

BIO-52065

BIO-52066

BIO-52067

**ISOLATE II Genomic DNA Kit**  
**Safety Data Sheet**



A Meridian Life Science® Company

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

### 1.1 Product identifier

Product form: Mixture  
Product name: 5 - 100 mL Lysis Buffer GL  
Cat. No.: BIO-52065, BIO-52066 & BIO-52067

REACH Registration number(s): see SECTION 3.1/3.2 or  
A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

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

#### Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0  
The exposure scenario is integrated into sections 1-16.

#### Uses advised against

not described

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

Bioline Reagents Ltd.  
Humber Road  
London  
NW2 6EW  
United Kingdom  
T: +44 (0)20 8830 5300  
F: +44 (0)20 8452 2822

E-mail: [info.uk@bioline.com](mailto:info.uk@bioline.com)

### 1.4 Emergency telephone number

+49 (0) 7611 9240 (Germany)  
(24 hours, 7 days)

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

#### 5 - 100 mL Lysis Buffer GL

*Directive 1999/45/EC*

Symbols - do not need labelling as hazardous

*CLP Directive 1272/2008/EC*

GHS pictograms do not need labelling as hazardous  
Signal word -

No hazard class

### 2.2 Label elements

#### 5 - 100 mL Lysis Buffer GL

*Directive 1999/45/EC*

Symbols:

-  
-

*CLP Directive 1272/2008/EC*

GHS pictograms:  
do not need labelling as hazardous  
Signal word: -

### 2.3 Other hazards

#### Possible Hazards from physicochemical Properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC, 1999/45/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit.

An individual package has considerably less hazardous potential.

#### Information pertaining to particular Risks to Human and possible Symptoms

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#### Information pertaining to particular Risks to the Environment

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#### Other Hazards

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## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 5 - 100 mL Lysis Buffer GL

Chemical: *chemicals/mixture < 2%, not hazardous*

CAS No.: -

Concentration: 1 - 2 %

KE No.: listed

acc. 1999/45/EC: -

acc. CLP (GHS): not necessary

### 3.3 Remarks

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

#### 4.1.1 After SKIN Contact

Not necessary.

#### 4.1.2 After EYE Contact

Not necessary.

#### 4.1.3 After INHALATION of Vapours

Not necessary.

#### 4.1.4 After ORAL Intake

Not necessary.

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

Avoid inhalation of dust. ---

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

No additionally recommendations.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

None.

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional Information

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## SECTION 6: Accidental release measures

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

Do not breathe vapours. Not necessary.

### 6.2 Environmental precautions

not necessary

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

Clean working area with water. Flush used water into drains.

### 6.4 Reference to other sections

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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

The original product package allows a safe storage.

Storage class (VCI):

12

WGK (DE):

1

#### 7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

5 - 100 mL Lysis Buffer GL

Chemical: *chemicals/mixture < 2%, not hazardous*

CAS No.: -

### 8.2 Exposure controls

Not necessary. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

#### 8.2.1 Respiratory Protection

Not necessary.

#### 8.2.2 Hand Protection

Not necessary.

#### 8.2.3 Eye Protection

Not necessary.

#### 8.2.4 Skin Protection

Not necessary.

#### 8.2.5 Personal Hygiene

Information not necessary.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

5 - 100 mL Lysis Buffer GL

Appearance: liquid

Color: colourless

Odor: odorless

pH:

7.5-8.5

Specific gravity:

1.02 g/cm<sup>3</sup>

### 9.2 Other information

Relevant Properties of Substance Group

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### 9.2.1

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Or when indicated in packing insert.

### 10.5 Incompatible materials

Not necessary.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 5 - 100 mL Lysis Buffer GL

Chemical: *chemicals/mixture < 2%, not hazardous*  
Korea Exist.Chem.Inventory: listed

CAS No.: -

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 5 - 100 mL Lysis Buffer GL

Chemical: *chemicals/mixture < 2%, not hazardous*  
WGK (DE): 1  
Storage class (VCI): 12-13

CAS No.: -

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

not necessary

### 12.4 Mobility in soil

not necessary

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no additional data available

### SECTION 13: Disposal considerations

Not necessary.

#### 13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

### SECTION 14: Transport information

14.1 - 14.4 Not necessary

#### 14.5 Environmental hazards

not necessary

#### 14.6 Special precautions for user

not necessary

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

### SECTION 15: Regulatory Information

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

#### 15.2 Chemical safety assessment

not necessary for these small amounts

### SECTION 16: Other Information

#### 16.1 List of R, H and P phrases

##### 16.1.1 List of relevant R phrases

##### 16.1.2 List of relevant H phrases

##### 16.1.3 List of relevant P phrases

#### 16.2 Training Advice

Regular safety training.

#### 16.3 Recommended Restriction on Use

None

#### 16.4 Further Information

**Bioline Reagents Ltd** provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

**Bioline Reagents Ltd** makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly **Bioline Reagents Ltd** will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

#### 16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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

### 1.1 Product identifier

Product form: Mixture  
Product name: 10 - 60 mL Buffer G3  
Cat. No.: BIO-52062, BIO-52063, BIO-52064, BIO-52065, BIO-52066 & BIO-52067

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

#### Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC

0 The exposure scenario is integrated into sections 1-16.

#### Uses advised against

not described

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

Bioline Reagents Ltd.  
Humber Road  
London  
NW2 6EW  
United Kingdom  
T: +44 (0)20 8830 5300  
F: +44 (0)20 8452 2822

E-mail: info.uk@bioline.com

### 1.4 Emergency telephone number

+49 (0) 7611 9240 (Germany)  
(24 hours, 7 days)

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

#### 10 - 60 mL Buffer G3

Directive 1999/45/EC

Symbols

R 36



Xi

CLP Directive 1272/2008/EC

GHS pictograms



GHS07

Signal word

WARNING

**Hazard identification**

**Hazard classes/categories**

H302

Acute Tox. 4 oral

H319

Eye Irritation cat. 2

### 2.2 Label elements

According 1999/45/EC small amounts of harmful and highly flammable preparations/mixtures have partly/completely exemption from labelling (no symbols F, O, Xn, Xi, N and no R and S phrases are necessary) until **25-125 mL/g**.

