

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272

**MATERIAL SAFETY DATA SHEET (MSDS)**

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 [REACH] and Regulation (EC) No. 1272/2008 [CLP].

Revision date: 12.12.2023

BioLiqX cf-RNA Isolation Kit | cat # HB205A

In accordance with European Directive 1999/45/EC and Regulations 1907/2006/EC and 1272/2008/EC the following components of the BioLiqX RNA Isolation Kit do not require a Material Safety Data Sheet as they contain a quantity not exceeding 1% of components classified as dangerous and not greater than 0.1% of components classified as carcinogenic:

COMPONENT NAME	CATALOG NUMBER
Nuclease-free water	HBWT20A
Washing buffer 2	HBWB220A

For this reason, Heidelberg Biolabs GmbH provides no safety data sheet for these components. Despite working with these or any other chemical is always advisable to use protective gloves, suitable clothing, and goggles. Heidelberg Biolabs GmbH assumes no liability for damage to property and / or injury resulting from use and contact with these components.

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272

**1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY**

1.1 Product Identifier

Product Catalog Number	HBLBR20A
Product Name	BioLiqX Lysis Buffer R
Kit Catalog Number	HB205A
Kit Name	BioLiqX cf-RNA Isolation Kit
Chemical Name	Not Applicable
Unique Formula Identifier (UFI)	Not Applicable
REACH registration number	No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

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

Relevant identified uses	Research use only laboratory chemicals
--------------------------	--

1.3 Details of the supplier of the Material Safety Data Sheet

Supplier:

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Phone: +49 171 1908276

Fax: +49 6221 5025711

E-mails: info@heidelbergbiolabs.com, info@heidelbergbiolabs.de**1.4 Emergency telephone number**

Within the USA + Canada: 1-800-424-9300 and 1-703-527-3887

Outside the USA + Canada: 1-703-741-5970

CHEMTREC Germany: +49 (0)696 43508409

CHEMTREC UK: +44-870-8200418

CHEMTREC worldwide: 0800 181 7059

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to regulation (EC) 1272/2008:

Acute toxicity, Oral (Category 4), H302

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312

Skin corrosion (Sub-category 1C), H314

Serious eye damage (Category 1), H318

Long-term (chronic) aquatic hazard (Category 3), H412

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram:



Signal word: Danger

Hazard statements:

H301 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273	Avoid release to the environment.
P280	Wear protective gloves, protective clothing, eye protection, face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
--------------------	--

Supplemental hazard information (EU):

EUH032	Contact with acids liberates very toxic gas.
--------	--

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

COMPONENT	CLASSIFICATION	CONCENTRATION
Guanidine thiocyanate (CAS-No: 593-84-0; EC-No: 209-812-1; Index-No: 615-030-00-5; REACH registration number: 01-2120735072-65-XXXX)	Acute Tox. 4; Skin Corr. 1C; Eye Dam. 1; Aquatic Chronic 3; H302, H332, H312, H314, H318, H412	50 - 70%

COMPONENT	Specific concentration limit (SCL)	M-Factor	Acute Toxicity Estimate
Guanidine thiocyanate	-	-	-

4. FIRST AID MEASURES

4.1 Description of first aid measures

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



General Advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
After Inhalation	Fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
After eye contact	Rinse thoroughly with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
After skin contact	Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
After ingestion	Give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

No data available.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media	Water Foam Carbon dioxide (CO ₂) Dry powder
Unsuitable Extinguishing Media	For this substance/mixture no limitations of extinguishing agents are given

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides, Sulphur oxides

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



Suppress (knock down) gases/vapors/mists with a water spray jet.

Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation
For emergency responders	Use personal protection recommended in Section 8

6.2 Environmental precautions

Prevent product from entering drains. Do not allow material to contaminate ground water system.

6.3 Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations

6.4 Reference to other sections

- See section 8 for more information
- See section 13 for more information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- Work under hood.
- Avoid generation of vapours/aerosols. Use personal protective equipment as required.
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid inhalation and contact with eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

- Keep container tightly closed in a dry and well-ventilated place.
- Keep locked up or in an area accessible only to qualified or authorized persons.
- Do not store near acids.
- Keep in properly labelled containers.

7.3 Specific end use(s)

- For research and development use only.

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 Control parameters

- No information available

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles)
Skin and body protection	Wear suitable protective clothing.
Hand protection	Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.
Respiratory protection	No protective equipment is needed under normal use conditions. In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice
Engineering Measures	Ensure adequate ventilation, especially in confined areas.
Environmental exposure controls	Prevent product from entering drains. Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Color	Colorless
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting / freezing point	No information available
Flash point	No information available
Boiling point	No information available
Evaporation rate	No information available
Density	No information available
Viscosity	No information available
Solubility	No information available

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



Partition coefficient	No information available
Vapour Pressure	No information available
Specific gravity	No information available
Relative density	No information available
Vapour density	No information available
Explosive properties	No information available
Oxidising properties	No information available
Particle characteristics	No information available

9.2 Other information

Soluble in Dimethyl sulfoxide (DMSO).

