

BIO-52068  
BIO-52069  
BIO-52070

# ISOLATE II Plant 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 - 125 mL Lysis Buffer PA1  
Cat. No.: BIO-52068, BIO-52069 & BIO-52070

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 - 125 mL Lysis Buffer PA1

*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 - 125 mL Lysis Buffer PA1

*Directive 1999/45/EC*

Symbols:

-

-

*CLP Directive 1272/2008/EC*

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

# Lysis Buffer PA1

## 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

### 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 - 125 mL Lysis Buffer PA1

Chemical: *sodium chloride*

CAS No.: 7647-14-5

Concentration: 5 - 10 %

Formula: NaCl

Pseudonym: salt

REACH Reg. No.: exempt, Annex V

EC No.: 231-598-3

RTECS: VZ4725000

TSCA Inventory: listed

KE No.: KE-31387

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.

# Lysis Buffer PA1

## 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

### 5.3 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 - 125 mL Lysis Buffer PA1

Chemical: sodium chloride

CAS No.: 7647-14-5

### 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 - 125 mL Lysis Buffer PA1

Appearance: liquid

Color: colourless

Odor: odorless

pH:

7.5-8.5

Specific gravity:

1.06 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 - 125 mL Lysis Buffer PA1

Chemical: *sodium chloride*  
TSCA Inventory: listed  
Korea Exist.Chem.Inventory: KE-31387  
LD50<sub>orl rat</sub>: 3000 mg/kg  
LD50<sub>drm rbt</sub>: 10 g/kg

CAS No.: 7647-14-5

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 5 - 125 mL Lysis Buffer PA1

Chemical: *sodium chloride*  
WGK (DE): 1  
Storage class (VCI): 12-13

CAS No.: 7647-14-5

### 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: 4 - 100 mL Lysis Buffer PA2  
Cat. No.: BIO-52068, BIO-52069 & BIO-52070

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

#### 4 - 100 mL Lysis Buffer PA2

*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

#### 4 - 100 mL Lysis Buffer PA2

*Directive 1999/45/EC*

Symbols:

-  
-

*CLP Directive 1272/2008/EC*

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

# Lysis Buffer PA2

## 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

### 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

#### 4 - 100 mL Lysis Buffer PA2

Chemical:	<i>dodecyl sulfate, sodium salt</i>	CAS No.:	151-21-3
Concentration:	1 - 2,5 %		
Formula:	C <sub>12</sub> H <sub>25</sub> NaO <sub>4</sub> S		
Pseudonym:	sodium lauryl sulfate, sulfuric acid monododecyl ester sodium salt		
REACH Reg. No.:	01-2119489461-32-xxxx		
EC No.:	205-788-1		
RTECS:	WT1050000	MFCD:	00036175
TSCA Inventory:	listed		
KE No.:	KE-21884		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

Chemical:	<i>sodium chloride</i>	CAS No.:	7647-14-5
Concentration:	1 - 5 %		
Formula:	NaCl		
Pseudonym:	salt		
REACH Reg. No.:	exempt, Annex V		
EC No.:	231-598-3		
RTECS:	VZ4725000		
TSCA Inventory:	listed		
KE No.:	KE-31387		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

Chemical:	<i>chemicals/mixture &lt; 2%, not hazardous</i>	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):

2

#### 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

##### 4 - 100 mL Lysis Buffer PA2

Chemical: *dodecyl sulfate, sodium salt*

CAS No.: 151-21-3

NIOSH: not listed

OSHA: not listed

Chemical: *sodium chloride*

CAS No.: 7647-14-5

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

CAS No.: -

# Lysis Buffer PA2

## 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

### 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

#### 4 - 100 mL Lysis Buffer PA2

Appearance: liquid	Color: colourless	Odor: odorless
pH:	7.5-8.5	
Specific gravity:	1.03 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.

#### 4 - 100 mL Lysis Buffer PA2

Chemical:	<i>dodecyl sulfate, sodium salt</i>	CAS No.: 151-21-3
TSCA Inventory:	listed	California Proposition 65 List: not listed
Australia NICNAS:	not listed	Canada CEPA 1999: DSL yes
Japan CSCL/PRTR:	PRTR - Class I Designated Chemical Substance	
Japan PDSCL:	not listed	Japan ISHL: not listed
South Korea TCCA:	not listed	
Korea Exist.Chem.Inventory:	KE-21884	
LD50 <sub>orl rat</sub> :	1288 mg/kg	
LC50 <sub>inh rat</sub> :	3900 <sub>1h</sub> mg/m <sup>3</sup>	

# Lysis Buffer PA2

## 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

LD50<sub>drm rbt</sub> : 10 g/kg

Chemical: *sodium chloride*  
TSCA Inventory: listed  
Korea Exist.Chem.Inventory: KE-31387  
LD50<sub>ori rat</sub> : 3000 mg/kg  
LD50<sub>drm rbt</sub> : 10 g/kg

CAS No.: 7647-14-5

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.