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier (EU 1272/2008 Annex I - 1.5.1.2). Harmful chemicals/mixtures with signal word: **WARNING** must not be labelled with H and P phrases until **125 mL** or **125 g** (EU 1272/2008 Annex I - 1.5.2).

# Buffer G3

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

### 10 - 60 mL Buffer G3

Directive 1999/45/EC

Symbols:



Xi

R 36

Irritating to eyes.

S 26-39

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

CLP Directive 1272/2008/EC

GHS pictograms:



GHS07

Signal word: WARNING

### 2.3 Other hazards

#### Possible Hazards from physicochemical Properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC, 1999/45/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit. An individual package has considerably less hazardous potential.

#### Information pertaining to particular Risks to Human and possible Symptoms

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#### Information pertaining to particular Risks to the Environment

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#### Other Hazards

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## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 10 - 60 mL Buffer G3

Chemical:	<i>guanidine hydrochloride</i>	CAS No.:	50-01-1
Concentration:	36 - <50 %		
Formula:	CH <sub>6</sub> ClN <sub>3</sub>		
Pseudonym:	guanidinium chloride		
REACH Preregistration (for):	05-2114282045-53-0000 (2018)		
EC No.:	200-002-3	Indice No.:	607-148-00-0
RTECS:	MF4300000	MFCD:	00013026
TSCA Inventory:	listed		
KE No.:	KE-18111		
acc. 1999/45/EC:	R 22-36	acc. CLP (GHS):	H302, H319
Chemical:	<i>polyoxyethylene sorbitan monolaurate (Tween® 20)</i>	CAS No.:	9005-64-5
Concentration:	10 - <33 %		
Formula:	C <sub>58</sub> H <sub>114</sub> O <sub>26</sub>		
Pseudonym:	Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.		
RTECS:	TR7400000	MFCD:	00165986
TSCA Inventory:	listed		
KE No.:	KE-31681		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary



### 3.3 Remarks

List of R, H and P phrases: see section 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).

#### 4.1.3 After INHALATION of Vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free.

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested.

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

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

No additionally recommendations.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

Formation of hazardous and caustic vapour-air mixtures possible.

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional Information

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## SECTION 6: Accidental release measures

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

Do not breathe vapours. Regular staff training is necessary.

### 6.2 Environmental precautions

not necessary

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

Bind any escaping liquid with inert absorbent. Collect small amounts of leaked liquid and flush with water into drains.

### 6.4 Reference to other sections

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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

The original product package of MACHEREY-NAGEL allows a safe storage.  
Storage class (German chemical industry): see chapter 12.1

# Buffer G3

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

Storage class (VCI): 10  
WGK (DE): 1

### 7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

### 7.3 Specific end use(s)

Product for analytical use. ---

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 10 - 60 mL Buffer G3

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

NIOSH: not listed

OSHA: not listed

Chemical: *polyoxyethylene sorbitan monolaurate (Tween® 20)*

CAS No.: 9005-64-5

### 8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

#### 8.2.1 Respiratory Protection

Only if additional recommendations in test instruction or packing insert.

#### 8.2.2 Hand Protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC (f.ex. from Ansell or KCL).

#### 8.2.3 Eye Protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

#### 8.2.4 Skin Protection

Not necessary.

#### 8.2.5 Personal Hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 10 - 60 mL Buffer G3

Appearance : liquid

Color : slightly yellow

Odor : odorless

pH: 3.5-4

Specific gravity: 1.15 g/cm<sup>3</sup>

### 9.2 Other information

#### Relevant Properties of Substance Group

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#### 9.2.1

- Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

No data available. Note: Can form very reactive substances with oxidizing agents.

# Buffer G3

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

### 10.4 Conditions to avoid

Or when indicated in packing insert.

### 10.5 Incompatible materials

Not necessary.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 10 - 60 mL Buffer G3

Chemical:	<i>guanidine hydrochloride</i>	CAS No.:	50-01-1
TSCA Inventory:	listed	California Proposition 65 List:	not listed
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	not listed		
Japan PDSCL:	not listed	Japan ISHL:	not listed
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-18111		
LD50 <sub>orl rat</sub> :	475 mg/kg		
LC50 <sub>ihl rat</sub> :	5.34h mg/m <sup>3</sup>		
LD50 <sub>drm rbt</sub> :	>2000 mg/kg		

Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

Chemical:	<i>polyoxyethylene sorbitan monolaurate (Tween® 20)</i>	CAS No.:	9005-64-5
TSCA Inventory:	listed		
Korea Exist.Chem.Inventory:	KE-31681		

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 10 - 60 mL Buffer G3

Chemical:	<i>guanidine hydrochloride</i>	CAS No.:	50-01-1
LC50 <sub>leuciscus idus/96h</sub> :	1759 mg/L		
WGK (DE):	1	WGK No.:	0788
Storage class (VCI):	12		

Chemical:	<i>polyoxyethylene sorbitan monolaurate (Tween® 20)</i>	CAS No.:	9005-64-5
WGK (DE):	1		
Storage class (VCI):	10-11		

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no data available

### SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

#### 13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains.

### SECTION 14: Transport information

No dangerous goods according the transport regulations

#### 14.5 Environmental hazards

not necessary, contains only small quantities of hazardous substances

#### 14.6 Special precautions for user

not necessary

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

### SECTION 15: Regulatory Information

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

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013  
German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC  
TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011

#### 15.2 Chemical safety assessment

not necessary for these small amounts

### SECTION 16: Other Information

#### 16.1 List of R, H and P phrases

##### 16.1.1 List of relevant R phrases

R22 Harmful if swallowed.  
R36 Irritating to eyes.

##### 16.1.2 List of relevant H phrases

H302 Harmful if swallowed.  
H319 Causes serious eye irritation.

