

**Safety Data Sheets**

according to Regulation (EC) No 1907/2006

**VisionArray Cytology DNA Extraction Kit**

Product code: VI-0002

**Overview on Safety Data Sheets included**

The document includes Safety Data Sheets for the following kit components:

<b>Code</b>	<b>Component</b>
WB-0019	DNA Wash Buffer
WB-0020	Proteinase K Buffer
WB-0021	Elution buffer
WB-0022	Pre-Lysis Buffer
WB-0023	Cell Lysis Buffer
ES-0006	Proteinase K

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**DNA Wash Buffer**

Revision date: 08.06.2017

Product code: WB-0019

Page 1 of 6

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

DNA Wash Buffer

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

The product is intended for professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	42 life sciences GmbH & Co. KG	
Street:	Fischkai 1	
Place:	D-27572 Bremerhaven	
Telephone:	+49 471 4832-500	Telefax: +49 471 4832-308
e-mail:	info@42ls.com	
Internet:	www.42ls.com	

**1.4. Emergency telephone number:** +49 471 4832-500  
9am - 5pm (CET)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

**2.2. Label elements****2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**DNA Wash Buffer**

Revision date: 08.06.2017

Product code: WB-0019

Page 2 of 6

**5.2. Special hazards arising from the substance or mixture**

Non-flammable.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

No special measures are necessary.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

**Advice on storage compatibility**

No special measures are necessary.

**Further information on storage conditions**

Store, tightly closed, in the original vessel at conditions indicated on the label.

**7.3. Specific end use(s)**

The product is intended for professional use.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls****Protective and hygiene measures**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**DNA Wash Buffer**

Revision date: 08.06.2017

Product code: WB-0019

Page 3 of 6

recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: liquid  
 Colour: colourless  
 Odour: odourless

**Test method**

pH-Value: not determined

**Changes in the physical state**

Melting point: not determined  
 Initial boiling point and boiling range: not determined  
 Flash point: not determined

**Flammability**

Solid: not applicable  
 Gas: not applicable

Lower explosion limits: not determined  
 Upper explosion limits: not determined

**Auto-ignition temperature**

Solid: not applicable  
 Gas: not applicable

Decomposition temperature: not determined

**Oxidizing properties**

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

**Solubility in other solvents**

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

**9.2. Other information**

Solid content: not determined

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### DNA Wash Buffer

Revision date: 08.06.2017

Product code: WB-0019

Page 4 of 6

The product is stable under storage at normal ambient temperatures.

#### **10.3. Possibility of hazardous reactions**

No known hazardous reactions.

#### **10.4. Conditions to avoid**

none

#### **10.5. Incompatible materials**

No information available.

#### **10.6. Hazardous decomposition products**

No known hazardous decomposition products.

### SECTION 11: Toxicological information

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

Based on available data, the classification criteria are not met.

##### **Irritation and corrosivity**

Based on available data, the classification criteria are not met.

##### **Sensitising effects**

Based on available data, the classification criteria are not met.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

##### **STOT-single exposure**

Based on available data, the classification criteria are not met.

##### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

##### **Aspiration hazard**

Based on available data, the classification criteria are not met.

##### **Additional information on tests**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### SECTION 12: Ecological information

#### **12.1. Toxicity**

The product is not: Ecotoxic.

#### **12.2. Persistence and degradability**

The product has not been tested.

#### **12.3. Bioaccumulative potential**

The product has not been tested.

#### **12.4. Mobility in soil**

The product has not been tested.

#### **12.5. Results of PBT and vPvB assessment**

The product has not been tested.

#### **12.6. Other adverse effects**

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### DNA Wash Buffer

Revision date: 08.06.2017

Product code: WB-0019

Page 5 of 6

#### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

#### Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

#### Inland waterways transport (ADN)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

#### Marine transport (IMDG)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No information available.

#### 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

##### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**DNA Wash Buffer**

Revision date: 08.06.2017

Product code: WB-0019

Page 6 of 6

(European Agreement concerning the International Carriage of Dangerous Goods by Road )

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

---

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Proteinase K Buffer**

Revision date: 08.06.2017

Product code: WB-0020

Page 1 of 6

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Proteinase K Buffer

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

The product is intended for professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	42 life sciences GmbH & Co. KG	
Street:	Fischkai 1	
Place:	D-27572 Bremerhaven	
Telephone:	+49 471 4832-500	Telefax: +49 471 4832-308
e-mail:	info@42ls.com	
Internet:	www.42ls.com	

**1.4. Emergency telephone number:**+49 471 4832-500  
9am - 5pm (CET)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

**2.2. Label elements****2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Proteinase K Buffer**

Revision date: 08.06.2017

Product code: WB-0020

Page 2 of 6

**5.2. Special hazards arising from the substance or mixture**

Non-flammable.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protection equipment.

