

# Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 06.08.2013

Version number 1

Revision: 06.08.2013

## 1 Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Trade name:** Proteinase K - Solution**Article number:** 0888

### Registration number

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

### 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 chemical

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

Carl Roth GmbH + Co. KG  
Schoemperlenstraße 3-5  
76185 Karlsruhe  
Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

E-Mail: [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Further information obtainable from:** Department Health, Safety and Environment

### 1.4 Emergency telephone number:

Poison Centre Munich

Telefon +49/(0)89 19240

## 2 Hazards identification

### 2.1 Classification of the substance or mixture

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

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

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

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.

#### Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 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

(Contd. on page 2)

# Safety data sheet

## according to Regulation (EC) No. 1907/2006



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**Trade name: Proteinase K - Solution**

(Contd. of page 1)

**Hazard-determining components of labelling:**

Proteinase, Triticachium album serine

**Hazard statements**

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

H317 May cause an allergic skin reaction.

**Precautionary statements**

P280 Wear protective gloves / eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

**Additional information:**

-

**2.3 Other hazards**

All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**3 Composition/information on ingredients****3.2 Chemical characterization: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 39450-01-6	Proteinase, Triticachium album serine	1-≤2.5%
EINECS: 254-457-8	Xn R42/43;  Xi R36/37/38	
Index Number: 647-014-00-9	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 risk phrases refer to section 16.**4 First aid measures****4.1 Description of first aid measures****General information:**

Remove any clothing soiled by the product.

**After inhalation:**

Supply fresh air; if there is any trouble seek medical help.

**After skin contact:**

Wash with water and soap.

If skin irritation continues, consult a doctor.

**After eye contact:**

Rinse opened eye for 10 minutes under running water. Then consult a doctor.

**After swallowing:**

Rinse out mouth and drink a glass of water. Do not induce vomiting.

Call for a doctor immediately.

(Contd. on page 3)

# Safety data sheet

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Version number 1

Revision: 06.08.2013

**Trade name: Proteinase K - Solution**

(Contd. of page 2)

**4.2 Most important symptoms and effects, both acute and delayed**

Allergic reactions

Irritations

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

No further relevant information available.

**5 Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**

Use fire extinguishing methods suitable to surrounding conditions.

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**For safety reasons unsuitable extinguishing agents:**

For this substance/mixture no limitations of extinguishing agents are given.

**5.2 Special hazards arising from the substance or mixture**

Ambient fire may liberate hazardous vapours.

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

**5.3 Advice for firefighters****Protective equipment:**

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

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

Do not inhale vapours. Avoid contact with the eyes and skin.

Wear protective clothing.

**6.2 Environmental precautions**

Do not allow to enter sewers/ground water or penetrate the soil.

**6.3 Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. Rotisorb® Art.-Nr. 1710.1).

Dispose of the material collected according to regulations.

**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.

**7 Handling and storage****7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**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:**

No special requirements.

(Contd. on page 4)

# Safety data sheet

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Version number 1

Revision: 06.08.2013

**Trade name: Proteinase K - Solution**

(Contd. of page 3)

**Information about storage in one common storage facility:**

Store away from foodstuffs.

**Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

**Recommended storage temperature:** +4 °C**7.3 Specific end use(s)**

No further relevant information available.

## 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:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:**

The lists valid during the making were used as basis.

**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

**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:****Protective gloves**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**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

(Contd. on page 5)

# Safety data sheet

## according to Regulation (EC) No. 1907/2006



Printing date 06.08.2013

Version number 1

Revision: 06.08.2013

**Trade name: Proteinase K - Solution**

(Contd. of page 4)

application.

**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:**

Tightly sealed goggles

**Body protection:**

Protective work clothing

## 9 Physical and chemical properties

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

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	No information available.

**pH-value:** No information available.

**Change in condition**

<b>Melting point/Melting range:</b>	No information available.
<b>Boiling point/Boiling range:</b>	100 °C

**Flash point:** Undetermined.

**Flammability (solid, gaseous):** No information available

**Ignition temperature:** No information available

**Decomposition temperature:** No information available

**Self-igniting:** No information available

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

**Explosion limits:**

**Lower:** No information available.

**Upper:** No information available.

**Oxidizing properties:** No information available.

**Vapour pressure:** No information available

**Density:**

**Relative density** No Information available.

**Vapour density** No information available

**Evaporation rate** No information available

**Solubility in / Miscibility with water:**

Fully miscible.