##### 16.1.3 List of relevant P phrases

P264W Wash with water thoroughly after handling.  
P280sh Wear protective gloves/eye protection.  
P301+312 IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.  
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P330 Rinse mouth.  
P337+313 If eye irritation persists: Get medical advice/attention.

#### 16.2 Training Advice

Regular safety training.

#### 16.3 Recommended Restriction on Use

Only for professional user.  
An individual package of this product or test kit has a moderate hazardous potential.

#### 16.4 Further Information

**Bioline Reagents Ltd** provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

**Bioline Reagents Ltd** makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly **Bioline Reagents Ltd** will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

# Buffer G3

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

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### 16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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

### 1.1 Product identifier

Product form: Mixture  
 Product name: 5 - 150 mL Wash Buffer GW1  
 Cat. No.: BIO-52062, BIO-52063, BIO-52064, BIO-52065, BIO-52066 & BIO-52067  
 REACH Registration number(s): see SECTION 3.1/3.2 or  
 A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

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

#### Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0  
 The exposure scenario is integrated into sections 1-16.

#### Uses advised against

not described

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

Bioline Reagents Ltd.  
 Humber Road  
 London  
 NW2 6EW  
 United Kingdom  
 T: +44 (0)20 8830 5300  
 F: +44 (0)20 8452 2822

E-mail: info.uk@bioline.com

### 1.4 Emergency telephone number

+49 (0) 7611 9240 (Germany)  
 (24 hours, 7 days)

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

5 - 150 mL Wash Buffer GW1

Directive 1999/45/EC

Symbols do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms



GHS02 GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H226	Flammable Liquid cat. 3
H302	Acute Tox. 4 oral
H319	Eye Irritation cat. 2
H336	STOT SE 3

### 2.2 Label elements

According 1999/45/EC small amounts of harmful and highly flammable preparations/mixtures have partly/completely exemption from labelling (no symbols F, O, Xn, Xi, N and no R and S phrases are necessary) until **25-125 mL**g .

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier (EU 1272/2008 Annex I - 1.5.1.2). Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases until **125 mL** (EU 1272/2008 Annex I - 1.5.2).

The irritant hazard should be eliminated, because of buffer chemicals inside.

# Wash Buffer GW1

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

### 5 - 150 mL Wash Buffer GW1

Directive 1999/45/EC

Symbols:

-  
-

S 26-39

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

CLP Directive 1272/2008/EC

GHS pictograms:



GHS02



GHS07

Signal word: WARNING

### 2.3 Other hazards

#### Possible Hazards from physicochemical Properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. Vapour forms explosive mixtures with air.

#### Information pertaining to particular Risks to Human and possible Symptoms

Cause after oral intake, impairments of health when ingested in small quantities. ---

#### Information pertaining to particular Risks to the Environment

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#### Other Hazards

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## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 5 - 150 mL Wash Buffer GW1

Chemical:	<i>guanidine hydrochloride</i>	CAS No.:	50-01-1
Concentration:	36 - 50 %		
Formula:	CH <sub>6</sub> ClN <sub>3</sub>		
Pseudonym:	guanidinium chloride		
REACH Reg. No.:	---		
REACH Preregistration (for):	05-2114282045-53-0000 (2018)		
EC No.:	200-002-3	Indice No.:	607-148-00-0
RTECS:	MF4300000	MFCD:	00013026
TSCA Inventory:	listed		
KE No.:	KE-18111		
acc. 1999/45/EC:	R 22-36	acc. CLP (GHS):	H302, H319

Chemical:	<i>2-propanol</i>	CAS No.:	67-63-0
Concentration:	20 - 50 %		
Formula:	C <sub>3</sub> H <sub>8</sub> O		
Pseudonym:	isopropanol, IPA, propan-2-ol		
REACH Reg. No.:	01-2119457558-25-xxxx		
EC No.:	200-661-7	Indice No.:	603-117-00-0
RTECS:	NT8050000	MFCD:	00011674
TSCA Inventory:	listed		
KE No.:	KE-29363		
acc. 1999/45/EC:	R 10-36-67	acc. CLP (GHS):	H226, H319, H336

### 3.3 Remarks

List of R, H and P phrases: see section 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).

#### 4.1.3 After INHALATION of Vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free.

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested.

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

Avoid inhalation of dust. ---

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

No additionally recommendations.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

WARNING: Flammable (GHS regulation). May form explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible.

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional Information

---

## SECTION 6: Accidental release measures

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

Do not breathe vapours. Regular staff training is necessary.

### 6.2 Environmental precautions

not necessary

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

Bind any escaping liquid with inert absorbent. Collect small amounts of leaked liquid and flush with water into drains.

### 6.4 Reference to other sections

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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

The original product package allows a safe storage.

Storage class (VCI):

3

WGK (DE):

1

#### 7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.



# Wash Buffer GW1

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 5 - 150 mL Wash Buffer GW1

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

NIOSH: not listed

OSHA: not listed

Chemical: *2-propanol*

CAS No.: 67-63-0

DNEL: 500<sub>inh</sub> mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): 200 ppm / 500 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 2 (II), Y

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 200 ppm / 500 mg/m<sup>3</sup>

TRGS 903 (DE): B/b, U/b 25<sub>Aceton</sub> mg/L  
B blood, U urine

NIOSH: TWA 400 ppm / 980 mg/m<sup>3</sup>; ST 500 ppm / 1225 mg/m<sup>3</sup>

NIOSH STEL: 1225 mg/m<sup>3</sup>

OSHA: TWA 400 ppm / 980 mg/m<sup>3</sup>

### 8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

#### 8.2.1 Respiratory Protection

Only if additional recommendations in test instruction or packing insert.

#### 8.2.2 Hand Protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

#### 8.2.3 Eye Protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

#### 8.2.4 Skin Protection

Not necessary.