**6.2. Environmental precautions**

No special environmental measures are necessary. Clean contaminated articles and floor according to the environmental legislation.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

No special measures are necessary.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep container tightly closed.

**Advice on storage compatibility**

No special measures are necessary.

**Further information on storage conditions**

Store, tightly closed, in the original vessel at conditions indicated on the label.

**7.3. Specific end use(s)**

The product is intended for professional use.

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

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Proteinase K Buffer**

Revision date: 08.06.2017

Product code: WB-0020

Page 3 of 6

**DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
56-81-5	glycerole		
Worker DNEL,	inhalation		56 mg/m <sup>3</sup>

**PNEC values**

CAS No	Substance	
Environmental compartment	Value	
56-81-5	glycerole	
Freshwater	0.885 mg/l	

**8.2. Exposure controls**

**Protective and hygiene measures**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: liquid  
 Colour: colourless  
 Odour: Alcohol

**Test method**

pH-Value: not determined

**Changes in the physical state**

Melting point: not determined  
 Initial boiling point and boiling range: not determined  
 Flash point: not determined

**Flammability**

Solid: not applicable  
 Gas: not applicable

Lower explosion limits: not determined  
 Upper explosion limits: not determined

**Auto-ignition temperature**

Solid: not applicable  
 Gas: not applicable

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K Buffer

Revision date: 08.06.2017

Product code: WB-0020

Page 4 of 6

Decomposition temperature: not determined

#### **Oxidizing properties**

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Water solubility: insoluble

#### **Solubility in other solvents**

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

#### **9.2. Other information**

Solid content: not determined

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

#### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

#### **10.3. Possibility of hazardous reactions**

No known hazardous reactions.

#### **10.4. Conditions to avoid**

none

#### **10.5. Incompatible materials**

No information available.

#### **10.6. Hazardous decomposition products**

No known hazardous decomposition products.

### SECTION 11: Toxicological information

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

Based on available data, the classification criteria are not met.

##### **Irritation and corrosivity**

Based on available data, the classification criteria are not met.

##### **Sensitising effects**

Based on available data, the classification criteria are not met.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

##### **STOT-single exposure**

Based on available data, the classification criteria are not met.

##### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

##### **Aspiration hazard**

Based on available data, the classification criteria are not met.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K Buffer

Revision date: 08.06.2017

Product code: WB-0020

Page 5 of 6

#### Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

#### 12.6. Other adverse effects

No information available.

#### Further information

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Advice on disposal

Dispose of waste according to applicable legislation.

##### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

14.1. UN number: not applicable

14.2. UN proper shipping name: not applicable

#### Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

#### Inland waterways transport (ADN)

14.1. UN number: not applicable

14.2. UN proper shipping name: not applicable

14.3. Transport hazard class(es): not applicable

14.4. Packing group: -

#### Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

#### Marine transport (IMDG)

14.1. UN number: not applicable

14.2. UN proper shipping name: not applicable

14.3. Transport hazard class(es): not applicable

14.4. Packing group: -

#### Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: not applicable

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K Buffer

Revision date: 08.06.2017

Product code: WB-0020

Page 6 of 6

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

No information available.

**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**

**National regulatory information**

Water contaminating class (D): - - not water contaminating

**15.2. Chemical safety assessment**

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

### SECTION 16: Other information

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Elution Buffer**

Revision date: 08.06.2017

Product code: WB-0021

Page 1 of 6

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Elution Buffer

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

The product is intended for professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	42 life sciences GmbH & Co. KG	
Street:	Fischkai 1	
Place:	D-27572 Bremerhaven	
Telephone:	+49 471 4832-500	Telefax: +49 471 4832-308
e-mail:	info@42ls.com	
Internet:	www.42ls.com	

**1.4. Emergency telephone number:** +49 471 4832-500  
9am - 5pm (CET)

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

**2.2. Label elements****2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Elution Buffer

Revision date: 08.06.2017

Product code: WB-0021

Page 2 of 6

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

Non-flammable.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### SECTION 6: Accidental release measures

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

Use personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

No special measures are necessary.

