

## H4pan Antibody

version number: GHS 2.0  
replaces version of: 2020-12-03 (GHS 1)

revision: 2023-02-17

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

#### 1.1 product identifier

trade name **H4pan Antibody**  
product code(s) C15410156

#### 1.2 relevant identified uses of the substance or mixture and uses advised against

relevant identified uses for research use only, not for use in diagnostic or therapeutic procedures.

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

Diagenode SA  
LIEGE SCIENCE PARK Rue du Bois Saint-Jean, 3  
4102 Seraing  
Belgium

telephone: +32 4 364 20 50  
e-mail: info@diagenode.com

#### 1.4 emergency telephone number

emergency information service +32 4 364 20 50  
this number is only available during the following of-  
fice hours: Mon-Fri 09:00 AM - 05:00 PM

poison centre		
country	name	telephone
United Kingdom	National Poisons Information Service	111

### SECTION 2: Hazards identification

#### 2.1 classification of the substance or mixture

classification acc. to GHS

section	hazard class	category	hazard class and category	hazard statement
3.4S	skin sensitisation	1	Skin Sens. 1	H317
4.1C	hazardous to the aquatic environment - chronic hazard	2	Aquatic Chronic 2	H411

for full text of abbreviations: see SECTION 16.

the most important adverse physicochemical, human health and environmental effects  
spillage and fire water can cause pollution of watercourses.

#### 2.2 label elements

labelling

- signal word warning

- pictograms  
GHS07, GHS09



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- hazard statements

H317 may cause an allergic skin reaction.  
H411 toxic to aquatic life with long lasting effects.

- precautionary statements

P261 avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 avoid release to the environment.  
P280 wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....  
P333+P313 if skin irritation or rash occurs: Get medical advice/attention.  
P362+P364 take off contaminated clothing and wash it before reuse.  
P391 collect spillage.  
P501 dispose of contents/container to industrial combustion plant.

- hazardous ingredients for labelling proclin 300

### 2.3 other hazards

results of PBT and vPvB assessment

does not contain a PBT-/vPvB-substance in a concentration of  $\geq 0,1\%$ .

endocrine disrupting properties

does not contain an endocrine disruptor (EDC) in a concentration of  $\geq 0,1\%$ .

## SECTION 3: Composition/information on ingredients

### 3.1 substances

not relevant (mixture)

### 3.2 mixtures

description of the mixture

This product is composed of antibodies in aqueous buffer solution. It contains 0.05% sodium azide and 0,05% ProClin™ 300 as preservative.

name of substance	identifier	wt%	classification acc. to GHS	pictograms
proclin 300	CAS No 55965-84-9  index No 613-167-00-5	0.05	Acute Tox. 3 / H301 Acute Tox. 2 / H310 Acute Tox. 2 / H330 Skin Corr. 1C / H314 Eye Dam. 1 / H318 Skin Sens. 1A / H317 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 EUH071	

name of substance	Specific Conc. Limits	M-Factors	ATE	exposure route
proclin 300	Skin Corr. 1C; H314: C $\geq 0.6\%$ Skin Irrit. 2; H315: $0.06\% \leq C < 0.6\%$ Eye Dam. 1; H318: C $\geq 0.6\%$ Eye Irrit. 2; H319: $0.06\% \leq C < 0.6\%$ Skin Sens. 1A; H317: C $\geq 0.0015\%$	M-factor (acute) = 100 M-factor (chronic) = 100	100 mg/kg 50 mg/kg 0.5 mg/l/4h 0.05 mg/l/4h	oral dermal inhalation: vapour inhalation: dust/mist

for full text of abbreviations: see SECTION 16.

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### SECTION 4: First aid measures

#### 4.1 description of first aid measures

##### general notes

do not leave affected person unattended. remove victim out of the danger area. keep affected person warm, still and covered. take off immediately all contaminated clothing. in all cases of doubt, or when symptoms persist, seek medical advice. in case of unconsciousness place person in the recovery position. Never give anything by mouth.

##### following inhalation

if breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. provide fresh air.

##### following skin contact

wash with plenty of soap and water.

##### following eye contact

remove contact lenses, if present and easy to do. Continue rinsing. irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

##### following ingestion

rinse mouth with water (only if the person is conscious). do NOT induce vomiting.

#### 4.2 most important symptoms and effects, both acute and delayed

symptoms and effects are not known to date.