#### 8.2.5 Personal Hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 5 - 150 mL Wash Buffer GW1

Appearance: liquid

Color: colourless

Odor: alcoholic

pH: 7-8

Flash point: 25 °C

Specific gravity: 1.06 g/cm<sup>3</sup>

### 9.2 Other information

#### Relevant Properties of Substance Group

---

#### 9.2.1

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

No data available. Note: Can form very reactive substances with oxidizing agents.

### 10.4 Conditions to avoid

Or when indicated in packing insert.

### 10.5 Incompatible materials

Not necessary.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 5 - 150 mL Wash Buffer GW1

Chemical:	<i>guanidine hydrochloride</i>		CAS No.: 50-01-1
TSCA Inventory:	listed	California Proposition 65 List:	not listed
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	not listed		
Japan PDSCL:	not listed	Japan ISHL:	not listed
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-18111		
LD50 <sub>orl rat</sub> :	475 mg/kg		
LC50 <sub>ihl rat</sub> :	5.3 <sub>4h</sub> mg/m <sup>3</sup>		
LD50 <sub>drm rbt</sub> :	>2000 mg/kg		
Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.			

Chemical:	<i>2-propanol</i>		CAS No.: 67-63-0
TSCA Inventory:	listed	California Proposition 65 List:	not listed
ACGIH:	1230 ppm		
Exposure Routes:	inhalation, ingestion, skin and/or eye contact		
Target Organs:	Eyes, skin, respiratory system		
Symptoms:	irritation eyes, nose, throat; drowsiness, dizziness, headache; dry cracking skin; in animals: narcosis		
Australia NICNAS:		Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	PAC yes		
Japan PDSCL:		Japan ISHL:	listed ≥1,0%/≥0,1%, Article 57-2 (SDS required)
South Korea TCCA:			
Korea Exist.Chem.Inventory:	KE-29363		
LD50 <sub>orl rat</sub> :	5045 mg/kg		
LC <sub>Loworl hmn</sub> :	3570 mg/kg		
LC50 <sub>ihl rat</sub> :	16 <sub>4h</sub> g/m <sup>3</sup>		
LD50 <sub>drm rbt</sub> :	12.8 g/kg		
TRGS 905 (DE):	Rf C		

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 5 - 150 mL Wash Buffer GW1

Chemical:	<i>guanidine hydrochloride</i>		CAS No.: 50-01-1
LC50 <sub>leuciscus idus/96h</sub> :	1759 mg/L		
WGK (DE):	1	WGK No.:	0788
Storage class (VCI):	12		

# Wash Buffer GW1

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

Chemical:	<i>2-propanol</i>	
PNEC(fresh water) :		140.9 mg/L
PNEC = Predicted No Effect Concentration		
LC50 <sub>fish/96h</sub> :		1400 mg/L
EC50 <sub>daphnia/48h</sub> :		13.3 g/L
IC50 <sub>scenedesmus quadricauda/72h</sub> :		>1000 mg/L
EC10 <sub>pseudomonas putida/16h</sub> :		EC5: 1050 mg/L
WGK (DE):	1	WGK No.: 0135
Dispersion coefficient <sub>(octanol-water)</sub> :	0.05	
Storage class (VCI):	3	

CAS No.: 67-63-0

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

not necessary

### 12.4 Mobility in soil

not necessary

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no additional data available

## SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

### 13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains.

## SECTION 14: Transport information

UN 1993 class 3 III, **Excepted Quantities** ( $\leq 30 \text{ mL} / \Sigma \leq 1 \text{ L}$ ) = ADR/ IATA E1  
or

**14.1 UN number:** 1993 **14.2 UN proper shipping name:** Flammable liquid, n.o.s. (2-propanol mixture)

**14.3 Class:** 3 **14.4 Packing group:** III

*Road transport*

Classification code: F1

Limited Quantity: 5 L

Excepted Quantity: E 1

Tunnel restriction code: E

Special instructions: 640E

*Air transport*

PAX: 355

CAO: 366

max. weight PAX: 60 L

max. weight CAO: 220 L

*Maritime transport*

EmS: F-E, S-E

Storage category: A

### 14.5 Environmental hazards

not necessary, contains only small quantities of hazardous substances

### 14.6 Special precautions for user

not necessary

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

## SECTION 15: Regulatory Information

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

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013  
German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC  
TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011

### 15.2 Chemical safety assessment not necessary for these small amounts

## SECTION 16: Other Information

### 16.1 List of R, H and P phrases

#### 16.1.1 List of relevant R phrases

R10	Flammable.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

#### 16.1.2 List of relevant H phrases

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

#### 16.1.3 List of relevant P phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P264W	Wash with water thoroughly after handling.
P280sh	Wear protective gloves/eye protection.
P301+312	IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P337+313	If eye irritation persists: Get medical advice/attention.
P370+378	In case of fire: Use all extinguisher media to extinguish.
P403+235	Store in a well-ventilated place. Keep cool.

### 16.2 Training Advice

Regular safety training.

### 16.3 Recommended Restriction on Use

Only for professional user.

An individual package of this product or test kit has a moderate hazardous potential.

### 16.4 Further Information

**Bioline Reagents Ltd** provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

**Bioline Reagents Ltd** makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly **Bioline Reagents Ltd** will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

### 16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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

### 1.1 Product identifier

Product form: Mixture  
Product name: 5 - 50 mL Wash Buffer GW2 (conc.)  
Cat. No.: BIO-52062, BIO-52063, BIO-52064, BIO-52065, BIO-52066 & BIO-520647

REACH Registration number(s): see SECTION 3.1/3.2 or  
A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

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

#### Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC

0 The exposure scenario is integrated into sections 1-16.

#### Uses advised against

not described

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

Bioline Reagents Ltd.  
Humber Road  
London  
NW2 6EW  
United Kingdom  
T: +44 (0)20 8830 5300  
F: +44 (0)20 8452 2822

E-mail: [info.uk@bioline.com](mailto:info.uk@bioline.com)

### 1.4 Emergency telephone number

+49 (0) 7611 9240 (Germany)  
(24 hours, 7 days)

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

#### 5 - 50 mL Wash Buffer GW2 (conc.)

*Directive 1999/45/EC*

Symbols - do not need labelling as hazardous

*CLP Directive 1272/2008/EC*

GHS pictograms - do not need labelling as hazardous  
Signal word -

No hazard class

### 2.2 Label elements

#### 5 - 50 mL Wash Buffer GW2 (conc.)

*Directive 1999/45/EC*

Symbols:

-  
-

*CLP Directive 1272/2008/EC*

GHS pictograms:  
do not need labelling as hazardous  
Signal word: -

### 2.3 Other hazards

#### Possible Hazards from physicochemical Properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC, 1999/45/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit.