##### **Advice on protection against fire and explosion**

No special fire protection measures are necessary.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed.

##### **Advice on storage compatibility**

No special measures are necessary.

##### **Further information on storage conditions**

Store, tightly closed, in the original vessel at conditions indicated on the label.

#### **7.3. Specific end use(s)**

The product is intended for professional use.

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

#### **8.2. Exposure controls**

##### **Protective and hygiene measures**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

##### **Eye/face protection**

Wear eye/face protection.

##### **Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Elution Buffer

Revision date: 08.06.2017

Product code: WB-0021

Page 3 of 6

recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless
Odour:	odourless

#### Test method

pH-Value: not determined

#### Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: not determined

Flash point: not determined

#### Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: not determined

Upper explosion limits: not determined

#### Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

#### Oxidizing properties

Not oxidizing.

Vapour pressure: not determined

Density: not determined

Water solubility: easily soluble

#### Solubility in other solvents

not determined

Partition coefficient: not determined

Vapour density: not determined

Evaporation rate: not determined

### 9.2. Other information

Solid content: not determined

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Elution Buffer**

Revision date: 08.06.2017

Product code: WB-0021

Page 4 of 6

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Additional information on tests**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.6. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Elution Buffer

Revision date: 08.06.2017

Product code: WB-0021

Page 5 of 6

#### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

#### Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

#### Inland waterways transport (ADN)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

#### Marine transport (IMDG)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No information available.

#### 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

##### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Elution Buffer**

Revision date: 08.06.2017

Product code: WB-0021

Page 6 of 6

(European Agreement concerning the International Carriage of Dangerous Goods by Road )

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

---

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Pre-Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0022

Page 1 of 6

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Pre-Lysis Buffer

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

The product is intended for professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	42 life sciences GmbH & Co. KG	
Street:	Fischkai 1	
Place:	D-27572 Bremerhaven	
Telephone:	+49 471 4832-500	Telefax: +49 471 4832-308
e-mail:	info@42ls.com	
Internet:	www.42ls.com	

**1.4. Emergency telephone number:**+49 471 4832-500  
9am - 5pm (CET)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

**2.2. Label elements****2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

**After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.

**After ingestion**

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Pre-Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0022

Page 2 of 6

**5.2. Special hazards arising from the substance or mixture**

Non-flammable.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

No special measures are necessary.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

**Advice on storage compatibility**

No special measures are necessary.

**Further information on storage conditions**

Store, tightly closed, in the original vessel at conditions indicated on the label.

**7.3. Specific end use(s)**

The product is intended for professional use.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls****Protective and hygiene measures**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pre-Lysis Buffer

Revision date: 14.06.2017

Product code: WB-0022

Page 3 of 6

recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless
Odour:	odourless

#### Test method

pH-Value:	not determined
-----------	----------------

#### Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not determined

#### Flammability

Solid:	not applicable
Gas:	not applicable

Lower explosion limits:	not determined
Upper explosion limits:	not determined

#### Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
----------------------------	----------------

#### Oxidizing properties

Not oxidizing.

Vapour pressure:	not determined
------------------	----------------

Density:	not determined
----------	----------------

Water solubility:	easily soluble
-------------------	----------------

#### Solubility in other solvents

not determined

Partition coefficient:	not determined
------------------------	----------------

Vapour density:	not determined
-----------------	----------------

Evaporation rate:	not determined
-------------------	----------------

### 9.2. Other information

Solid content:	not determined
----------------	----------------

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Pre-Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0022

Page 4 of 6

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

Based on available data, the classification criteria are not met.

**Irritation and corrosivity**

Based on available data, the classification criteria are not met.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Additional information on tests**

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

**12.6. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Pre-Lysis Buffer

Revision date: 14.06.2017

Product code: WB-0022

Page 5 of 6

#### Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

#### Other applicable information (land transport)

No dangerous good in sense of these transport regulations.

#### Inland waterways transport (ADN)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### Other applicable information (inland waterways transport)

No dangerous good in sense of these transport regulations.

