

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

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

### 1.1 Product identifier

REF 740741.2  
 Product name NucleoSpin 96 Tissue (2x96)

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 x 100 mL B5
- 1 x 60 mL BE
- 1 x 50 mL BQ1
- 1 x 125 mL BW
- 1 x 8 mL PB
- 2 x 75 mg Proteinase K (lyo)
- 1 x 50 mL T1

### 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

**Manufactured by:**  
 MACHEREY-NAGEL GmbH & Co. KG  
 Valenciener Str. 11, 52355 Düren, GERMANY  
 Tel.: +49 2421 969 0

E-mail: [sds@mn-net.com](mailto:sds@mn-net.com) ([msds@mn-net.com](mailto:msds@mn-net.com))

### 1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.  
 DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

You find our current versions of SDS (22 languages) in Internet: <http://www.mn-net.com/SDS>

## SECTION 2: Hazard identification

### 2.0 Classification of the complete product



|                              |                                  |
|------------------------------|----------------------------------|
| Signal word                  | DANGER                           |
| <b>Hazard identification</b> | <b>Hazard classes/categories</b> |
| H226                         | Flam. Liq. 3                     |
| H302                         | Acute Tox. 4 oral                |
| H315                         | Skin Irrit. 2                    |
| H319                         | Eye Irrit. 2                     |
| H334                         | Resp. Sens. 1                    |
| H336, H335                   | STOT SE 3                        |

### 2.1 Classification of the substance or mixture

100 mL B5

Do not need labelling as hazardous

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Signal word -

No hazard class

**60 mL BE**

Signal word Do not need labelling as hazardous

No hazard class -

**50 mL BQ1**



GHS07

Signal word WARNING

| Hazard identification | Hazard classes/categories |
|-----------------------|---------------------------|
| H302                  | Acute Tox. 4 oral         |
| H315                  | Skin Irrit. 2             |
| H319                  | Eye Irrit. 2              |

**125 mL BW**



GHS02 GHS07

Signal word WARNING

| Hazard identification | Hazard classes/categories |
|-----------------------|---------------------------|
| H226                  | Flam. Liq. 3              |
| H302                  | Acute Tox. 4 oral         |
| H319                  | Eye Irrit. 2              |
| H336, H335            | STOT SE 3                 |

**8 mL PB**

Signal word Do not need labelling as hazardous

No hazard class -

**75 mg Proteinase K (Iyo)**



GHS07 GHS08

Signal word DANGER

| Hazard identification | Hazard classes/categories |
|-----------------------|---------------------------|
| H315                  | Skin Irrit. 2             |
| H319                  | Eye Irrit. 2              |
| H334                  | Resp. Sens. 1             |



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## 50 mL T1

Signal word

Do not need labelling as hazardous

-

No hazard class

## 2.2 Label elements

According **CLP directive** inner packages must be only labelled with GHS symbol(s) and product identifier(s) (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). This labelling exemption is NOT valid for sensiblizing substances. The irritant hazard should be eliminated, because of buffer chemicals inside.

### 100 mL B5

Do not need labelling as hazardous

Signal word: -

### 60 mL BE

Do not need labelling as hazardous

Signal word: -

### 50 mL BQ1



GHS07

Signal word: WARNING

### 125 mL BW



GHS02



GHS07

Signal word: WARNING

### 8 mL PB

Do not need labelling as hazardous

Signal word: -

### 75 mg Proteinase K (Iyo)



GHS07



GHS08

Signal word: DANGER

H334

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

P261sh, P342+311

Avoid breathing dust/vapours. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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## 50 mL T1

Do not need labelling as hazardous  
Signal word: -

## 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. ---

### Information pertaining to particular risks to human and possible symptoms

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

Kit contains small amounts of enzymes: May cause allergy or asthma symptoms or breathing difficulties if inhaled. -

### Information pertaining to particular risks to the environment

PBT: not applicable

vPvB: not applicable

### Other hazards

---

## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 100 mL B5

Chemical: *chemicals/mixture < 1%*

CAS No.: -

Classification: No criteria for classification or naming of chemical not required.