#### 4 - 100 mL Lysis Buffer PA2

Chemical: *dodecyl sulfate, sodium salt*  
LC50<sub>daphnia magna/48h</sub> : 6.3 mg/L  
LC50<sub>fish/96h</sub> : 1.31-22.5 mg/L  
WGK (DE): 2  
Dispersion coefficient<sub>(octanol-water)</sub> : 1.6  
Storage class (VCI): 12-13

CAS No.: 151-21-3

Chemical: *sodium chloride*  
WGK (DE): 1  
Storage class (VCI): 12-13

CAS No.: 7647-14-5

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)

# Precipitation Buffer PL3

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

#### 1.1 Product identifier

Product form: Mixture  
Product name: 1 - 25 mL Precipitation Buffer PL3  
Cat. No.: BIO-52068, BIO-52069 & BIO-52070

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 - 25 mL Precipitation Buffer PL3

*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 - 25 mL Precipitation Buffer PL3

*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

#### 1 - 25 mL Precipitation Buffer PL3

Chemical: acetate buffer solution

CAS No.: -

Concentration: 45 - 60 %

Formula:  $\text{CH}_3\text{COOH}/\text{Me}\cdot\text{H}_2\text{O}$

TSCA Inventory: all listed

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

---

## 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):

#### 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 - 25 mL Precipitation Buffer PL3

Chemical: *acetate buffer solution*

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

1 - 25 mL Precipitation Buffer PL3

Appearance: liquid

Color: colourless

Odor: acetic

pH:

5-6

Specific gravity:

1.19 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 - 25 mL Precipitation Buffer PL3

Chemical: *acetate buffer solution*

CAS No.: -

TSCA Inventory: all listed

Korea Exist.Chem.Inventory: listed

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 1 - 25 mL Precipitation Buffer PL3

Chemical: *acetate buffer solution*

CAS No.: -

Storage class (VCI): 12

### 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: 5 - 125 mL Binding Buffer PB  
 Cat. No.: BIO-52068, BIO-52069 & BIO-52070

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

#### 6 - 125 mL Binding Buffer PB

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

### 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).

# Binding Buffer PB

## Safety Data Sheet

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

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### 6 - 125 mL Binding Buffer PB

Directive 1999/45/EC

Symbols:

-  
-

S 16

Keep away from sources of ignition — No smoking.

CLP Directive 1272/2008/EC

GHS pictograms:



GHS02



GHS07

Signal word: WARNING

### 2.3 Other hazards

#### Possible Hazards from physicochemical Properties

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

---

#### Other Hazards

---

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 6 - 125 mL Binding Buffer PB

Chemical:	<i>guanidine hydrochloride</i>	CAS No.:	50-01-1
Concentration:	24 - 36 %		
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	acc. CLP (GHS):	H302

Chemical:	<i>ethanol</i> (denatured with MEK, acc. 3199/93/EC)	CAS No.:	64-17-5
Concentration:	35 - 55 %		
Formula:	C <sub>2</sub> H <sub>6</sub> O		
Pseudonym:	ethyl alcohol, methylated spirit		
REACH Reg. No.:	01-2119457610-43-xxxx		
EC No.:	200-578-6	Indice No.:	603-002-00-5
RTECS:	KQ6300000	MFCD:	00003568
TSCA Inventory:	listed		
KE No.:	KE-13217		
acc. 1999/45/EC:	R 10	acc. CLP (GHS):	H226

### 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.

# Binding Buffer PB

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### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 6 - 125 mL Binding Buffer PB

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

NIOSH: not listed

OSHA: not listed

Chemical: *ethanol*

CAS No.: 64-17-5

DNEL: 950<sub>inh-sys</sub> mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): 500 mL/m<sup>3</sup> / 960 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: 500 ppm / 960 mg/m<sup>3</sup>

NIOSH: TWA 1000 ppm / 1900 mg/m<sup>3</sup>

OSHA: TWA 1000 ppm / 1900 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

#### 6 - 125 mL Binding Buffer PB

Appearance: liquid

Color: yellow

Odor: alcoholic

pH: 5-7

Flash point: 23 °C

Specific gravity: 1.01 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.