#### 4.3 indication of any immediate medical attention and special treatment needed

none

### SECTION 5: Firefighting measures

#### 5.1 extinguishing media

##### suitable extinguishing media

water spray, BC-powder, carbon dioxide (CO<sub>2</sub>)

##### unsuitable extinguishing media

water jet

#### 5.2 special hazards arising from the substance or mixture

##### hazardous combustion products

nitrogen oxides (NO<sub>x</sub>)

#### 5.3 advice for firefighters

in case of fire and/or explosion do not breathe fumes. co-ordinate firefighting measures to the fire surroundings. do not allow firefighting water to enter drains or water courses. collect contaminated firefighting water separately. fight fire with normal precautions from a reasonable distance.

### SECTION 6: Accidental release measures

#### 6.1 personal precautions, protective equipment and emergency procedures

##### for non-emergency personnel

remove persons to safety.

##### for emergency responders

wear breathing apparatus if exposed to vapours/dust/spray/gases.

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### 6.2 environmental precautions

keep away from drains, surface and ground water. retain contaminated washing water and dispose of it. if substance has entered a water course or sewer, inform the responsible authority.

### 6.3 methods and material for containment and cleaning up

advice on how to contain a spill

covering of drains

advice on how to clean up a spill

wipe up with absorbent material (e.g. cloth, fleece). collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

appropriate containment techniques

use of adsorbent materials.

other information relating to spills and releases

place in appropriate containers for disposal. ventilate affected area.

### 6.4 reference to other sections

hazardous combustion products: see section 5. personal protective equipment: see section 8. incompatible materials: see section 10. disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 precautions for safe handling

recommendations

- measures to prevent fire as well as aerosol and dust generation  
use local and general ventilation. use only in well-ventilated areas.

advice on general occupational hygiene

wash hands after use. do not eat, drink and smoke in work areas. remove contaminated clothing and protective equipment before entering eating areas. never keep food or drink in the vicinity of chemicals. never place chemicals in containers that are normally used for food or drink. keep away from food, drink and animal feedingstuffs.

### 7.2 conditions for safe storage, including any incompatibilities

control of effects

protect against external exposure, such as  
frost

- packaging compatibilities  
only packagings which are approved (e.g. acc. to ADR) may be used.

### 7.3 specific end use(s)

see section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 control parameters

occupational exposure limit values (Workplace Exposure Limits)  
this information is not available

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relevant DNELs of components of the mixture						
name of substance	CAS No	endpoint	threshold level	protection goal, route of exposure	used in	exposure time
proclin 300	55965-84-9	DNEL	0.02 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
proclin 300	55965-84-9	DNEL	0.04 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - local effects

relevant PNECs of components of the mixture						
name of substance	CAS No	endpoint	threshold level	organism	environmental compartment	exposure time
proclin 300	55965-84-9	PNEC	3.39 µg/l	aquatic organisms	freshwater	short-term (single instance)
proclin 300	55965-84-9	PNEC	3.39 µg/l	aquatic organisms	marine water	short-term (single instance)
proclin 300	55965-84-9	PNEC	0.23 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
proclin 300	55965-84-9	PNEC	0.027 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
proclin 300	55965-84-9	PNEC	0.027 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
proclin 300	55965-84-9	PNEC	0.01 mg/kg	terrestrial organisms	soil	short-term (single instance)

### 8.2 exposure controls

appropriate engineering controls

general ventilation.

individual protection measures (personal protective equipment)

eye/face protection

wear eye/face protection.

skin protection

- hand protection

wear suitable gloves. chemical protection gloves are suitable, which are tested according to EN 374. check leak-tightness/impermeability prior to use. in the case of wanting to use the gloves again, clean them before taking off and air them well. for special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- other protection measures

take recovery periods for skin regeneration. preventive skin protection (barrier creams/ointments) is recommended. wash hands thoroughly after handling.

respiratory protection

in case of inadequate ventilation wear respiratory protection.

environmental exposure controls

use appropriate container to avoid environmental contamination. keep away from drains, surface and ground water.

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### SECTION 9: Physical and chemical properties

#### 9.1 information on basic physical and chemical properties

physical state	liquid
colour	colourless
odour	odourless
melting point/freezing point	not determined
boiling point or initial boiling point and boiling range	not determined
flammability	non-combustible
lower and upper explosion limit	not determined
flash point	not determined
auto-ignition temperature	not determined
decomposition temperature	not relevant
pH (value)	not determined
kinematic viscosity	not determined
solubility(ies)	not determined

#### partition coefficient

partition coefficient n-octanol/water (log value)	this information is not available
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vapour pressure	not determined
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#### density and/or relative density

density	not determined
relative vapour density	information on this property is not available

particle characteristics	not relevant (liquid)
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#### 9.2 other information

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information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
other safety characteristics	there is no additional information

### SECTION 10: Stability and reactivity

#### 10.1 reactivity

concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

#### 10.2 chemical stability

see below "Conditions to avoid".