**Partition coefficient (n-octanol/water):** No information available

(Contd. on page 6)

# Safety data sheet

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Printing date 06.08.2013

Version number 1

Revision: 06.08.2013

**Trade name: Proteinase K - Solution**

(Contd. of page 5)

**Viscosity:****Dynamic:**

No information available.

**Kinematic:**

No information available.

**9.2 Other information**

No further relevant information available.

## 10 Stability and reactivity

**10.1 Reactivity**

See section 10.3

**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions**

Reacts with acids, alkalis and oxidizing agents.

**10.4 Conditions to avoid**

No information available.

**10.5 Incompatible materials:**

No information available.

**10.6 Hazardous decomposition products:**

In case of fire: see item 5.

## 11 Toxicological information

**11.1 Information on toxicological effects****Acute toxicity:****LD/LC50 values relevant for classification:**

Quantitative data on the toxicity of this product are not available.

**Primary irritant effect:****on the skin:**

Risk of skin sensitization.

**on the eye:**

No irritating effect.

**after inhalation:**

After inhalation of dusts/aerosols:

Irritation symptoms in the respiratory tract.

**Sensitization:**

Sensitization possible through skin contact.

Sensitization possible through inhalation.

**CMR effects:****Germ cell mutagenicity:**

No known significant effects or critical hazards.

**Carcinogenicity:**

No known significant effects or critical hazards.

**Reproductive toxicity:**

No known significant effects or critical hazards.

**Aspiration hazard:**

No aspiration toxicity classification.

(Contd. on page 7)

# Safety data sheet

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Version number 1

Revision: 06.08.2013

**Trade name: Proteinase K - Solution**

(Contd. of page 6)

**Specific target organ toxicity - single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Specific target organ toxicity - repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Additional toxicological information:**

We have no description of any toxic symptoms.

**Further information:**

The product should be handled with the care usual when dealing with chemicals.

## 12 Ecological information

**12.1 Toxicity****Aquatic toxicity:**

Quantitative data on the ecological effect of this product are not 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.

**Ecotoxicological effects:****Remark:**

Do not allow to enter waters, waste water, or soil!

**12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects**

No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods****Recommendation**

This material and its container must be disposed of as hazardous waste.

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

**Uncleaned packaging:****Recommendation:**

Disposal according to official regulations.

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

## 14 Transport information

**14.1 UN-Number**

ADR, ADN, IMDG, IATA

Void

(Contd. on page 8)

# Safety data sheet

## according to Regulation (EC) No. 1907/2006

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Version number 1

Revision: 06.08.2013

**Trade name: Proteinase K - Solution**

(Contd. of page 7)

<b>14.2 UN proper shipping name</b>	
ADR, ADN, IMDG, IATA	Void
<b>14.3 Transport hazard class(es)</b>	
ADR, ADN, IMDG, IATA Class	Void
<b>14.4 Packing group</b>	
ADR, IMDG, IATA	Void
<b>14.5 Environmental hazards:</b>	
Marine pollutant:	No
<b>14.6 Special precautions for user</b>	Not applicable.
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>UN "Model Regulation":</b>	-

## 15 Regulatory information

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

#### National regulations:

**Information about limitation of use:** Employment restrictions concerning juveniles must be observed.

Class	Share in %
I	2.0

#### Waterhazard class:

Generally not hazardous for water (German regulation).

### 15.2 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.

#### 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.

R36/37/38 Irritating to eyes, respiratory system and skin.

R42/43 May cause sensitisation by inhalation and skin contact.

**Department issuing MSDS:** Department: Health, Safety and Environment

**Contact:** Herr Heine

#### 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

(Contd. on page 9)



**Safety data sheet**  
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Version number 1

Revision: 06.08.2013

**Trade name: Proteinase K - Solution**

(Contd. of page 8)

IATA: International Air Transport Association  
GHS: Globally Harmonized 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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
LD50\*: Lethal Dose, 50 percent (Not relevant for classification)  
LD50\*: Lethal Concentration, 50 percent (Not relevant for classification)

GB