TSCA Inventory: all listed, <1%

KE No.: listed

Concentration: 0.1 - <1 %

acc. CLP (GHS): The criteria for classification are not fulfilled.

#### 60 mL BE

Chemical: *chemicals/mixture < 1%*

CAS No.: -

Classification: No criteria for classification or naming of chemical not required.

TSCA Inventory: all listed, <1%

KE No.: listed

Concentration: 0.1 - <1 %

acc. CLP (GHS): The criteria for classification are not fulfilled.

#### 50 mL BQ1

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

Formula: CH<sub>6</sub>ClN<sub>3</sub>

Pseudonym: guanidinium chloride

TSCA Inventory: listed

REACH Reg. No.: 01-2119977063-35-0005

EC No.: 200-002-3

Indice No.: 607-148-00-0

RTECS: MF4300000

MFCD: 00013026

KE No.: KE-18111

Concentration: 50 - <66 %

acc. CLP (GHS): H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

#### 125 mL BW

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

Formula: CH<sub>6</sub>ClN<sub>3</sub>

Pseudonym: guanidinium chloride

TSCA Inventory: listed

REACH Reg. No.: 01-2119977063-35-0005

EC No.: 200-002-3

Indice No.: 607-148-00-0

RTECS: MF4300000

MFCD: 00013026

KE No.: KE-18111

Concentration: 36 - <50 %

acc. CLP (GHS): H302, Acute Tox. 4 oral, H319, Eye Irrit. 2

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Chemical: *2-propanol* CAS No.: 67-63-0  
 Classification: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3  
 Formula: C<sub>3</sub>H<sub>8</sub>O  
 Pseudonym: isopropanol, IPA, propan-2-ol  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119457558-25-XXXX  
 EC No.: 200-661-7  
 RTECS: NT8050000  
 KE No.: KE-29363  
 Concentration: 20 - <35 %  
 acc. CLP (GHS): H226, Flam. Liq. 3, H319, Eye Irrit. 2, H336, STOT SE 3

Index No.: 603-117-00-0  
 MFCD: 00011674

## 8 mL PB

Chemical: *glycerole* CAS No.: 56-81-5  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: C<sub>3</sub>H<sub>8</sub>O<sub>3</sub>  
 Pseudonym: glycerin, 1,2,3-propanetriol  
 TSCA Inventory: listed (1,2,3-Propanetriol)  
 REACH Reg. No.: 01-2119471987-18-xxxx  
 EC No.: 200-289-5  
 RTECS: MA8050000  
 KE No.: KE-29297  
 Concentration: 10 - <50 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Index No.: n/a  
 MFCD: 00004722

## 75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)* CAS No.: 39450-01-6  
 Classification: H315, Skin Irrit. 2, H319, Eye Irrit. 2, H334, Resp. Sens. 1  
 Formula: Enzyme Comm. No. 3.4.21.64, origin: tritirachium album  
 TSCA Inventory: listed (CAS 102925-54-2)  
 EC No.: 254-457-8  
 RTECS: -  
 KE No.: not listed  
 Concentration: 90 - <100 %  
 acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2, H334, Resp. Sens. 1

Index No.: 647-014-00-9  
 MFCD: 00132129

## 50 mL T1

Chemical: *chemicals/mixture < 2%* CAS No.: -  
 Classification: No criteria for classification or naming of chemical not required.  
 TSCA Inventory: all listed, <2%  
 KE No.: listed  
 Concentration: 1 - <2 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

### 3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%.

List of H and P phrases: see section 16.1

## 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. 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. 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. ---

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- 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. ---
- 4.3 Indication of any immediate medical attention and special treatment needed**  
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**  
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, 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**  
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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. Use only in well-ventilated working areas.
- 7.2 Conditions for safe storage, including any incompatibilities**  
The original product package of MACHEREY-NAGEL allows a safe storage.  
Storage class (VCI): 3  
Water hazard class (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

