard.*
Explosion limits:	
Lower:	*0.9 Vol %*
Upper:	*0.0 Vol %*
Vapour pressure at 20 °C:	*<0.1 hPa*
Vapour pressure at 50 °C:	*~0 hPa*
Density at 20 °C:	*1.119 g/cm³*
Relative density	*Not determined.*
Vapour density	*Not determined.*
Evaporation rate	*Not determined.*
Solubility in / Miscibility with	
Water:	*Fully miscible*
Partition coefficient: n-octanol/water:	*Not determined.*
Viscosity:	
dynamic:	*Not determined.*
kinematic:	*Not determined.*
Solvent separation test	
Organic solvents:	*50.0 %*
Water:	*47.9 %*
Solids content:	*2.1 %*
9.2 Other information	*No further relevant information available.*

*
SECTION 10: Stability and reactivity

10.1 Reactivity *No further relevant information available.*
10.2 Chemical stability
Thermal decomposition / conditions to be avoided: *No decomposition if used according to specifications.*
10.3 Possibility of hazardous reactions *No dangerous reactions known*
10.4 Conditions to avoid *No further relevant information available.*
10.5 Incompatible materials: *No further relevant information available.*
10.6 Hazardous decomposition products: *No dangerous decomposition products known*

*
SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity *Based on available data, the classification criteria are not met.*

LD/LC50 values relevant for classification:		
56-81-5 glycerol		
Oral	*LD50*	*1,200 mg/kg (Rat)*

Primary irritant effect:
Skin corrosion/irritation *Based on available data, the classification criteria are not met.*
Serious eye damage/irritation *Based on available data, the classification criteria are not met.*
Respiratory or skin sensitisation
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

(Contd. of page 5)

Additional toxicological information:
CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity *Based on available data, the classification criteria are not met.*
Carcinogenicity *Based on available data, the classification criteria are not met.*
Reproductive toxicity *Based on available data, the classification criteria are not met.*
STOT-single exposure *Based on available data, the classification criteria are not met.*
STOT-repeated exposure *Based on available data, the classification criteria are not met.*
Aspiration hazard *Based on available data, the classification criteria are not met.*

*
SECTION 12: Ecological information

12.1 Toxicity
Aquatic toxicity: *Not harmful to the aquatic environment*
12.2 Persistence and degradability:
Not available
No further relevant information available.
12.3 Bioaccumulative potential
Not known
No further relevant information available.
12.4 Mobility in soil *No further relevant information available.*
Ecotoxical effects:
Remark: *Not available*
12.5 Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
12.6 Other adverse effects *No further relevant information available.*

*
SECTION 13: Disposal considerations

13.1 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 agents: *Water, if necessary together with cleansing agents.*

*
SECTION 14: Transport information

14.1 UN-Number	*Not hazardous for transportation*
ADR, ADN, IMDG, IATA	*Not applicable*
14.2 UN proper shipping name	*None*
ADR, ADN, IMDG, IATA	*Not applicable*
14.3 Transport hazard class(es)	*None*
ADR, IMDG, IATA	
Class	*Not applicable*

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.01.2024 *Version number 13.0* *Revision: 12.01.2024*

Trade name: Proteinase K Solution

(Contd. of page 6)

ADN	
ADN/R Class:	*Not applicable* *Not regulated*
14.4 Packing group	*None*
ADR, IMDG, IATA	*Not applicable*
14.5 Environmental hazards:	
Marine pollutant:	*No*
14.6 Special precautions for user	*Not applicable.*
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	*Not applicable.*
UN "Model Regulation":	*Not applicable*

*
SECTION 15: Regulatory information

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

Regulated explosives precursors
None of the ingredients is listed.

Regulated poisons
None of the ingredients is listed.

Reportable explosives precursors
None of the ingredients is listed.

Reportable poisons
None of the ingredients is listed.

Directive 2012/18/EU
Named dangerous substances - ANNEX I *None of the ingredients is listed.*

Classification according to VbF: *Not applicable*

Class	Share in %
Wasser	*47.9*
I	*2.0*
NK	*50.0*

Waterhazard class: *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
15.2 Chemical safety assessment: *A Chemical Safety Assessment has not been carried out.*

*
SECTION 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.

Relevant phrases
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.01.2024 *Version number 13.0* *Revision: 12.01.2024*

Trade name: Proteinase K Solution

(Contd. of page 7)

Department issuing SDS:
Promega Corporation
Chemical Regulatory Affairs
2800 Woods Hollow Road
Madison, WI 53711
U.S.A.

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 relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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)
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1