10. STABILITY AND REACTIVITY

10.1 Reactivity

- Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

- Chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

- None under normal processing.
- Generates dangerous gases or fumes in contact with acids.

10.4 Conditions to avoid

- Exposure to light.
- Strong heating.
- DO NOT ADD acids or bleach to any liquid wastes containing this product.

10.5 Incompatible materials

- Strong oxidizing agents, Strong bases, Strong acids

10.6 Hazardous decomposition products

- In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Guanidine thiocyanate	593 mg/kg	No data available	No data available

Principal Routes of Exposure:

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



Acute toxicity	No data available
Skin corrosion/irritation	Causes skin burns.
Serious eye damage/eye irritation	Mixture causes serious eye damage. Risk of blindness!
Respiratory or skin sensitization	Data are conclusive but insufficient for classification
Germ cell mutagenicity	Data are conclusive but insufficient for classification
Carcinogenicity	Data are conclusive but insufficient for classification
Reproductive toxicity	Data are conclusive but insufficient for classification
Specific target organ toxicity - single exposure	Data are conclusive but insufficient for classification
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard	No data available
Additional Information	No data available

11.2 Additional Information

This substance should be handled with particular care.

Handle in accordance with good industrial hygiene and safety practice.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Hazardous to the Aquatic Environment.

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



Contains a known or suspected endocrine disruptor.

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods

Waste from residues/unused products	Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. Do not empty into drains. Do not dispose of waste into sewer.
Contaminated packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

IATA / ADR / DOT-US / IMDG

UN Number	2922
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (Guanidine thiocyanate)
Transport hazard class(es)	8
Packing group	III
Environmental hazard	no
Special Provisions	No data available
Maritime transport in bulk according to IMO instruments	No information available

15. REGULATORY INFORMATION

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

- Substances of Very High Concern: None
- Substance subject to authorisation per REACH Annex XIV: None
- Restricted substances under EC 1907/2006, Annex XVII: None
- Substances listed under Annex I of Regulation (EC) No 689/2008: None
- Restricted substances under Annex V of Regulation (EC) No 689/2008: None
- Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



- German Water hazard classes (Wassergefährdungsklassen).
Phenol: hazard class 2 - obviously hazardous to water; guanidine thiocyanate: hazard class 2 - obviously hazardous to water.

15.2 Chemical safety assessment

- For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

This material safety data sheet (MSDS) complies with the requirements of Regulation (EC) No. 1907/2006 COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006. Heidelberg Biolabs GmbH urges each user to carefully read the MSDS prior to using the product and become aware to the adverse health effects associated with this product. However, the information in this MSDS shall not be taken as being all inclusive and is intended only as a guide to the appropriate precautionary handling. All materials and mixtures may present unknown hazards and should be used with caution. Since Heidelberg Biolabs GmbH cannot control actual methods, volumes, or conditions of use, the Heidelberg Biolabs GmbH shall not be held liable for any damages or losses resulting from the contact, handling, storage or disposal of this product.

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272

**1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY****1.1 Product Identifier**

Product Catalog Number	HBWB120A
Product Name	Washing Buffer 1
Kit Catalog Number	HB205A
Kit Name	BioLiqX cf-RNA Isolation Kit
Chemical Name	Not Applicable
Unique Formula Identifier (UFI)	Not Applicable
REACH registration number	No registration number is given yet for this substance / substances in this mixture since the annual import quantity is less than one tonnage per annum or the transition period for its registration according to Article 23 of REACH has not yet expired.

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

Relevant identified uses	Research use only laboratory chemicals
--------------------------	--

1.3 Details of the supplier of the Material Safety Data Sheet

Supplier:

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Phone: +49 171 1908276

Fax: +49 6221 5025711

E-mails: info@heidelbergbiolabs.com, info@heidelbergbiolabs.de**1.4 Emergency telephone number**

Within the USA + Canada: 1-800-424-9300 and 1-703-527-3887

Outside the USA + Canada: 1-703-741-5970

CHEMTREC Germany: +49 (0)696 43508409

CHEMTREC UK: +44-870-8200418

CHEMTREC worldwide: 0800 181 7059

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to regulation (EC) 1272/2008:

Skin corrosion/irritation (Category 2), H315

Serious eye damage/eye irritation (Category 2), H319

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram:



Signal word: Warning

Hazard statements:

H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statements:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves, protective clothing, eye protection, face protection.
P302 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332 + P313	If skin irritation occurs: Get medical advice/attention
P337 + P313	If eye irritation persists: Get medical advice/attention
P362 + P364	Take off contaminated clothing and wash it before reuse

2.3 Other hazards

Not Applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

COMPONENT	CLASSIFICATION	CONCENTRATION
Guanidine thiocyanate (CAS-No: 593-84-0; EC-No: 209-812-1; Index-No: 615-030-00-5; REACH registration number: 01-2120735072-65-XXXX)	Acute Tox. 4; Skin Corr. 1C; Eye Dam. 1; Aquatic Chronic 3; H302, H332, H312, H314, H318, H412	5 - 15%

COMPONENT	Specific concentration limit (SCL)	M-Factor	Acute Toxicity Estimate
Guanidine thiocyanate	-	-	-

4. FIRST AID MEASURES

4.1 Description of first aid measures

After Inhalation	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
After eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
After skin contact	Rinse skin with water. Immediate medical attention is not required.
After ingestion	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

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

H315 (Causes skin irritation), H319 (Causes serious eye irritation).