##### 6 - 125 mL Binding Buffer PB

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 ISHL:	not listed
Japan PDSCL:	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> :	5.34 <sub>h</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>ethanol</i>	CAS No.:	64-17-5
TSCA Inventory:	listed	California Proposition 65 List:	not listed
ACGIH:	1000 ppm		
Exposure Routes:	inhalation, ingestion, skin and/or eye contact		
Target Organs:	Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system		
Symptoms:	irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic		
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	not listed	Japan ISHL:	listed ≥0,1%/≥0,1%, Article 57-2 (SDS required)
Japan PDSCL:	not listed		
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-13217		
LD50 <sub>orl rat</sub> :	6200 mg/kg		
LC <sub>Lowihl</sub> gpg:	21.9 g/m <sup>3</sup>		
LC <sub>Loworl</sub> hmn:	1400 mg/kg		
LC50 <sub>ihl mouse</sub> :	394 <sub>h</sub> g/m <sup>3</sup>		
LC50 <sub>ihl rat</sub> :	20 <sub>10h</sub> g/m <sup>3</sup>		
LD50 <sub>drm rbt</sub> :	20 000 mg/kg		
LD50 <sub>oral mouse</sub> :	3450 mg/kg		

TRGS 905 (DE): K5, M5, R<sub>F</sub> C

# Binding Buffer PB

## Safety Data Sheet

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## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 6 - 125 mL Binding Buffer PB

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>ethanol</i>	CAS No.:	64-17-5
PNEC(fresh water) :	0.96 mg/L		
PNEC = Predicted No Effect Concentration			
LC50 <sub>daphnia magna/48h</sub> :	>100 mg/L		
LC50 <sub>pimephales promelas/96h</sub> :	13400 - 15100 mg/L		
LC50 <sub>leuciscus idus/96h</sub> :	8140 <sub>48h</sub> mg/L		
LC50 <sub>fish/96h</sub> :	13 g/L		
EC50 <sub>daphnia/48h</sub> :	9.3-14.2 g/L		
IC50 <sub>scenedesmus quadricauda/72h</sub> :	5000 <sub>7d</sub> mg/L		
EC10 <sub>pseudomonas putita/16h</sub> :	EC5:6500 mg/L		
WGK (DE):	1	WGK No.:	0096
Dispersion coefficient <sub>(octanol-water)</sub> :	-0.31		
Storage class (VCI):	3		

### 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** ( $\leq 30$  mL/ $\Sigma \leq 1$  L) = ADR/ IATA E1

or

<b>14.1 UN number:</b>	<b>1993</b>	<b>14.2 UN proper shipping name:</b>	<b>Flammable liquid, n.o.s. (ethanol mixture)</b>
<b>14.3 Class:</b>	<b>3</b>	<b>14.4 Packing group:</b>	<b>III</b>

#### Road transport

Classification code:	F1	Tunnel restriction code:	E
Limited Quantity:	5 L	Special instructions:	640E
Excepted Quantity:	E 1		

#### Air transport

PAX:	355	max. weight PAX:	60 L
CAO:	366	max. weight CAO:	220 L

#### Maritime transport

EmS:	F-E, S-E	Storage category:	A
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### 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.

#### 16.1.2 List of relevant H phrases

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.

#### 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.  
P301+312 IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.  
P330 Rinse mouth.  
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 - 125 mL Wash Buffer PAW1  
 Cat. No.: BIO-52068, BIO-52069 & BIO-52070

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

6 - 125 mL Wash Buffer PAW1

Directive 1999/45/EC

Symbols

R 36



Xi

CLP Directive 1272/2008/EC

GHS pictograms



GHS02

GHS07

Signal word

WARNING

#### Hazard identification

H226  
 H302  
 H319  
 H336

#### Hazard classes/categories

Flammable Liquid cat. 3  
 Acute Tox. 4 oral  
 Eye Irritation cat. 2  
 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

# Wash Buffer PAW1

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phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2).

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

### 6 - 125 mL Wash Buffer PAW1

Directive 1999/45/EC

Symbols:



Xi

R 36

Irritating to eyes.

S 16-26-39

Keep away from sources of ignition — No smoking. 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

---

### Other Hazards

---

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 6 - 125 mL Wash Buffer PAW1

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

Concentration: 36 - 50 %

Formula:  $\text{CH}_6\text{ClN}_3$

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

# Wash Buffer PAW1

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Chemical:	2-propanol	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.

# Wash Buffer PAW1

## 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

### 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.

### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 6 - 125 mL Wash Buffer PAW1

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.

# Wash Buffer PAW1

## 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

#### 6 - 125 mL Wash Buffer PAW1

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.