100 mL B5

Chemical: *chemicals/mixture < 1%*

CAS No.: -

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**60 mL BE**

Chemical: *chemicals/mixture < 1%*      CAS No.: -

**50 mL BQ1**

Chemical: *guanidine hydrochloride*      CAS No.: 50-01-1

DNEL: [inh] 3.5 mg/m<sup>3</sup>  
 DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: -  
 PNEC = Predicted No Effect Concentration

NIOSH: not listed  
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: not listed

**125 mL BW**

Chemical: *guanidine hydrochloride*      CAS No.: 50-01-1

DNEL: [inh] 3.5 mg/m<sup>3</sup>  
 DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: -  
 PNEC = Predicted No Effect Concentration

NIOSH: not listed  
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: not listed

Chemical: *2-propanol*

CAS No.: 67-63-0

DNEL: [inh] 500 mg/m<sup>3</sup>  
 DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 140.9 mg/L  
 PNEC = Predicted No Effect Concentration

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

Short-term exposure factor: 2 (I), 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): [Aceton B/b, U/b] 25 mg/L  
 B blood, U urine, a no limitation, b end of exposition or shift

NIOSH: [TWA] 400 ppm / 980 mg/m<sup>3</sup>  
 NIOSH STEL: 500 ppm / 1225 mg/m<sup>3</sup>  
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

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

**8 mL PB**

Chemical: *glycerole*      CAS No.: 56-81-5

DNEL: [inh] 56 mg/m<sup>3</sup>  
 DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 0.885 mg/L  
 PNEC = Predicted No Effect Concentration

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

Short-term exposure factor: 2 (I), Y  
 skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

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

**75 mg Proteinase K (Iyo)**

Chemical: *proteinase K (origin: tritirachium album)*      CAS No.: 39450-01-6

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

**50 mL T1**

Chemical: *chemicals/mixture < 2%*      CAS No.: -

## 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



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Use for open access of these substances for example a protection filter, class A/AX. No additional recommendations.

- 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

|                                 |                        |                 |
|---------------------------------|------------------------|-----------------|
| <b>100 mL B5</b>                |                        |                 |
| Appearance: liquid              | Colour: colourless     | Odor: odorless  |
| pH:                             | 7-8                    |                 |
| Specific gravity:               | 1.00 g/cm <sup>3</sup> |                 |
| <b>60 mL BE</b>                 |                        |                 |
| Appearance: liquid              | Colour: colourless     | Odor: odorless  |
| pH:                             | 8-9                    |                 |
| Specific gravity:               | 1.0 g/cm <sup>3</sup>  |                 |
| <b>50 mL BQ1</b>                |                        |                 |
| Appearance: liquid              | Colour: colourless     | Odor: odorless  |
| pH:                             | 4.5-5.2                |                 |
| Specific gravity:               | 1.18 g/cm <sup>3</sup> |                 |
| <b>125 mL BW</b>                |                        |                 |
| Appearance: liquid              | Colour: colourless     | Odor: alcoholic |
| pH:                             | 7-8                    |                 |
| Flash point:                    | 25 °C                  |                 |
| Specific gravity:               | 1.06 g/cm <sup>3</sup> |                 |
| <b>8 mL PB</b>                  |                        |                 |
| Appearance: liquid              | Colour: colourless     | Odor: alcoholic |
| Specific gravity:               | 1.11 g/cm <sup>3</sup> |                 |
| <b>75 mg Proteinase K (Iyo)</b> |                        |                 |
| Appearance: solid (lyoph.)      | Colour: slightly grey  | Odor: odorless  |
| <b>50 mL T1</b>                 |                        |                 |
| Appearance: liquid              | Colour: colourless     | Odor: odorless  |
| pH:                             | 7.5-8.5                |                 |
| Specific gravity:               | 1.02 g/cm <sup>3</sup> |                 |

### 9.2 Other information

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

#### Relevant Properties of Substance Group

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no further data available.