#### 10.3 possibility of hazardous reactions

no known hazardous reactions.

#### 10.4 conditions to avoid

there are no specific conditions known which have to be avoided.

#### 10.5 incompatible materials

there is no additional information.

#### 10.6 hazardous decomposition products

reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. hazardous combustion products: see section 5.

### SECTION 11: Toxicological information

#### 11.1 information on toxicological effects

test data are not available for the complete mixture.

classification procedure

the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

##### classification acc. to GHS

acute toxicity

shall not be classified as acutely toxic.

skin corrosion/irritation

shall not be classified as corrosive/irritant to skin.

serious eye damage/eye irritation

shall not be classified as seriously damaging to the eye or eye irritant.

respiratory or skin sensitisation

may cause an allergic skin reaction.

germ cell mutagenicity

shall not be classified as germ cell mutagenic.

carcinogenicity

shall not be classified as carcinogenic.

reproductive toxicity

shall not be classified as a reproductive toxicant.

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specific target organ toxicity - single exposure  
shall not be classified as a specific target organ toxicant (single exposure).

specific target organ toxicity - repeated exposure  
shall not be classified as a specific target organ toxicant (repeated exposure).

aspiration hazard  
shall not be classified as presenting an aspiration hazard.

### 11.2 information on other hazards

there is no additional information.

## SECTION 12: Ecological information

### 12.1 toxicity

toxic to aquatic life with long lasting effects.

aquatic toxicity (chronic) of components of the mixture					
name of substance	CAS No	endpoint	value	species	exposure time
proclin 300	55965-84-9	LC50	0.07 mg/l	fish	14 d
proclin 300	55965-84-9	EC50	→0.18 mg/l	aquatic invertebrates	21 d
proclin 300	55965-84-9	ErC50	45.6 µg/l	algae	120 h

### 12.2 persistence and degradability

degradability of components of the mixture						
name of substance	CAS No	process	degradation rate	time	method	source
proclin 300	55965-84-9	carbon dioxide generation	38.8 %	29 d		ECHA

### 12.3 bioaccumulative potential

data are not available.

bioaccumulative potential of components of the mixture				
name of substance	CAS No	BCF	log KOW	BOD5/COD
proclin 300	55965-84-9	54	↗-0.34 - ↘0.63 (pH value: 7, 10 °C)	

### 12.4 mobility in soil

data are not available.

### 12.5 results of PBT and vPvB assessment

according to the results of its assessment, this substance is not a PBT or a vPvB. does not contain a PBT-/vPvB-substance in a concentration of ≥ 0,1%.

### 12.6 endocrine disrupting properties

does not contain an endocrine disruptor (EDC) in a concentration of ≥ 0,1%.



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### 12.7 other adverse effects

data are not available.

## SECTION 13: Disposal considerations

### 13.1 waste treatment methods

sewage disposal-relevant information

do not empty into drains. avoid release to the environment. Refer to special instructions/safety data sheets.

waste treatment of containers/packagings

it is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.

#### remarks

please consider the relevant national or regional provisions. waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR/RID	UN 3082
IMDG-Code	UN 3082
ICAO-TI	UN 3082

### 14.2 UN proper shipping name

ADR/RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.
technical name (hazardous ingredients)	sodium azide, proclin 300

### 14.3 transport hazard class(es)

ADR/RID	9
IMDG-Code	9
ICAO-TI	9

### 14.4 packing group

ADR/RID	III
IMDG-Code	III
ICAO-TI	III

### 14.5 environmental hazards

	hazardous to the aquatic environment
environmentally hazardous substance (aquatic environment)	sodium azide, proclin 300

### 14.6 special precautions for user

provisions for dangerous goods (ADR) should be complied within the premises.

### 14.7 maritime transport in bulk according to IMO instruments

the cargo is not intended to be carried in bulk.



