

## CRISPR/Cas9 - HRP Antibody 7A9

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

### SECTION 1: Identification

#### 1.1 product identifier

trade name **CRISPR/Cas9 - HRP Antibody 7A9**  
product code(s) C15200215

#### 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 center		
country	name	telephone
United States	American Association of Poison Control Centers	1-800-222-1222

### SECTION 2: Hazard(s) identification

#### 2.1 classification of the substance or mixture

classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)  
this mixture does not meet the criteria for classification.

#### 2.2 label elements

labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)  
not required

#### 2.3 other hazards

of no significance

### 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.

**CRISPR/Cas9 - HRP Antibody 7A9**

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

name of substance	identifier	wt%	classification acc. to GHS	pictograms
Ethane-1,2-diol	CAS No 107-21-1	≤ 45	Acute Tox. 4 / H302	

for full text of abbreviations: see SECTION 16.

**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: Fire-fighting measures**

**5.1 extinguishing media**

suitable extinguishing media

water spray, BC-powder, carbon dioxide (CO2)

unsuitable extinguishing media

water jet

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

hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO2)

**5.3 advice for firefighters**

in case of fire and/or explosion do not breathe fumes. coordinate 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.

## CRISPR/Cas9 - HRP Antibody 7A9

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

### 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 vapors/dust/aerosols/gases.

#### 6.2 environmental precautions

keep away from drains, surface and ground water. retain contaminated washing water and dispose of it.

#### 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 the effects

protect against external exposure, such as

frost

#### 7.3 specific end use(s)

see section 16 for a general overview.

**CRISPR/Cas9 - HRP Antibody 7A9**

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

**SECTION 8: Exposure controls/personal protection**

**8.1 control parameters**

occupational exposure limit values (Workplace Exposure Limits)											
country	name of agent	CAS No	identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Ceiling-C [ppm]	Ceiling-C [mg/m <sup>3</sup> ]	notation	source
US	ethylene glycol	107-21-1	REL							appx-D	NIOSH REL
US	ethylene glycol	107-21-1	TLV®				10			i, aerosol	ACGIH® 2022
US	ethylene glycol	107-21-1	PEL (CA)					40	100	vap	Ca/ OSHA PEL
US	ethylene glycol	107-21-1	TLV®	25		50				vap	ACGIH® 2022

**notation**

- aerosol as aerosols
- appx-D see Appendix D - Substances with No Established RELs
- Ceiling-C ceiling value is a limit value above which exposure should not occur
- i inhalable fraction
- STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
- TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)
- vap as vapors

relevant DNELs of components of the mixture						
name of substance	CAS No	endpoint	threshold level	protection goal, route of exposure	used in	exposure time
Ethane-1,2-diol	107-21-1	DNEL	35 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
Ethane-1,2-diol	107-21-1	DNEL	106 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

relevant PNECs of components of the mixture						
name of substance	CAS No	endpoint	threshold level	organism	environmental compartment	exposure time
Ethane-1,2-diol	107-21-1	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
Ethane-1,2-diol	107-21-1	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
Ethane-1,2-diol	107-21-1	PNEC	199.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Ethane-1,2-diol	107-21-1	PNEC	37 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Ethane-1,2-diol	107-21-1	PNEC	3.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Ethane-1,2-diol	107-21-1	PNEC	1.53 mg/kg	terrestrial organisms	soil	short-term (single instance)

**CRISPR/Cas9 - HRP Antibody 7A9**

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

**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.

**SECTION 9: Physical and chemical properties**

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

**appearance**

physical state	liquid
color	yellow
particle	not relevant (liquid)
odor	odorless

**other safety parameters**

pH (value)	not determined
melting point/freezing point	not determined
initial boiling point and boiling range	not determined
flash point	not determined
evaporation rate	not determined
flammability (solid, gas)	not relevant, (fluid)
vapor pressure	not determined
density	not determined

## CRISPR/Cas9 - HRP Antibody 7A9

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

vapor density	this information is not available
relative density	information on this property is not available
solubility(ies)	not determined
partition coefficient	
- n-octanol/water (log KOW)	this information is not available
auto-ignition temperature	not determined
viscosity	not determined
explosive properties	none
oxidizing properties	none
<b>9.2 other information</b>	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

the material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 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

oxidizers

#### 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 OSHA "Hazard Communication Standard" (29 CFR 1910.1200)**

this mixture does not meet the criteria for classification.

acute toxicity

shall not be classified as acutely toxic.

