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

### **1.1. Product identifier**

# **Ubiquitin VHH, recombinant binding protein**

**CAS No.:**  
**EC No.:**  
**INDEX No.:**  
**REACH No.:**

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

**Relevant identified uses:** Laboratory use  
**Uses advised against:** Other

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

#### **Manufacturer**

ChromoTek GmbH

Am Klopferspitz 19  
D 82152 Planegg-Martinsried

**Telephone:** +49 89 124 148 80  
**Telefax:** +49 89 124 148 811

#### **Supplier (manufacturer/importer/only representative/downstream user/distributor)**

ChromoTek GmbH

Am Klopferspitz 19  
D 82152 Planegg-Martinsried

**Telephone:** +49 89 124 148 80  
**Telefax:** +49 89 124 148 811

#### **Information contact**

ChromoTek GmbH

**Information telephone:** +49 89 124 148 80  
**Information telefax:** +49 89 124 148 811  
**E-mail (competent person):** info@chromotek.com  
**Website:** http://www.chromotek.com/

#### **Dept. responsible for information:**

ChromoTek GmbH

### **1.4. Emergency telephone number**

Giftnotrufzentrale München

**Telephone:** +49 89 19 240

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## **SECTION 2: Hazards identification**

### **2.1. Classification of the substance or mixture**

Regulation (EC) No 1272/2008: -

### **2.2. Label elements**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms:** -

Signal word: -  
Hazard statements: -  
Precautionary statements: -

#### Labeling

Hazardous component(s) for labelling

-

#### Special labelling of particular preparations

Safety data sheet available for professional user on request.

### 2.3. Other hazards

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

## SECTION 3: Composition / information on ingredients

### 3.1. Substances

not applicable

### 3.2. Mixtures

Ubiquitin VHH, recombinant binding protein is a mixture.

#### Composition/information on ingredients

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008(CLP):
Sodium azide	247-852-1	26628-22-8	011-004-00-7	01-2119457019-37-0000	< 0,1 % (v/v)	Acute Tox. 2; H300 Acute Tox. 2; H310 STOT RE 2; H373 Aqu. Acute 1; H400 Aqu. Chron. 1; H410 -; EUH032

(Full text of H- and EUH-phrases: see section 16.)

#### Additional information

none

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information:** In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**Following inhalation:** No special measures are necessary. Seek medical attention if problems persist.

**Following skin contact:** After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

**After eye contact:** In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Seek medical attention if problems persist.

**After ingestion:** Rinse mouth immediately and drink plenty of water. Seek medical attention if problems persist.

### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms:** No known symptoms to date.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes for the doctor:** No special measures are necessary.

**Special treatment:** No special measures are necessary.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:** Water fog. alcohol resistant foam. dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media:** High power water jet.

### 5.2. Special hazards arising from the substance or mixture

Pyrolysis products, toxic. Carbon dioxide. Carbon monoxide.

### 5.3. Advice for firefighters

#### General information

Co-ordinate fire-fighting measures to the fire surroundings.

#### Special protective equipment for firefighters:

In case of fire: Wear self-contained breathing apparatus.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Remove persons to safety. Provide adequate ventilation.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### 6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Avoid generation of dust. Clear contaminated areas thoroughly. Wash with plenty of water.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advices on safe handling

Avoid contact with skin and eyes.

#### Precautions against fire and explosion

Usual measures for fire prevention.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

### Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

**Storage class:** 10-13

## 7.3. Specific end use(s)

Observe instructions for use.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### occupational exposure limit value

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:
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#### Substance with a common (EC) occupational exposure limit value

Substance:	CAS-No.:	Source:	Occupational exposure limit value:	Limitation of exposure peaks:	Remark:
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#### DNEL-/PNEC-values

##### DNEL value

Substance:	CAS-No.:	DNEL/DMEL	Industry	Professional	consumer
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##### PNEC Value

Substance:	CAS-No.:	PNEC	Worker, industry	Worker, professional	consumer
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#### Risk management measures according to used control banding approach

none

#### Additional information

none

### 8.2. Exposure controls

#### Occupational exposure controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

#### General protection and hygiene measures

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Apply skin care products after work. Wash contaminated clothing prior to re-use.

#### Personal protection equipment

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

#### Respiratory protection

Respiratory protection not required.

#### Hand protection

Tested protective gloves are to be worn: DIN-/EN-Norms: DIN EN 374

#### Eye/face protection

Tightly sealed safety glasses.

#### Body protection

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual

working clothes). Only wear fitting, comfortable and clean protective clothing. Barrier creams are not substitutes for body protection.

#### Environmental exposure controls

refer to chapter 7. No further action is necessary.

#### Consumer exposure controls

refer to chapter 7. No further action is necessary.