An individual package has considerably less hazardous potential.

#### Information pertaining to particular Risks to Human and possible Symptoms

---

#### Information pertaining to particular Risks to the Environment

---

#### Other Hazards

---

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 5 - 50 mL Wash Buffer GW2 (conc.)

Chemical: *chemicals/mixture < 1%, no declaration necessary*

CAS No.: -

Concentration: 0,1 - 1 %

KE No.: listed

acc. 1999/45/EC: -

acc. CLP (GHS): not necessary

### 3.3 Remarks

---

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

#### 4.1.1 After SKIN Contact

Not necessary.

#### 4.1.2 After EYE Contact

Not necessary.

#### 4.1.3 After INHALATION of Vapours

Not necessary.

#### 4.1.4 After ORAL Intake

Not necessary.

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

Avoid inhalation of dust. ---

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

No additionally recommendations.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

None.

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional Information

---

### SECTION 6: Accidental release measures

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

Do not breathe vapours. Not necessary.

#### 6.2 Environmental precautions

not necessary

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

Clean working area with water. Flush used water into drains.

#### 6.4 Reference to other sections

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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

The original product package allows a safe storage.

Storage class (VCI):

12

WGK (DE):

1

#### 7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

#### 7.3 Specific end use(s)

Product for analytical use.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

5 - 50 mL Wash Buffer GW2 (conc.)

Chemical: *chemicals/mixture < 1%, no declaration necessary*

CAS No.: -

#### 8.2 Exposure controls

Not necessary. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

##### 8.2.1 Respiratory Protection

Not necessary.

##### 8.2.2 Hand Protection

Not necessary.

##### 8.2.3 Eye Protection

Not necessary.

##### 8.2.4 Skin Protection

Not necessary.

##### 8.2.5 Personal Hygiene

Information not necessary.

### SECTION 9: Physical and chemical properties

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

5 - 50 mL Wash Buffer GW2 (conc.)

Appearance: liquid

Color: colourless

Odor: odorless

pH:

7-8

Specific gravity:

1.00 g/cm<sup>3</sup>

#### 9.2 Other information

Relevant Properties of Substance Group

---

### 9.2.1

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Or when indicated in packing insert.

### 10.5 Incompatible materials

Not necessary.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 5 - 50 mL Wash Buffer GW2 (conc.)

Chemical: *chemicals/mixture < 1%, no declaration necessary*

CAS No.: -

Korea Exist.Chem.Inventory: listed

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 5 - 50 mL Wash Buffer GW2 (conc.)

Chemical: *chemicals/mixture < 1%, no declaration necessary*

CAS No.: -

WGK (DE): 1

Storage class (VCI): 12-13

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

not necessary

### 12.4 Mobility in soil

not necessary

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no additional data available



### SECTION 13: Disposal considerations

Not necessary.

#### 13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

### SECTION 14: Transport information

14.1 - 14.4 Not necessary

#### 14.5 Environmental hazards

not necessary

#### 14.6 Special precautions for user

not necessary

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

### SECTION 15: Regulatory Information

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

#### 15.2 Chemical safety assessment

not necessary for these small amounts

### SECTION 16: Other Information

#### 16.1 List of R, H and P phrases

##### 16.1.1 List of relevant R phrases

##### 16.1.2 List of relevant H phrases

##### 16.1.3 List of relevant P phrases

#### 16.2 Training Advice

Regular safety training.

#### 16.3 Recommended Restriction on Use

None

#### 16.4 Further Information

**Bioline Reagents Ltd** provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

**Bioline Reagents Ltd** makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly **Bioline Reagents Ltd** will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

#### 16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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

### 1.1 Product identifier

Product form: Mixture  
Product name: 10 - 60 mL Elution Buffer G  
Cat. No.: BIO-52062, BIO-52063, BIO-52064, BIO-52065, BIO-52066 & BIO-520647

REACH Registration number(s): see SECTION 3.1/3.2 or  
A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

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

#### Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC

0 The exposure scenario is integrated into sections 1-16.

#### Uses advised against

not described

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

Bioline Reagents Ltd.  
Humber Road  
London  
NW2 6EW  
United Kingdom  
T: +44 (0)20 8830 5300  
F: +44 (0)20 8452 2822

E-mail: [info.uk@bioline.com](mailto:info.uk@bioline.com)

### 1.4 Emergency telephone number

+49 (0) 7611 9240 (Germany)  
(24 hours, 7 days)

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

#### 10 - 60 mL Elution Buffer G

*Directive 1999/45/EC*

Symbols - do not need labelling as hazardous

*CLP Directive 1272/2008/EC*

GHS pictograms do not need labelling as hazardous  
Signal word -

No hazard class

### 2.2 Label elements

#### 10 - 60 mL Elution Buffer G

*Directive 1999/45/EC*

Symbols:

-  
-

*CLP Directive 1272/2008/EC*

GHS pictograms:  
do not need labelling as hazardous  
Signal word: -

### 2.3 Other hazards

#### Possible Hazards from physicochemical Properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC, 1999/45/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit.

An individual package has considerably less hazardous potential.

#### Information pertaining to particular Risks to Human and possible Symptoms

---

#### Information pertaining to particular Risks to the Environment

---

#### Other Hazards

---

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 10 - 60 mL Elution Buffer G

Chemical:	<i>chemicals/mixture &lt; 1%, no declaration necessary</i>	CAS No.:	-
Concentration:	0,1 - 1 %		
KE No.:	listed		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

### 3.3 Remarks

---

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

#### 4.1.1 After SKIN Contact

Not necessary.