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

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. Get medical advice/attention if you feel unwell.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media	Dry powder, Dry sand, Carbon dioxide
Unsuitable Extinguishing Media	For this substance/mixture no limitations of extinguishing agents are given

5.2 Special hazards arising from the substance or mixture

Not known.

5.3 Advice for firefighters

Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation
For emergency responders	Use personal protection recommended in Section 8

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4 Reference to other sections

- See section 8 for more information
- See section 13 for more information

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

- Use personal protective equipment as required.
- No special handling advices are necessary.

7.2 Conditions for safe storage, including any incompatibilities

- Keep container tightly closed in a dry and well-ventilated place.
- Keep in properly labelled containers.

7.3 Specific end use(s)

- For research and development use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

- No information available

8.2 Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear suitable protective clothing.
Hand protection	Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.
Respiratory protection	No protective equipment is needed under normal use conditions. In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Color	Colorless
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting / freezing point	No information available
Flash point	No information available
Boiling point	No information available
Evaporation rate	No information available
Density	No information available
Viscosity	No information available
Solubility	No information available
Partition coefficient	No information available

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



Vapour Pressure	No information available
Specific gravity	No information available
Relative density	No information available
Vapour density	No information available
Explosive properties	No information available
Oxidising properties	No information available
Particle characteristics	No information available

10. STABILITY AND REACTIVITY**10.1 Reactivity**

- Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

- Chemically stable under normal conditions.

10.3 Possibility of hazardous reactions

- Hazardous reaction has not been reported.

10.4 Conditions to avoid

- No information available.

10.5 Incompatible materials

- No dangerous reaction known under conditions of normal use.

10.6 Hazardous decomposition products

- No data available.

11. TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Guanidine thiocyanate	593 mg/kg	No data available	No data available

Principal Routes of Exposure:

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes eye irritation.
Respiratory or skin sensitization	Data are conclusive but insufficient for classification
Germ cell mutagenicity	Data are conclusive but insufficient for classification

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272



Carcinogenicity	Data are conclusive but insufficient for classification
Reproductive toxicity	Data are conclusive but insufficient for classification
Specific target organ toxicity - single exposure	Data are conclusive but insufficient for classification
Specific target organ toxicity - repeated exposure	Data are conclusive but insufficient for classification
Aspiration hazard	Data are conclusive but insufficient for classification

12. ECOLOGICAL INFORMATION

12.1 Toxicity

The environmental impact of this product has not been fully investigated.

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

No information available

13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272

**14. TRANSPORT INFORMATION**

IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulations

UN Number	Not Applicable
UN proper shipping name	Not Applicable
Transport hazard class(es)	Not Applicable
Packing group	Not Applicable
Environmental hazard	Not Applicable
Special Provisions	Not Applicable
Maritime transport in bulk according to IMO instruments	Not Applicable

15. REGULATORY INFORMATION

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

- Substances of Very High Concern: None
- Substance subject to authorisation per REACH Annex XIV: None
- Restricted substances under EC 1907/2006, Annex XVII: None
- Substances listed under Annex I of Regulation (EC) No 689/2008: None
- Restricted substances under Annex V of Regulation (EC) No 689/2008: None
- Substances under Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC: None
- German Water hazard classes (Wassergefährdungsklassen). Guanidine thiocyanate: hazard class 2 - obviously hazardous to water.

15.2 Chemical safety assessment

- For this product a chemical safety assessment was not carried out.

Heidelberg Biolabs GmbH

Im Neuenheimer Feld 582

69120 Heidelberg, Germany

Register court (Amtsgericht) Mannheim HRB 733371

VAT identification number: DE324045272

**16. OTHER INFORMATION**

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

This material safety data sheet (MSDS) complies with the requirements of Regulation (EC) No. 1907/2006 COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006. Heidelberg Biolabs GmbH urges each user to carefully read the MSDS prior to using the product and become aware to the adverse health effects associated with this product. However, the information in this MSDS shall not be taken as being all inclusive and is intended only as a guide to the appropriate precautionary handling. All materials and mixtures may present unknown hazards and should be used with caution. Since Heidelberg Biolabs GmbH cannot control actual methods, volumes, or conditions of use, the Heidelberg Biolabs GmbH shall not be held liable for any damages or losses resulting from the contact, handling, storage or disposal of this product.