



**Safety Data Sheet according to Regulation (EU)
2020/878 (REACH)**

Version: 2
Replaces version: 1

Revision date: 30.09.2024
from: 25.06.2016

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

1.1. Product identifier

**PD-1 VHH, recombinant binding protein for 2x Cys
conjugation (pd1Cys2)**

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

Fraunhoferstr. 1
D 82152 Planegg-Martinsried

Telephone +49 89 124 148 810

Telefax: +49 89 124 148 811

Supplier

ChromoTek GmbH

Fraunhoferstr. 1
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Information contact

ChromoTek GmbH

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E-mail (competent person) germany@ptglab.com

Website <https://www.ptglab.com/>

1.4. Emergency telephone number

Giftnotrufzentrale München

Telephone +49 89 19 240

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:

-

Special labelling of particular preparations:

-

2.3. Other hazards

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP]. This substance / mixture does not contain components in concentrations of 0.1% or higher, which are classified.

SECTION 3: Composition / information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

PD-1 VHH, recombinant binding protein for 2x Cys conjugation (pd1Cys2) is a mixture, among others, the following ingredients and other non-hazardous admixtures in aqueous solution.

Composition/information on ingredients

Substance:	CAS-No.:	REACH-no.:	Concentration:	Classification: EC 1272/2008 (CLP):	M, ATE, Note
Sodium azide	26628-22-8		< 0,1	Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; STOT RE 2, H373; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	M = 1

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: In case of accident or unwellness, seek medical advice immediately

In case of inhalation: Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration. Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position. Consult an ophthalmologist.

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 flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Consult an ophthalmologist.

After ingestion: Rinse mouth immediately and drink plenty of water. Consult an ophthalmologist.

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

No known symptoms to date.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water fog. Carbon dioxide (CO₂). Foam. dry extinguishing powder.
Unsuitable extinguishing media High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: 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 fire-fighters:

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment. Remove persons to safety.

6.2. Environmental precautions

No special environmental protection measures are necessary.

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.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

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

Protect pressurised gas bottles against overturning.

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

No other specific end uses are foreseen other than those mentioned in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

occupational exposure limit value

Substance:	CAS-No.:	Source:	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m³]	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:[ppm]	Occupational exposure limit value:[mg/m³]	Limitation of exposure peaks:	Remark:
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DNEL-/PNEC-values

DNEL value

Substance:	CAS-No.:	DNEL/DMEL
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PNEC Value

Substance:	CAS-No.:	PNEC
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Additional information

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2. Exposure controls

Occupational exposure controls:

Provide adequate ventilation as well as local exhaustion at critical locations.

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

Wear protective gloves/protective clothing and eye/face protection. Only wear fitting, comfortable and clean protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Hand protection

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

Eye/face protection

Tightly sealed safety glasses.

Body protection:

Wear suitable protective clothing.

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state:	Liquid
Colour:	No data available
Odour:	No data available
Odour threshold:	No data available

Safety relevant basis data

	parameter	Value	unit	Remark
Melting point/freezing point:				No data available
Initial boiling point and boiling range:				No data available
Flammability:				No data available
lower flammability or explosive limits:				No data available
Upper flammability or explosive limits:				No data available
Flash point:				No data available
Ignition temperature:				No data available
Decomposition temperature:				No data available
pH:		7,5		
Kinematic viscosity:				No data available
Water solubility (g/L):				
Partition coefficient: n-octanol/water:				No data available
Vapour pressure:				No data available
Density:				No data available
Relative density:				No data available
Particle properties:				No data available

9.2. Other information

none

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures. Contains as stabilizer(s): derivatives of methylisothiazolinone (< 0.0025 wt.-%)

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Heat. UV radiation/sunlight.

10.5. Incompatible materials

Oxidizing agents. Reducing agents. Acids. Alkalis (lyes).

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes within the meaning of Regulation (EC) No. 1272/2008

M-factor: -
Acute toxicity (oral): -

Acute toxicity (dermal): -
Acute toxicity (inhalative): -

Acute toxicity

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

Skin corrosion/irritation:

Frequently or prolonged contact with skin may cause dermal irritation.

Serious eye damage/irritation:

May irritate the eyes

Respiratory or skin sensitisation:

In case of prolonged or frequently repeated skin contact: May cause sensitisation especially in sensitive humans.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity:

No indication of human carcinogenicity.

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:

No information available.

Aspiration hazard

No data available

Additional information

No data available

11.2. Information about other hazards

11.2.1 Endocrine disrupting properties

No known endocrine disrupting properties

11.2.2 Other Information

none

SECTION 12: Ecological information

12.1. Toxicity

No information available.

Ecotoxicity

Substance:	CAS-No.:	Ecotoxicity
Sodium azide	26628-22-8	LC50 Fish (Pimephales promelas) 96 h 2,8 mg/l LC50 (crustaceans, 48h) 9 mg/L EC50 crustaceans (48 h) 5,3 mg/l EC50 (algae, 96 h) 0,348 mg/L

12.2. Persistence and degradability

Product is biodegradable.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

No data available

12.6 Endocrine disruptive effect

No known endocrine disrupting properties

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal/Product:

Dispose of waste according to applicable legislation.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Must not be disposed together with household garbage.

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 according to EWC / AVV

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

SECTION 14: Transport information

14.1. UN number

UN No.: none

14.2. UN proper shipping name

Land transport (ADR/RID)

No dangerous good in sense of these transport regulations.

Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

Hazard label(s) / Label: none

Classification code: / Classification Code: none

14.4. Packing group

Packing group/ Packing Group: none

14.5. Environmental hazards

ADR/RID / IMDG / ICAO-TI / IATA-DGR:
Marine pollutant:

Yes

☐

No

☒
☒

14.6. Special precautions for user

Land transport (ADR/RID)

transport category: none

Special provisions: none

tunnel restriction code: none

Limited quantity (LQ): none

Sea transport (IMDG)

EmS-No: none

Special provisions: none Limited quantity (LQ): none

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

Remark none

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer
not relevant

Regulation (EU) No 649/2012 on the export and import of dangerous chemicals
none

The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.
none

National regulations

Observe in addition any national regulations!

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Solvents Regulation (31st BImSchV)

none

Other regulations, restrictions and prohibition regulations

none

15.2. Chemical Safety Assessment

For this preparation a chemical safety assessment has been carried out.

For this substance a chemical safety assessment is not required.

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.

Documentation of changes:

Update according to current regulations

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

none