#### 4.1.2 After EYE Contact

Not necessary.

#### 4.1.3 After INHALATION of Vapours

Not necessary.

#### 4.1.4 After ORAL Intake

Not necessary.

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

Avoid inhalation of dust. ---

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

No additionally recommendations.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

None.

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional Information

---

### SECTION 6: Accidental release measures

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

Do not breathe vapours. Not necessary.

#### 6.2 Environmental precautions

not necessary

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

Clean working area with water. Flush used water into drains.

#### 6.4 Reference to other sections

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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

The original product package allows a safe storage.

Storage class (VCI):

12

WGK (DE):

1

#### 7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

#### 7.3 Specific end use(s)

Product for analytical use.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**10 - 60 mL Elution Buffer G**

Chemical: *chemicals/mixture < 1%, no declaration necessary*

CAS No.: -

#### 8.2 Exposure controls

Not necessary. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

##### 8.2.1 Respiratory Protection

Not necessary.

##### 8.2.2 Hand Protection

Not necessary.

##### 8.2.3 Eye Protection

Not necessary.

##### 8.2.4 Skin Protection

Not necessary.

##### 8.2.5 Personal Hygiene

Information not necessary.

### SECTION 9: Physical and chemical properties

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

**10 - 60 mL Elution Buffer G**

Appearance: liquid

Color: colourless

Odor: odorless

pH:

8-9

Specific gravity:

1.0 g/cm<sup>3</sup>

#### 9.2 Other information

**Relevant Properties of Substance Group**

---

### 9.2.1

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Or when indicated in packing insert.

### 10.5 Incompatible materials

Not necessary.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 10 - 60 mL Elution Buffer G

Chemical: *chemicals/mixture < 1%, no declaration necessary*

CAS No.: -

Korea Exist.Chem.Inventory: listed

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 10 - 60 mL Elution Buffer G

Chemical: *chemicals/mixture < 1%, no declaration necessary*

CAS No.: -

WGK (DE): 1

Storage class (VCI): 12-13

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

not necessary

### 12.4 Mobility in soil

not necessary

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no additional data available

### SECTION 13: Disposal considerations

Not necessary.

#### 13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

### SECTION 14: Transport information

14.1 - 14.4 Not necessary

#### 14.5 Environmental hazards

not necessary

#### 14.6 Special precautions for user

not necessary

#### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

### SECTION 15: Regulatory Information

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

#### 15.2 Chemical safety assessment

not necessary for these small amounts

### SECTION 16: Other Information

#### 16.1 List of R, H and P phrases

##### 16.1.1 List of relevant R phrases

##### 16.1.2 List of relevant H phrases

##### 16.1.3 List of relevant P phrases

#### 16.2 Training Advice

Regular safety training.

#### 16.3 Recommended Restriction on Use

None

#### 16.4 Further Information

**Bioline Reagents Ltd** provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

**Bioline Reagents Ltd** makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly **Bioline Reagents Ltd** will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

#### 16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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

### 1.1 Product identifier

Product form: Mixture  
Product name: 1 - 8 mL Proteinase K Buffer PR  
Cat. No.: BIO-52062, BIO-52063, BIO-52064, BIO-52065, BIO-52066 & BIO-520647

REACH Registration number(s): see SECTION 3.1/3.2 or  
A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

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

#### Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC

0 The exposure scenario is integrated into sections 1-16.

#### Uses advised against

not described

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

Bioline Reagents Ltd.  
Humber Road  
London  
NW2 6EW  
United Kingdom  
T: +44 (0)20 8830 5300  
F: +44 (0)20 8452 2822

E-mail: [info.uk@bioline.com](mailto:info.uk@bioline.com)

### 1.4 Emergency telephone number

+49 (0) 7611 9240 (Germany)  
(24 hours, 7 days)

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

#### 1 - 8 mL Proteinase K Buffer PR

*Directive 1999/45/EC*

Symbols - do not need labelling as hazardous

*CLP Directive 1272/2008/EC*

GHS pictograms do not need labelling as hazardous  
Signal word -

No hazard class

### 2.2 Label elements

#### 1 - 8 mL Proteinase K Buffer PR

*Directive 1999/45/EC*

Symbols:

-  
-

*CLP Directive 1272/2008/EC*

GHS pictograms:  
do not need labelling as hazardous  
Signal word: -

### 2.3 Other hazards

#### Possible Hazards from physicochemical Properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC, 1999/45/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit.

An individual package has considerably less hazardous potential.

#### Information pertaining to particular Risks to Human and possible Symptoms

---

#### Information pertaining to particular Risks to the Environment

---

#### Other Hazards

---

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 1 - 8 mL Proteinase K Buffer PR

Chemical:	<i>glycerole</i>	CAS No.:	56-81-5
Concentration:	10 - 50 %		
Formula:	C <sub>3</sub> H <sub>8</sub> O <sub>3</sub>		
Pseudonym:	glycerin, 1,2,3-propanetriol		
REACH Reg. No.:	01-2119471987-18-xxxx		
EC No.:	200-289-5		
RTECS:	MA8050000	MFCID:	00004722
TSCA Inventory:	listed (1,2,3-Propanetriol)		
KE No.:	KE-29297		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

### 3.3 Remarks

---

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

#### 4.1.1 After SKIN Contact

Not necessary.

#### 4.1.2 After EYE Contact

Not necessary.

#### 4.1.3 After INHALATION of Vapours

Not necessary.

#### 4.1.4 After ORAL Intake

Not necessary.

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

Avoid inhalation of dust. ---

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

No additionally recommendations.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

None.



### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional Information

---

## SECTION 6: Accidental release measures

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

Do not breathe vapours. Not necessary.

### 6.2 Environmental precautions

not necessary

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

Clean working area with water. Flush used water into drains.

### 6.4 Reference to other sections

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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

The original product package allows a safe storage.