## CRISPR/Cas9 - HRP Antibody 7A9

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

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 sensitization

shall not be classified as a respiratory or skin sensitizer.

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.

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.

### SECTION 12: Ecological information

#### 12.1 toxicity

shall not be classified as hazardous to the aquatic environment.

#### 12.2 persistence and degradability

data are not available.

#### 12.3 bioaccumulative potential

data are not available.

#### 12.4 mobility in soil

data are not available.

#### 12.5 results of PBT and vPvB assessment

data are not available.

#### 12.6 endocrine disrupting properties

information on this property is not available.

#### 12.7 other adverse effects

data are not available.

## CRISPR/Cas9 - HRP Antibody 7A9

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

### 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/packages

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 | <b>UN number</b>                                      | not subject to transport regulations                                  |
| 14.2 | <b>UN proper shipping name</b>                        | not relevant  |
| 14.3 | <b>transport hazard class(es)</b>                     | not assigned  |
| 14.4 | <b>packing group</b>                                  | not assigned  |
| 14.5 | <b>environmental hazards</b>                          | non-environmentally hazardous acc. to the dangerous goods regulations |
| 14.6 | <b>special precautions for user</b>                   | there is no additional information.                                   |
| 14.7 | <b>transport in bulk according to IMO instruments</b> | the cargo is not intended to be carried in bulk.                      |

#### Information for each of the UN Model Regulations

##### **transport of dangerous goods by road or rail (49 CFR US DOT) - additional information**

not subject to transport regulations.

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

not subject to IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR) - additional information**

not subject to ICAO-IATA.

### SECTION 15: Regulatory information

#### 15.1 safety, health and environmental regulations specific for the product in question

##### **industry or sector specific available guidance(s)**

##### **NPCA-HMIS® III**

Hazardous Materials Identification System. American Coatings Association.

## CRISPR/Cas9 - HRP Antibody 7A9

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

category	rating	description
Chronic	/	none
Health	0	no significant risk to health
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

### NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

category	degree of hazard	description
Flammability	1	material that must be preheated before ignition can occur
Health	0	material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

## 15.2 Chemical Safety Assessment

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

## SECTION 16: Other information, including date of preparation or last revision

### indication of changes (revised safety data sheet)

section	former entry (text/value)	actual entry (text/value)	safety-relevant
1.1	trade name: CRISPR/Cas9 - HRP monoclonal antibody 7A9	trade name: CRISPR/Cas9 - HRP Antibody 7A9	yes
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	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	yes
2.3	other hazards	other hazards: of no significance	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.		yes
8.1		occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)	yes
9.1		particle: not relevant (liquid)	yes
9.1	odor: characteristic	odor: odorless	yes

## CRISPR/Cas9 - HRP Antibody 7A9

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section	former entry (text/value)	actual entry (text/value)	safety-rel- evant
9.1	explosive limits: not determined		yes
12.6	other adverse effects: data are not available.	endocrine disrupting properties: information on this property is not available.	yes
14.2	UN proper shipping name: not assigned	UN proper shipping name: not relevant	yes
16		abbreviations and acronyms: change in the listing (table)	yes

### abbreviations and acronyms

abbr.	descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2022	From ACGIH®, 2022 TLVs® and BEIs® Book. Copyright 2022. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: <a href="http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement">http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement</a>
Acute Tox.	Acute toxicity
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
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
IMDG	International Maritime Dangerous Goods Code
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
STEL	Short-term exposure limit
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

## CRISPR/Cas9 - HRP Antibody 7A9

version number: GHS 2.0  
replaces version of: 2020-12-21 (GHS 1)

revision: 2022-12-23

### key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

transport of dangerous goods by road or rail (49 CFR US DOT). 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
H302	Harmful if swallowed.

### disclaimer

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