

Date of issue: 08.04.2019 Replaces Data Sheet of: 28.08.2018

"*" alterations as compared to previous version; n.ap. = not applicable; n.av. = not available

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade Name: Proteinase S
Article No.: n.av.
Preparation No.: n.av.
Registration No.: n.ap.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Analytics, Diagnostics

1.3 Details of the supplier of the safety data sheet**1.3.1 Address of the Company / Supplier:**

Invitek Molecular GmbH, Robert-Rössle-Straße 10, D - 13125 Berlin
Telephone: +49-30-94 89-3796, Telefax: +49-30-94 89-3795, E-Mail: info@invitek-molecular.com

1.3.2 Responsible for the data sheet:

CoSiChem AG, Ernst-Lemmer-Straße 23, 35041 Marburg, info@cosichem.de

1.4 Emergency telephone number

Emergency - Telephone of Company / Undertaking Information Centre Specialising in Symptoms of
Poisoning
Telephone: +49-30-94 89-3796 (8:00 – 16:00) Telephone: +44 870 600 6266

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Skin Sens. 1; H317 / Eye Dam. 1; H318

2.2 Label elements

Classification according to 1272/2008/EC: Yes.
Applicable Exemptions: Yes.
Signal word(s): Danger
Component(s): contains Subtilisin

Hazard pictogram(s):

**H - Phrases:**

H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.

P - Phrases:

P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Additional Markings:
None.

2.3 Other hazards

This mixture contains no substances which are assessed to be PBT or vPvB.

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SECTION 3: Composition/information on ingredients

3.1 **Substances**
 n.ap.

3.2 **Mixtures**
Chemical Characterisation:
 Aqueous solution

Dangerous Ingredients:

Material	Index - No.	EC - No.	REACH - No.	m% - range
CAS - No. Hazard Code(s) / H - phrases				
Subtilisin 9014-01-1	647-012-00-8	232-752-2	01-2119480434-38-xxxx	5 - 10%
STOT SE 3; H335 / Skin Irrit. 2; H315 / Eye Dam. 1; H318 / Resp. Sens. 1; H334				

Text of H - phrases: see section 16
 m% - range: x - y ≙ x ≥ - < y

SECTION 4: First aid measures

4.1 **Description of first aid measures**

4.1.1 **Inhalation:**
 Move to fresh air in case of accidental inhalation of vapours or decomposition products.
 If symptoms persist, call a physician.

4.1.2 **Skin Contact:**
 Wash off immediately with plenty of water.
 In the case of skin irritation or allergic reactions see a physician.

4.1.3 **Eye Contact:**
 Rinse immediately with plenty of water, also under the eyelids.
 Consult a physician.

4.1.4 **Ingestion:**
 Clean mouth with water and afterwards drink plenty of water.
 Do not induce vomiting.
 Consult a physician for severe cases.

4.2 **Most important symptoms and effects, both acute and delayed**
 n.av.

4.3 **Indication of any immediate medical attention and special treatment needed**
 None.

SECTION 5: Firefighting measures

5.1 **Extinguishing media**

5.1.1 **Suitable Extinguishing Media:**
 Use dry chemical, CO2, water spray or "alcohol" foam.

5.1.2 **Extinguishing Media to Avoid:**
 None.

5.2 **Special hazards arising from the substance or mixture**
 In the event of fire the following can be released: Carbon oxides, Hydrogen chloride gas(HCL).

5.3 **Advice for firefighters**

5.3.1 **Special Protective Equipment:**
 Wear positive pressure self-contained breathing apparatus.
 Wear full protective clothing.

5.3.2 **Additional Information:**
 The product itself does not burn.
 Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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SECTION 6: Accidental release measures

- 6.1 **Personal precautions, protective equipment and emergency procedures**
See chapter 8.2.2
- 6.2 **Environmental precautions**
Do not contaminate water.
Local authorities should be advised if significant spillages cannot be contained.
- 6.3 **Methods and material for containment and cleaning up**
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- 6.4 **Reference to other sections**
None.

SECTION 7: Handling and storage

- 7.1 **Precautions for safe handling**
- 7.1.1 **Precautions for Safe Handling:**
When using, do not eat, drink or smoke.
Avoid contact with skin and eyes.
Wash hands before breaks and at the end of workday.
Take off all contaminated clothing immediately.
- 7.1.2 **Precautions in Case of Fire and Explosion:**
Normal measures for preventive fire protection.
- 7.2 **Conditions for safe storage, including any incompatibilities**
- 7.2.1 **Storage Instructions:**
Keep at temperature not exceeding 30°C.
- 7.2.2 **Store away from:**
Incompatible with oxidizing agents.
- 7.2.3 **Further Information on Storage Conditions:**
None.
- 7.3 **Specific end use(s)**
n.av.