#### Marine transport (IMDG)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No information available.

#### 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

##### National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Pre-Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0022

Page 6 of 6

(European Agreement concerning the International Carriage of Dangerous Goods by Road )

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

---

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Cell Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0023

Page 1 of 7

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

**1.1. Product identifier**

Cell Lysis Buffer

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

**Use of the substance/mixture**

The product is intended for professional use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	42 life sciences GmbH & Co. KG	
Street:	Fischkai 1	
Place:	D-27572 Bremerhaven	
Telephone:	+49 471 4832-500	Telefax: +49 471 4832-308
e-mail:	info@42ls.com	
Internet:	www.42ls.com	

**1.4. Emergency telephone number:**

+49 471 4832-500  
9am - 5pm (CET)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No. 1272/2008**

Hazard categories:  
 Acute toxicity: Acute Tox. 4  
 Skin corrosion/irritation: Skin Irrit. 2  
 Serious eye damage/eye irritation: Eye Irrit. 2  
 Hazard Statements:  
 Harmful if swallowed.  
 Causes skin irritation.  
 Causes serious eye irritation.

**2.2. Label elements**

**Regulation (EC) No. 1272/2008**

**Hazard components for labelling**

guanadine hydrochloride, guanidinium chloride

**Signal word:** Warning

**Pictograms:**



**Hazard statements**

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

**Precautionary statements**

P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of water.
P332+P313	If skin irritation occurs: Get medical advice/attention.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cell Lysis Buffer

Revision date: 14.06.2017

Product code: WB-0023

Page 2 of 7

P362+P364 Take off contaminated clothing and wash it before reuse.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
50-01-1	guanadine hydrochloride, guanidinium chloride			40 - < 60 %
	200-002-3	607-148-00-0		
	Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2; H302 H319 H315			

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

Provide fresh air.

##### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

##### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

##### After ingestion

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

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

No information available.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

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

Non-flammable.

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Cell Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0023

Page 3 of 7

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

**Advice on storage compatibility**

No special measures are necessary.

**Further information on storage conditions**

Store, tightly closed, in the original vessel at conditions indicated on the label.

**7.3. Specific end use(s)**

The product is intended for professional use.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls****Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Cell Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0023

Page 4 of 7

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	light yellow
Odour:	odourless

**Test method**

pH-Value:	not determined
-----------	----------------

**Changes in the physical state**

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not determined

**Flammability**

Solid:	not applicable
Gas:	not applicable

Lower explosion limits:	not determined
Upper explosion limits:	not determined

**Auto-ignition temperature**

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	not determined
----------------------------	----------------

**Oxidizing properties**

Not oxidizing.

Vapour pressure:	not determined
Density:	not determined
Water solubility:	easily soluble

**Solubility in other solvents**

not determined

Partition coefficient:	not determined
Vapour density:	not determined
Evaporation rate:	not determined

**9.2. Other information**

Solid content:	not determined
----------------	----------------

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Cell Lysis Buffer**

Revision date: 14.06.2017

Product code: WB-0023

Page 5 of 7

No known hazardous reactions.

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

Harmful if swallowed.

**ATEmix calculated**

ATE (oral) 1000,0 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
50-01-1	guanadine hydrochloride, guanidinium chloride				
	oral	ATE 500 mg/kg			

**Irritation and corrosivity**

Causes skin irritation.

Causes serious eye irritation.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information**

**12.1. Toxicity**

The product is not: Ecotoxic.

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The product has not been tested.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cell Lysis Buffer

Revision date: 14.06.2017

Product code: WB-0023

Page 6 of 7

#### **12.6. Other adverse effects**

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

##### **Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

#### **Inland waterways transport (ADN)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

##### **Other applicable information (inland waterways transport)**

No dangerous good in sense of these transport regulations.

#### **Marine transport (IMDG)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### **Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

#### **14.6. Special precautions for user**

No information available.

#### **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**

##### **National regulatory information**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Cell Lysis Buffer

Revision date: 14.06.2017

Product code: WB-0023

Page 7 of 7

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 1 - slightly water contaminating

#### **15.2. Chemical safety assessment**

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

### SECTION 16: Other information

#### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

#### **Relevant H and EUH statements (number and full text)**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

#### **Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K

Revision date: 08.06.2017

Product code: ES-0006

Page 1 of 7

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

##### 1.1. Product identifier

Proteinase K

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

###### Use of the substance/mixture

The product is intended for professional use.

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

Company name:	42 life sciences GmbH & Co. KG	
Street:	Fischkai 1	
Place:	D-27572 Bremerhaven	
Telephone:	+49 471 4832-500	Telefax: +49 471 4832-308
e-mail:	info@42ls.com	
Internet:	www.42ls.com	

##### 1.4. Emergency telephone number:

+49 471 4832-500  
9am - 5pm (CET)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1A

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause respiratory irritation.