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### Information for each of the UN Model Regulations



#### **Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - additional information**

classification code	M6
danger label(s)	9, fish and tree
 	
environmental hazards	yes (hazardous to the aquatic environment)
special provisions (SP)	274, 335, 375, 601
excepted quantities (EQ)	E1
limited quantities (LQ)	5 L
transport category (TC)	3
tunnel restriction code (TRC)	-
hazard identification No	90
Emergency Action Code	3Z

#### **Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) - additional information**

classification code	M6
danger label(s)	9, fish and tree
 	
environmental hazards	yes (hazardous to water)
special provisions (SP)	274, 335, 375, 601
excepted quantities (EQ)	E1
limited quantities (LQ)	5 L
transport category (TC)	3
hazard identification No	90

#### **International Maritime Dangerous Goods Code (IMDG) - additional information**

marine pollutant	yes (hazardous to the aquatic environment) (sodium azide)
danger label(s)	9, fish and tree
 	
special provisions (SP)	274, 335, 969
excepted quantities (EQ)	E1
limited quantities (LQ)	5 L
EmS	F-A, S-F
stowage category	A



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section	former entry (text/value)	actual entry (text/value)	safety-rel- evant
2.2		- pictograms: change in the listing (table)	yes
2.2		- hazard statements: change in the listing (table)	yes
2.2		- precautionary statements: change in the listing (table)	yes
2.3	results of PBT and vPvB assessment: this mixture does not contain any substances that are assessed to be a PBT or a vPvB.	results of PBT and vPvB assessment: does not contain a PBT-/vPvB-substance in a con- centration of $\geq 0,1\%$ .	yes
2.3		endocrine disrupting properties: does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ .	yes
3.2		mixtures: change in the listing (table)	yes
3.2		mixtures: change in the listing (table)	yes
6.2	environmental precautions: keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.	environmental precautions: keep away from drains, surface and ground water. retain contaminated washing water and dispose of it. if substance has entered a water course or sewer, in- form the responsible authority.	yes
7.2		- packaging compatibilities: only packagings which are approved (e.g. acc. to ADR) may be used.	yes
8.1	control parameters: this information is not available.	control parameters: occupational exposure limit values (Workplace Ex- posure Limits) this information is not available	yes
9.1	appearance		yes
9.1	other safety parameters		yes
9.1	flammability (solid, gas): not relevant, (fluid)	flammability: non-combustible	yes
9.1	evaporation rate: not determined		yes
9.1		decomposition temperature: not relevant	yes
9.1		kinematic viscosity: not determined	yes
9.1		density and/or relative density	yes
9.1	vapour density: this information is not available		yes
9.1	viscosity: not determined		yes
9.1	explosive properties: none		yes
9.1	oxidising properties: none		yes

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section	former entry (text/value)	actual entry (text/value)	safety-relevant
9.1		particle characteristics: not relevant (liquid)	yes
9.2	other information: there is no additional information	other information	yes
9.2		information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant	yes
9.2		other safety characteristics: there is no additional information	yes
11.2		information on other hazards: there is no additional information.	yes
12.1	toxicity: shall not be classified as hazardous to the aquatic environment.	toxicity: toxic to aquatic life with long lasting effects.	yes
12.1		aquatic toxicity (chronic) of components of the mixture: change in the listing (table)	yes
12.2	persistence and degradability: data are not available.	persistence and degradability	yes
12.2		degradability of components of the mixture: change in the listing (table)	yes
12.3		bioaccumulative potential of components of the mixture: change in the listing (table)	yes
12.5	results of PBT and vPvB assessment: data are not available.	results of PBT and vPvB assessment: according to the results of its assessment, this substance is not a PBT or a vPvB. does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$ .	yes
12.6	other adverse effects: data are not available.	endocrine disrupting properties: does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$ .	yes
13.1	waste treatment of containers/packagings: completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.	waste treatment of containers/packagings: it is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. completely emptied packages can be recycled. handle contaminated packages in the same way as the substance itself.	yes
14.1	UN number: not subject to transport regulations	UN number or ID number	yes
14.1		ADR/RID: UN 3082	yes
14.1		IMDG-Code: UN 3082	yes
14.1		ICAO-TI: UN 3082	yes
14.2	UN proper shipping name: not relevant	UN proper shipping name	yes
14.2		ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	yes