#### Exposure Scenario

none

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

Physical state: liquid  
Colour: clear  
Odour: No data available  
Odour threshold: No data available

#### Safety relevant basis data

	parameter	unit	remark
Density:			No data available
Bulk density:			No data available
pH:		7,5	
Melting point/freezing point:			No data available
Initial boiling point and boiling range:			No data available
Flash point:			No data available
Flammability (solid, gas):			No data available
Explosivity:			No data available
Lower explosion limit:			No data available
Upper explosion limit:			No data available
Ignition temperature:			No data available
Decomposition temperature:			No data available
Oxidizing potential:			Combustible.
Vapour pressure:			not applicable
Vapour density:			not applicable
Evaporation rate:			not applicable
Water solubility:			soluble
Fat solubility:			No data available
Soluble in:	:		No data available
Partition coefficient: n-octanol/water:			No data available
Viscosity:			not applicable
Solvent separation test:			not applicable
Solvent content:			not applicable

### 9.2. Other information

There are no data available on the mixture itself.

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

none

## 10.2. Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

## 10.3. Possibility of hazardous reactions

No data available

## 10.4. Conditions to avoid

heat. UV-radiation/sunlight.

## 10.5. Incompatible materials

Oxidizing agents. Reducing agent. Acid. Alkalis (alkalis).

## 10.6. Hazardous decomposition products

Pyrolysis products, toxic. Carbon monoxide. Carbon dioxide.

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

There are no data available on the mixture itself.

#### Acute toxicity

Substance:	CAS-No.:	Toxicological information
Sodium azide	26628-22-8	Acute toxicity, oral LD50: 27 mg/kg (Rat) Acute toxicity, dermal LD50: 20 mg/kg (Rabbit)

#### Irritation and etching

Irritant effect on the skin  
slightly irritant but not relevant for classification.  
Irritant effect on the eye  
slightly irritant but not relevant for classification.

#### Sensitization

not sensitising.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity  
No indications of human carcinogenicity exist.  
Germ cell mutagenicity  
No indications of human germ cell mutagenicity exist.  
Reproductive toxicity  
No indications of human reproductive toxicity exist.

#### STOT-single exposure

No information available.

#### STOT-repeated exposure

none

Aspiration hazard  
Not an irritant.

## SECTION 12: Ecological information

### 12.1. Toxicity

There are no data available on the mixture itself.

#### Ecotoxicity

Substance:	CAS-No.:	Ecotoxicity
Sodium azide	26628-22-8	Acute fish toxicity LC50: 2,8 mg/l/96 h Acute algae toxicity EC50: 0,48 mg/l/96 h

### 12.2. Persistence and degradability

Product is biodegradable.

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

### 12.6. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Appropriate disposal/Product

Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions. May be disposed of in household waste landfill.

#### Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

#### List of proposed waste codes/waste designations in accordance with EWC

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

**Waste code product:** 18 02 05 - chemicals consisting of or containing dangerous substances

**Waste code packaging:** 15 01 10 - packaging containing residues of or contaminated by dangerous substances

## SECTION 14: Transport information

### 14.1. UN number

UN No.: -

### 14.2. UN proper shipping name

ADR / RID

-

**IMDG / ICAO-TI / IATA-DGR**

-

**14.3. Transport hazard class(es)**

Hazard label(s): -

Classification code: -

**14.4. Packing group**

Packing group: -

**14.5. Environmental hazards**

Environmental hazards: none

**14.6. Special precautions for user**

Land transport (ADR/RID)

Transport category: -

Tunnel restriction code: -

Special provisions: -

Limited quantity (LQ): --

Sea transport (IMDG)

EmS-No: -

Special provisions: -

Limited quantity (LQ): --

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Remark: none

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**SECTION 15: Regulatory information**

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

**EU legislation**

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

none

Regulation (EC) No 2037/2000 concerning materials, which cause damage to the ozone layer.

none

Regulation (EC) No. 648/2004 (Detergents regulation)

none

**National regulations**

Observe in addition any national regulations!

**Restrictions of occupation**

none

**Storage class**

10-13

**Water hazard class (WGK)**

0 not a water pollutant

**Other regulations, restrictions and prohibition regulations**

none



## 15.2. Chemical Safety Assessment

**For this preparation a chemical safety assessment has been carried out:**

Chemical safety assessments for substances in this mixture were not carried out.

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## SECTION 16: Other information

### Relevant H- and EUH-phrases (Number and full text)

#### Hazard statements

EUH032	Contact with acids liberates very toxic gas.
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

#### Training advice

none

#### Recommended restrictions of use

refer to chapter 1.

#### Further remarks

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

#### Documentation of changes

none

#### Key literature references and sources for data

Data arise from reference works and literature.

#### Abbreviations and acronyms

none