##### 2.2. Label elements

###### Regulation (EC) No. 1272/2008

###### Hazard components for labelling

proteases with the exception of those specified elsewhere in this Annex

**Signal word:** Danger

**Pictograms:**



###### Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

###### Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
------	---

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K

Revision date: 08.06.2017

Product code: ES-0006

Page 2 of 7

P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
39450-01-6	proteases with the exception of those specified elsewhere in this Annex			80 - < 100 %
	254-457-8	647-014-00-9		
	Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1A, STOT SE 3; H315 H319 H334 H317 H335			

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

##### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

##### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

##### After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

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

No information available.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K

Revision date: 08.06.2017

Product code: ES-0006

Page 3 of 7

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

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

Non-flammable.

#### **5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

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

Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

#### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid dust formation. Do not breathe dust.

##### **Advice on protection against fire and explosion**

No special fire protection measures are necessary.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

##### **Advice on storage compatibility**

No special measures are necessary.

##### **Further information on storage conditions**

Store, tightly closed, in the original vessel at conditions indicated on the label.

#### **7.3. Specific end use(s)**

The product is intended for professional use.

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

#### **8.1. Control parameters**

#### **8.2. Exposure controls**

##### **Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Proteinase K**

Revision date: 08.06.2017

Product code: ES-0006

Page 4 of 7

**Protective and hygiene measures**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.  
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	light grey
Odour:	odourless

**Test method**

pH-Value:	not determined
-----------	----------------

**Changes in the physical state**

Melting point:	not determined
----------------	----------------

Initial boiling point and boiling range:	not determined
--	----------------

Flash point:	not applicable
--------------	----------------

**Flammability**

Solid:	not determined
--------	----------------

Gas:	not applicable
------	----------------

Lower explosion limits:	not determined
-------------------------	----------------

Upper explosion limits:	not determined
-------------------------	----------------

**Auto-ignition temperature**

Solid:	not determined
--------	----------------

Gas:	not applicable
------	----------------

Decomposition temperature:	not determined
----------------------------	----------------

**Oxidizing properties**

Not oxidizing.

Vapour pressure:	not determined
------------------	----------------

Density:	not determined
----------	----------------

Water solubility:	easily soluble
-------------------	----------------

**Solubility in other solvents**

not determined

Partition coefficient:	not determined
------------------------	----------------

Vapour density:	not determined
-----------------	----------------

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K

Revision date: 08.06.2017

Product code: ES-0006

Page 5 of 7

Evaporation rate: not determined

#### **9.2. Other information**

Solid content: not determined

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

#### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

#### **10.3. Possibility of hazardous reactions**

No known hazardous reactions.

#### **10.4. Conditions to avoid**

none

#### **10.5. Incompatible materials**

No information available.

#### **10.6. Hazardous decomposition products**

No known hazardous decomposition products.

### SECTION 11: Toxicological information

#### **11.1. Information on toxicological effects**

##### **Acute toxicity**

Based on available data, the classification criteria are not met.

##### **Irritation and corrosivity**

Causes skin irritation.

Causes serious eye irritation.

##### **Sensitising effects**

May cause an allergic skin reaction.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

Based on available data, the classification criteria are not met.

##### **STOT-single exposure**

May cause respiratory irritation. ( (proteases with the exception of those specified elsewhere in this Annex))

##### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

##### **Aspiration hazard**

Based on available data, the classification criteria are not met.

##### **Additional information on tests**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

### SECTION 12: Ecological information

#### **12.1. Toxicity**

The product is not: Ecotoxic.

#### **12.2. Persistence and degradability**

The product has not been tested.

#### **12.3. Bioaccumulative potential**

The product has not been tested.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K

Revision date: 08.06.2017

Product code: ES-0006

Page 6 of 7

#### **12.4. Mobility in soil**

The product has not been tested.

#### **12.5. Results of PBT and vPvB assessment**

The product has not been tested.

#### **12.6. Other adverse effects**

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

##### **Other applicable information (land transport)**

No dangerous good in sense of these transport regulations.

#### **Inland waterways transport (ADN)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

##### **Other applicable information (inland waterways transport)**

No dangerous good in sense of these transport regulations.

#### **Marine transport (IMDG)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### **Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number:** not applicable

**14.2. UN proper shipping name:** not applicable

**14.3. Transport hazard class(es):** not applicable

**14.4. Packing group:** -

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

#### **14.6. Special precautions for user**

No information available.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Proteinase K

Revision date: 08.06.2017

Product code: ES-0006

Page 7 of 7

#### 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

##### National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Water contaminating class (D):	1 - slightly water contaminating
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%

#### Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

#### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*