Storage class (VCI): 10  
WGK (DE): 0

### 7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 1 - 8 mL Proteinase K Buffer PR

Chemical: *glycerole*

CAS No.: 56-81-5

DNEL: 56inh mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

SUVA(CH) MAK value: 50 e\* mg/m<sup>3</sup>

### 8.2 Exposure controls

Not necessary. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

#### 8.2.1 Respiratory Protection

Not necessary.

#### 8.2.2 Hand Protection

Not necessary.

#### 8.2.3 Eye Protection

Not necessary.

#### 8.2.4 Skin Protection

Not necessary.

#### 8.2.5 Personal Hygiene

Information not necessary.

# Proteinase K Buffer PR

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 1 - 8 mL Proteinase K Buffer PR

Appearance: liquid

Color: colourless

Odor: alcoholic

Specific gravity:

1.11 g/cm<sup>3</sup>

### 9.2 Other information

#### Relevant Properties of Substance Group

---

#### 9.2.1

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Or when indicated in packing insert.

### 10.5 Incompatible materials

Not necessary.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 1 - 8 mL Proteinase K Buffer PR

Chemical: *glycerole*

CAS No.: 56-81-5

TSCA Inventory: listed (1,2,3-Propanetriol)

Exposure Routes: inhalation, skin and/or eye contact

Target Organs: Eyes, skin, respiratory system, kidneys

Symptoms: irritation eyes, skin, respiratory system; headache, nausea, vomiting; kidney injury

Korea Exist.Chem.Inventory: KE-29297

LD50<sub>ori rat</sub>: 12.6 g/kg

LD50<sub>drm rbt</sub>: >18.7 g/kg

TRGS 905 (DE): R<sub>F</sub> C

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 1 - 8 mL Proteinase K Buffer PR

Chemical: *glycerole*

CAS No.: 56-81-5

PNEC (fresh water): 0.885 mg/L

PNEC = Predicted No Effect Concentration

LC50<sub>fish/96h</sub>: >5000<sub>24h</sub> mg/L

EC50<sub>daphnia/48h</sub>: >10<sub>24h</sub> g/L

IC50<sub>scenedesmus quadricauda/72h</sub>: IC50<sub>7d</sub> >10 g/L

EC10<sub>pseudomonas putida/16h</sub>: EC5: >10 g/L

WGK (DE): 0

# Proteinase K Buffer PR

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

Dispersion coefficient<sub>(octanol-water)</sub> : -1.76  
Storage class (VCI): 10

- 12.2 Persistence and degradability**  
not necessary
- 12.3 Bioaccumulative potential**  
not necessary
- 12.4 Mobility in soil**  
not necessary
- 12.5 Results of PBT and vPvB assessment**  
no data available
- 12.6 Other adverse effects**  
no additional data available

### SECTION 13: Disposal considerations

Not necessary.

- 13.1 Waste treatment methods**  
GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

### SECTION 14: Transport information

14.1 - 14.4 Not necessary

- 14.5 Environmental hazards**  
not necessary
- 14.6 Special precautions for user**  
not necessary
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**  
not applicable

### SECTION 15: Regulatory Information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- 15.2 Chemical safety assessment**  
not necessary for these small amounts

### SECTION 16: Other Information

- 16.1 List of R, H and P phrases**
- 16.1.1 List of relevant R phrases**
- 16.1.2 List of relevant H phrases**
- 16.1.3 List of relevant P phrases**
- 16.2 Training Advice**  
Regular safety training.
- 16.3 Recommended Restriction on Use**  
None
- 16.4 Further Information**  
**Bioline Reagents Ltd** provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.  
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# Proteinase K Buffer PR

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 20/01/17 Version: 1.0

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product to which the information refers. Accordingly **Bioline Reagents Ltd** will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

### 16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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

### 1.1 Product identifier

Product form: Mixture  
 Product name: 1-75 mg Proteinase K (lyo)  
 Cat. No.: BIO-52062, BIO-52063, BIO-52064, BIO-52065, BIO-52066 & BIO-520647

REACH Registration number(s): see SECTION 3.1/3.2 or  
 A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.

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

#### Relevant identified uses

Product for analytical use.  
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0  
 The exposure scenario is integrated into sections 1-16.

#### Uses advised against

not described

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

Bioline Reagents Ltd.  
 Humber Road  
 London  
 NW2 6EW  
 United Kingdom  
 T: +44 (0)20 8830 5300  
 F: +44 (0)20 8452 2822

E-mail: info.uk@bioline.com

### 1.4 Emergency telephone number

+49 (0) 7611 9240 (Germany)  
 (24 hours, 7 days)

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

#### 1-75 mg Proteinase K (lyo)

Directive 1999/45/EC

Symbols

R 42



Xn

CLP Directive 1272/2008/EC

GHS pictograms



GHS07



GHS08

Signal word

DANGER

#### Hazard identification

H317  
 H334

#### Hazard classes/categories

Skin Sensitisation cat. 1A/1B  
 Respiratory Sensitisation cat. 1A/1B

### 2.2 Label elements

According 1999/45/EC small amounts of harmful and highly flammable preparations/mixtures have partly/completely exemption from labelling (no symbols F, O, Xn, Xi, N and no R and S phrases are necessary) until **25-125 mL/g**. This labelling exemption is NOT valid for sensibilizing mixtures.

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier (EU 1272/2008 Annex I - 1.5.1.2). Harmful chemicals/mixtures with signal word: **WARNING** must not be labelled with H and P phrases until **125 mL** (EU 1272/2008 Annex I - 1.5.2). This labelling exemption is NOT valid for sensibilizing substances.

### 1-75 mg Proteinase K (lyo)

Directive 1999/45/EC

Symbols:



Xn

R 42

May cause sensitization by inhalation.

S 22-26-36/37

Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves.

CLP Directive 1272/2008/EC

GHS pictograms:



GHS07



GHS08

Signal word: DANGER

H317, H334

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

P261S, P280sh, P302+352, P304+340, P333+313, P342+311, P363

Avoid breathing dust. Wear protective gloves/eye protection. IF ON SKIN: Wash with plenty of water/... IF INHALED: Remove person to fresh air and keep comfortable for breathing. If skin irritation or rash occurs: Get medical advice/attention. If experiencing respiratory symptoms: Call a POISON CENTER/doctor/... Wash contaminated clothing before reuse.

