



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 20.11.2018

Revision: 15.05.2018

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

1.1 Product identifier

Trade name: PK Solution / Protease Solution

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:

LGC Genomics GmbH
Ostendstr. 25 • TGS Haus 8
12459 Berlin • Germany
Tel. +49 (0)30 5304 2200
Fax. +49 (0)30 5304 2201
Email: kits@lgcgroup.com

Further information obtainable from: Business Unit Nucleic Acid Preparation

1.4 Emergency telephone number:

Giftinformationszentrum Mainz / Poison Information Center Mainz, Germany
Tel.: +49-(0)-6131-19240 / 24 h

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS08 health hazard

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



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements:

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



GHS08

Signal word: Danger

Hazard-determining components of labelling:

proteinase

Hazard statements:

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

H317 May cause an allergic skin reaction.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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- P280 Wear protective gloves.
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:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 56-81-5	glycerol	25-50%
EINECS: 200-289-5	substance with a Community workplace exposure limit	
CAS: 39450-01-6	proteinase	1-≤2.5%
EINECS: 254-457-8	⚠ Resp. Sens. 1, H334; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	

Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

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:** Call for a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

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.**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture:** No further relevant information available.**5.3 Advice for firefighters:****Protective equipment:**

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

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Ensure adequate ventilation.

6.2 Environmental precautions: 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).

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Keep receptacles tightly sealed.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities:****Storage:****Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.**Information about storage in one common storage facility:** Store away from foodstuffs.**Further information about storage conditions:** None.**7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.**8.1 Control parameters:****Ingredients with limit values that require monitoring at the workplace:****56-81-5 glycerol**WEL Long-term value: 10 mg/m³**8.2 Exposure controls:****Personal protective equipment:****General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter ABEK2-P3

Protection of hands: Protective gloves**Material of gloves:**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.35 mm

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Safety glasses

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties:

General Information:

Appearance:

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.

Change in condition:

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

Flash point: Not applicable.

Flammability (solid, gas): Not applicable.

Decomposition temperature: Not determined.

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure: Not determined.

Density: Not determined.

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not determined.

Solubility in / Miscibility with water:

Soluble.

Partition coefficient: n-octanol/water: Not determined.

Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.

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: Carbon monoxide and carbon dioxide

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SECTION 11: Toxicological information

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

May cause an allergic skin reaction.

CMR effects (carcinogenicity, 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:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

Water hazard class 1 (German Regulation) (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.

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:**European waste catalogue:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number:

ADR, ADN, IMDG, IATA Void

14.2 UN proper shipping name:

ADR, ADN, IMDG, IATA Void

14.3 Transport hazard class(es):

ADR, ADN, IMDG, IATA

Class: Void

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14.4 Packing group:**ADR, IMDG, IATA** Void**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":** Void

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**
REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3**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.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

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

H335 May cause respiratory irritation.

Training hints:

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

Department issuing SDS:

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Contact: Dr. Axel Deeg**Abbreviations and acronyms:**

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

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)

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

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3