SECTION 8: Exposure controls/personal protection

- 8.1 **Control parameters**

Material	Limit Value
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- 8.2 **Exposure controls**
- 8.2.1 **Appropriate engineering controls**
Keep container tightly closed in a dry and well-ventilated place.
Ensure adequate ventilation, especially in confined areas.
Handle in accordance with good industrial hygiene and safety practice.
- 8.2.2 **Individual protection measures**
- 8.2.2a **Respiratory Protection:** In case of insufficient ventilation wear suitable respiratory equipment.
- 8.2.2b **Hand Protection:** solvent-resistant gloves (butyl-rubber Break through time> 6 h)
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- 8.2.2c **Eye Protection:** safety glasses with side-shields conforming to EN166.
- 8.2.2d **Skin Protection:** protective suit
- 8.2.2e **Further Information:** Observe wearing time limits:
- 8.2.3 **Environmental exposure controls:**
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SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

9.1.1	Form: liquid	Colour: colourless	Odour: characteristic
			Odour threshold: n.av.
9.1.2	pH-value, undiluted:	n.av.	
	pH-value, 1% aqueous solution:	n.av.	
9.1.3	Boiling point / Boiling - range (°C):	n.av., Melting point / Melting range (°C): n.av.	
9.1.4	Flash point (°C):	n.ap., closed cup	
9.1.5	Flammability:	n.ap.	
9.1.6	Ignition temperature (°C):	n.ap.	
9.1.7	Autoflammability:	n.av.	
9.1.8	Oxidising properties:	None.	
9.1.9	Explosion hazard:	None.	
9.1.10	Explosion limits (Vol.%) lower:	None., upper: None.	
9.1.11	Vapour pressure:	n.av.	
	Vapour density (Air = 1):	n.ap.	
9.1.12	Density (g/ml):	n.av.	
9.1.13	Solubility (in Water):	miscible	Soluble in:
9.1.14	Partition coefficient, n-Octanol / Water:	n.av.	
9.1.15	Viscosity:	n.av.	
9.1.16	Solvent content (m %):	n.ap.	
9.1.17	Thermal decomposition (°C):	n.av.	
9.1.18	Evaporation rate:	n.av.	
9.2	Other information		
	n.av.		

SECTION 10: Stability and reactivity

10.1	Reactivity None.
10.2	Chemical stability Stable under normal conditions.
10.3	Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
10.4	Conditions to avoid Keep away from heat.
10.5	Incompatible materials Incompatible with oxidizing agents.
10.6	Hazardous decomposition products No decomposition if used as directed. To avoid thermal decomposition, do not overheat.

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SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Acute Health Effects:

Inhalation: n.av.

Ingestion: n.av.

Skin Contact: n.av.

Skin corrosion / irritation: n.av.

Serious eye damage / irritation: Causes serious eye damage.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: n.av.

Carcinogenicity: n.av.

Reproductive toxicity: n.av.

STOT-single exposure: n.av.

STOT-repeated exposure: n.av.

Aspiration hazard: n.av.

11.1.1 – Practical Experience

11.1.11 n.av.

11.1.12 Practical Experience

Observations relevant for classification:

None.

Further Observations:

None.

Classification of the preparation has been done by calculation in accordance with EEC directives.

SECTION 12: Ecological information**12.1 Toxicity**

This product has no known eco-toxicological effects.

12.2 Persistence and degradability

The product is highly volatile and can be largely eliminated from the water by stripping.

12.3 Bioaccumulative potential

May cause long-term adverse effects in the aquatic environment.

12.4 Mobility in soil

n.av.

12.5 Results of PBT and vPvB assessment

This mixture contains no substances which are assessed to be PBT or vPvB.

12.6 Other adverse effects

12.6.1 COD-Value, mg/g: n.av.

12.6.2 BOD5-Value, mg/g: n.av.

12.6.3 AOX-Remarks: n.av.

12.6.4 Significant Components: None.

12.6.5 Other adverse effects: None.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

13.1.1 Recommendation: R 2 / D 10

Waste - Code - No.: 07 07 99

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

In addition comply with the regional authorities.

13.2 Contaminated Packaging

13.2.1 Recommendation: Wash with suitable cleaner. Otherwise as described under Residues. Offer rinsed packaging material to local recycling facilities.

13.2.2 Safe Handling: As described under Residues. Handle in accordance with good industrial hygiene and safety practice.

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SECTION 14: Transport information

	ADR	IMDG	IATA
	Not classified as dangerous in the meaning of transport regulations.	Not classified as dangerous in the meaning of transport regulations.	Not classified as dangerous in the meaning of transport regulations.
14.1	UN number		
14.2	UN proper shipping name		
14.3	Transport hazard class(es)		
14.4	Packing group		
14.5	Environmental hazards		
14.6	Special precautions for user		
	Transport category: Classification Code: Hazard - No.: LQ:		Packing Instructions (Passenger) Packing Instructions (Cargo)
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code		

SECTION 15: Regulatory information

- 15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**
n.av.
- 15.2 **Chemical safety assessment :**
n.ap.

SECTION 16: Other information

Text of H phrases mentioned in Section 3

- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335: May cause respiratory irritation.

This datasheet has been compiled in accordance with EU regulation 2015/830.

The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. They must neither be altered nor transferred to other products.

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