## 2.3 Other hazards

### Possible Hazards from physicochemical Properties

#### Information pertaining to particular Risks to Human and possible Symptoms

Cause after skin contact, impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Kit contains small amounts of enzymes, which may cause sensitization by direct and repeated contact.

#### Information pertaining to particular Risks to the Environment

PBT: not applicable

vPvB: not applicable

#### Other Hazards

---

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 1-75 mg Proteinase K (lyo)

Chemical:	<i>proteinase K (origin: tritirachium album)</i>	CAS No.:	39450-01-6
Concentration:	90 - 100 %		
Formula:	Enzyme Comm. No. 3.4.21.64, origin: tritirachium album serine		
EC No.:	254-457-8	Indice No.:	647-014-00-9
RTECS:	-	MFCD:	00132129
TSCA Inventory:	listed (CAS 102925-54-2)		
KE No.:	not listed		
acc. 1999/45/EC:	R 36/37/38-42	acc. CLP (GHS):	H317, H334

### 3.3 Remarks

List of R, H and P phrases: see section 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice. Take to a doctor, in a raised position if there are breathing difficulties.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing immediately. Rinse the affected skin or mucous membrane thoroughly for min. 15 minutes under running water. (If possible) use soap. Avoid neutralisation. Then apply a loose bandage.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).

#### 4.1.3 After INHALATION of Vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. Administer a Dexamethasone spray as soon as possible. Ensure quiet, warmth, and provide resuscitation if necessary. In the event of respiratory distress ensure that the patient inhales oxygen. Secure the breathing, heart and circulatory function.

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested.

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

Chronic Effects: May cause sensitization by skin contact, also in repeated contact of small amounts. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Avoid inhalation of dust. ---

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

After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. Inform patient respectively further measures and the possibility of long-term damages.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

Formation of hazardous and caustic vapour-air mixtures possible.

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic. Spray any vapours released with water. Retent fire water. Use only acid-resistant safety equipment.

For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.

### 5.4 Additional Information

Danger for environment **only in the event of a large-scale leakage** or formation of hazardous substances. ---

## SECTION 6: Accidental release measures

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

Do not breathe vapours. Wear suitable protective gloves (see 8.2.2). Wear eye protection. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.

### 6.2 Environmental precautions

not necessary

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

Bind any escaping liquid with inert absorbent. And dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into drains.

### 6.4 Reference to other sections

see information in section 5.4 ---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product. Use only in well-ventilated working areas.

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

The original product package allows a safe storage.

Storage class (VCI): 13  
WGK (DE): 1

### 7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 1-75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)*

CAS No.: 39450-01-6

SUVA(CH) MAK value: 0,00006<sub>15min</sub> mg/m<sup>3</sup>

### 8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

#### 8.2.1 Respiratory Protection

Only if additional recommendations in test instruction or packing insert. Use for open access of these substances for example a protection filter, class A/AX.

#### 8.2.2 Hand Protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

#### 8.2.3 Eye Protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

#### 8.2.4 Skin Protection

Recommended to avoid contamination with these hazards.

#### 8.2.5 Personal Hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 1-75 mg Proteinase K (Iyo)

Appearance: solid (lyoph.)

Color: slightly grey

Odor: odorless

### 9.2 Other information

#### Relevant Properties of Substance Group

---

#### 9.2.1

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available



### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

Not necessary. Only if on label. Or when indicated in packing insert.

### 10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 1-75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)*

CAS No.: 39450-01-6

TSCA Inventory: listed (CAS 102925-54-2)

Japan CSCL/PRTR: not listed

Korea Exist.Chem.Inventory: not listed

Acute Effects: Cause after skin contact, impairments of health when ingested in small quantities.

Chronic Effects: May cause sensitization by skin contact, also in repeated contact of small amounts. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 1-75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)*

CAS No.: 39450-01-6

WGK (DE): 1

Storage class (VCI): 13

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

not necessary

### 12.4 Mobility in soil

not necessary

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no additional data available

## SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

### 13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains.

## SECTION 14: Transport information

14.1 - 14.4 Not necessary

### 14.5 Environmental hazards

not necessary, contains only small quantities of hazardous substances

### 14.6 Special precautions for user

not necessary

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

## SECTION 15: Regulatory Information

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

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013  
German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC  
TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011

### 15.2 Chemical safety assessment

not necessary for these small amounts

## SECTION 16: Other Information

### 16.1 List of R, H and P phrases

#### 16.1.1 List of relevant R phrases

R36/37/38 Irritating to eyes, respiratory system and skin.  
R42 May cause sensitization by inhalation.

#### 16.1.2 List of relevant H phrases

H317 May cause an allergic skin reaction.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### 16.1.3 List of relevant P phrases

P261S Avoid breathing dust.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280sh Wear protective gloves/eye protection.  
P302+352 IF ON SKIN: Wash with plenty of water/...  
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P333+313 If skin irritation or rash occurs: Get medical advice/attention.  
P342+311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...  
P363 Wash contaminated clothing before reuse.

### 16.2 Training Advice

Multiple safety training of staffs about danger and protection by using hazards in working area. Additionally training and introduction of staffs for using these products.

### 16.3 Recommended Restriction on Use

Only for professional user.

Look about employee restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!

Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or DE §§ 4 und 5 MuSchRIV)!

An individual package of this product or test kit has a moderate hazardous potential.

### 16.4 Further Information

**Bioline Reagents Ltd** provides the information contained herein in good faith being up-to-date of own realizations at revision time.

This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

**Bioline Reagents Ltd** makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly **Bioline Reagents Ltd** will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

### 16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated February 2015

SUVA .CH, Limits in air at work 2009, revised on 01.2009

# Proteinase K (lyo)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011  
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)