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14.2		IMDG-Code: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI- QUID, N.O.S.	yes
14.2		ICAO-TI: Environmentally hazardous substance, liquid, n.o.s.	yes
14.2		technical name (hazardous ingredients): sodium azide, proclin 300	yes
14.3	transport hazard class(es): not assigned	transport hazard class(es)	yes
14.3		ADR/RID: 9	yes
14.3		IMDG-Code: 9	yes
14.3		ICAO-TI: 9	yes
14.4	packing group: not assigned	packing group	yes
14.4		ADR/RID: III	yes
14.4		IMDG-Code: III	yes
14.4		ICAO-TI: III	yes
14.5	environmental hazards: non-environmentally hazardous acc. to the danger- ous goods regulations	environmental hazards: hazardous to the aquatic environment	yes
14.5		environmentally hazardous substance (aquatic envi- ronment): sodium azide, proclin 300	yes
14.6	special precautions for user: there is no additional information.	special precautions for user: provisions for dangerous goods (ADR) should be complied within the premises.	yes
14.7	transport of dangerous goods by road, rail and in- land waterway (ADR/RID/ADN): not subject to ADR. not subject to RID.	Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) - additional inform- ation	yes
14.7	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN)		yes
14.7	identifier number: 9006		yes
14.7	proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LI- QUID, N.O.S.		yes
14.7	class: 9		yes
14.7	number of cones/blue lights: 0		yes
14.7		classification code: M6	yes

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14.7		danger label(s): 9, fish and tree	yes
14.7		danger label(s): change in the listing (table)	yes
14.7		environmental hazards: yes (hazardous to the aquatic environment)	yes
14.7		special provisions (SP): 274, 335, 375, 601	yes
14.7		excepted quantities (EQ): E1	yes
14.7		limited quantities (LQ): 5 L	yes
14.7		transport category (TC): 3	yes
14.7		tunnel restriction code (TRC): -	yes
14.7		hazard identification No: 90	yes
14.7		Emergency Action Code: 3Z	yes
14.7		Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) - additional information	yes
14.7		classification code: M6	yes
14.7		danger label(s): 9, fish and tree	yes
14.7		danger label(s): change in the listing (table)	yes
14.7		environmental hazards: yes (hazardous to water)	yes
14.7		special provisions (SP): 274, 335, 375, 601	yes
14.7		excepted quantities (EQ): E1	yes
14.7		limited quantities (LQ): 5 L	yes
14.7		transport category (TC): 3	yes
14.7		hazard identification No: 90	yes
14.7	International Maritime Dangerous Goods Code (IM-DG): not subject to IMDG.	International Maritime Dangerous Goods Code (IM-DG) - additional information	yes
14.7		marine pollutant: yes (hazardous to the aquatic environment) (sodium azide)	yes

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14.7		danger label(s): 9, fish and tree	yes
14.7		danger label(s): change in the listing (table)	yes
14.7		special provisions (SP): 274, 335, 969	yes
14.7		excepted quantities (EQ): E1	yes
14.7		limited quantities (LQ): 5 L	yes
14.7		EmS: F-A, S-F	yes
14.7		stowage category: A	yes
14.7	International Civil Aviation Organization (ICAO-IATA/ DGR): not subject to ICAO-IATA.	International Civil Aviation Organization (ICAO-IATA/ DGR) - additional information	yes
14.7		environmental hazards: yes (hazardous to the aquatic environment)	yes
14.7		danger label(s): 9, fish and tree	yes
14.7		danger label(s): change in the listing (table)	yes
14.7		special provisions (SP): A97, A158, A197, A215	yes
14.7		excepted quantities (EQ): E1	yes
14.7		limited quantities (LQ): 30 kg	yes
15.1		national regulations (GB)	yes
15.1		list of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list: none of the ingredients are listed	yes
15.1		restrictions according to GB REACH, Annex 17	yes
15.1		dangerous substances with restrictions (GB REACH, Annex 17): change in the listing (table)	yes
16		abbreviations and acronyms: change in the listing (table)	yes
16	key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, la- belling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). Interna- tional Maritime Dangerous Goods Code (IMDG). Dan- gerous Goods Regulations (DGR) for the air trans- port (IATA).	key literature references and sources for data: Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations con- cerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Danger- ous Goods Code (IMDG). Dangerous Goods Regula- tions (DGR) for the air transport (IATA).	yes



## H4pan Antibody

version number: GHS 2.0  
replaces version of: 2020-12-03 (GHS 1)

revision: 2023-02-17

section	former entry (text/value)	actual entry (text/value)	safety-relevant
16		list of relevant phrases (code and full text as stated in section 2 and 3): change in the listing (table)	yes

### abbreviations and acronyms

abbr.	descriptions of used abbreviations
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008

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abbr.	descriptions of used abbreviations
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
vPvB	Very Persistent and very Bioaccumulative

### key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### classification procedure

physical and chemical properties: the classification is based on tested mixture.

health hazards, environmental hazards: the method for classification of the mixture is based on ingredients of the mixture (additivity formula).

### list of relevant phrases (code and full text as stated in section 2 and 3)

code	text
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

### disclaimer

this information is based upon the present state of our knowledge. this SDS has been compiled and is solely intended for this product.