#### 6 - 125 mL Wash Buffer PAW1

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>inl 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>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>Low orl hmn</sub> :	3570 mg/kg		

# Wash Buffer PAW1

## 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

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):	R <sub>F</sub> C

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 6 - 125 mL Wash Buffer PAW1

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>2-propanol</i>	CAS No.: 67-63-0
PNEC <sub>(fresh water)</sub> :	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 putita/16h</sub> :	EC5: 1050 mg/L	
WGK (DE):	1	WGK No.: 0135
Dispersion coefficient <sub>(octanol-water)</sub> :	0.05	
Storage class (VCI):	3	

### 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** ( $\leq 30$  mL/ $\Sigma \leq 1$  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	Tunnel restriction code:	E
Limited Quantity:	5 L	Special instructions:	640E
Excepted Quantity:	E 1		

#### Air transport

PAX:	355	max. weight PAX:	60 L
CAO:	366	max. weight CAO:	220 L

#### Maritime transport

EmS:	F-E, S-E	Storage category:	A
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# Wash Buffer PAW1

## 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

### 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

# Wash Buffer PAW1

## 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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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 PAW2 (conc.)  
Cat. No.: BIO-52068, BIO-52069 & BIO-52070  
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

#### 6 - 50 mL Wash Buffer PAW2 (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

#### 6 - 50 mL Wash Buffer PAW2 (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

#### 6 - 50 mL Wash Buffer PAW2 (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

6 - 50 mL Wash Buffer PAW2 (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

6 - 50 mL Wash Buffer PAW2 (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

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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

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.

#### 6 - 50 mL Wash Buffer PAW2 (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.

#### 6 - 50 mL Wash Buffer PAW2 (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 - 30 mL Elution Buffer PG  
Cat. No.: BIO-52068, BIO-52069 & BIO-52070

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

#### 13 - 30 mL Elution Buffer PG

*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

#### 13 - 30 mL Elution Buffer PG

*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

#### 13 - 30 mL Elution Buffer PG

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

13 - 30 mL Elution Buffer PG

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

13 - 30 mL Elution Buffer PG

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.

#### 13 - 30 mL Elution Buffer PG

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.

#### 13 - 30 mL Elution Buffer PG

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.

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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: 1 - 5 x 80 U, Size C, RNase-free DNase I (Iyo)  
 Cat. No.: BIO-52071, BIO-52072, BIO-52073, BIO-52074, BIO-52075, BIO-52076 & BIO-52077  
 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

80 U, Size C, RNase-free DNase I (Iyo)

Directive 1999/45/EC

Symbols

R 42/43



Xn

CLP Directive 1272/2008/EC

GHS pictograms



GHS07

GHS08

Signal word

DANGER

**Hazard identification**

**Hazard classes/categories**

H317

Skin Sensitisation cat. 1A/1B

H334

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 sensiblizing 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 sensiblizing substances.

### 80 U, Size C, RNase-free DNase I (Iyo)

Directive 1999/45/EC  
Symbols:



Xn  
R 42/43  
May cause sensitization by inhalation and skin contact.

S 22-24  
Do not breathe dust. Avoid contact with skin.

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, P272, P280sh, P302+352, P304+340, P333+313, P342+311, P363  
Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace. 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

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## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 80 U, Size C, RNase-free DNase I (Iyo)

Chemical:	<i>rDNase</i>	CAS No.:	9003-98-9
Concentration:	90 - 100 %		
Formula:	Enzyme Comm. No. 3.1.21.1, origin: cloned		
Pseudonym:	Nuclease, deoxyribo-		
EC No.:	232-667-0		
RTECS:	RF0750000		
TSCA Inventory:	listed		
KE No.:	KE-09612		
acc. 1999/45/EC:	R 42/43	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

**80 U, Size C, RNase-free DNase I (Iyo)**  
Chemical: *rDNase*

CAS No.: 9003-98-9

### 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

**80 U, Size C, RNase-free DNase I (Iyo)**  
Appearance: solid (Iyoph.)

Color: white

Odor: odorless

### 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

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.

#### 80 U, Size C, RNase-free DNase I (Iyo)

Chemical: *rDNase*

CAS No.: 9003-98-9

TSCA Inventory: listed

Japan CSCL/PRTR: not listed

Korea Exist.Chem.Inventory: KE-09612

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.

#### 80 U, Size C, RNase-free DNase I (Iyo)

Chemical: *rDNase*

CAS No.: 9003-98-9

WGK (DE): 1 WGK No.: n.n.

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

R42/43 May cause sensitization by inhalation and skin contact.

#### 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

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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

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)