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

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

### 10.4 Conditions to avoid

Not necessary. ---

### 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.

#### 100 mL B5

Chemical: *chemicals/mixture < 1%*  
 TSCA Inventory: all listed, <1%  
 Korea Exist.Chem.Inventory: listed

CAS No.: -

#### 60 mL BE

Chemical: *chemicals/mixture < 1%*  
 TSCA Inventory: all listed, <1%  
 Korea Exist.Chem.Inventory: listed

CAS No.: -

#### 50 mL BQ1

Chemical: *guanidine hydrochloride*  
 TSCA Inventory: listed  
 Australia NICNAS: not listed  
 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>: 475-907 mg/kg  
 LC50<sub>ihl rat</sub>: [4h] 3181-7655 µg/m<sup>3</sup>  
 LD50<sub>drm rbt</sub>: 2000 mg/kg

CAS No.: 50-01-1

California Proposition 65 List: not listed  
 Canada CEPA 1999: DSL yes

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

#### 125 mL BW

Chemical: *guanidine hydrochloride*  
 TSCA Inventory: listed  
 Australia NICNAS: not listed  
 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>: 475-907 mg/kg  
 LC50<sub>ihl rat</sub>: [4h] 3181-7655 µg/m<sup>3</sup>  
 LD50<sub>drm rbt</sub>: 2000 mg/kg

CAS No.: 50-01-1

California Proposition 65 List: not listed  
 Canada CEPA 1999: DSL yes

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

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

## 8 mL PB

Chemical: *glycerole* CAS No.: 56-81-5  
 TSCA Inventory: listed (1,2,3-Propanetriol)  
 Exposure Routes: inhalation, skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system, kidneys  
 Symptoms: irritation eyes, skin, respiratory system; headache, nausea, vomiting; kidney injury  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 Korea Exist.Chem.Inventory: KE-29297  
 LD50<sub>orl rat</sub>: 12.6 g/kg  
 LD50<sub>drm rbt</sub>: >18.7 g/kg  
 TRGS 905 (DE): R<sub>F</sub> C

## 75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)* CAS No.: 39450-01-6  
 TSCA Inventory: listed (CAS 102925-54-2)  
 Japan CSCL/PRTR: not listed  
 Japan ISHL: not listed  
 Korea Exist.Chem.Inventory: not listed  
 Acute Effects: Cause after 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.

## 50 mL T1

Chemical: *chemicals/mixture < 2%* CAS No.: -  
 TSCA Inventory: all listed, <2%  
 Korea Exist.Chem.Inventory: listed

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 100 mL B5

Chemical: *chemicals/mixture < 1%* CAS No.: -  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

#### 60 mL BE

Chemical: *chemicals/mixture < 1%* CAS No.: -  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

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## 50 mL BQ1

|  |                                     |          |         |
|--|-------------------------------------|----------|---------|
| Chemical:                                  | <i>guanidine hydrochloride</i>      | CAS No.: | 50-01-1 |
| PNEC <sub>(fresh water)</sub> :            | -                                   |          |         |
| PNEC = Predicted No Effected Concentration |                                     |          |         |
| LC50 <sub>leuciscus idus/96h</sub> :       | 1759 mg/L                           |          |         |
| LC50 <sub>fish/96h</sub> :                 | [4d] 690-1850; [48h] 1758-2420 mg/L |          |         |
| EC50 <sub>daphnia/48h</sub> :              | 70.2 mg/L                           |          |         |
| EC10 <sub>pseudomonas putita/16h</sub> :   | [72h] 11.8-33.5 mg/L                |          |         |
| Water hazard class (DE):                   | 1                                   | WGK No.: | 0788    |
| Storage class (VCI):                       | 12                                  |          |         |

## 125 mL BW

|  |                                     |          |         |
|--|-------------------------------------|----------|---------|
| Chemical:                                  | <i>guanidine hydrochloride</i>      | CAS No.: | 50-01-1 |
| PNEC <sub>(fresh water)</sub> :            | -                                   |          |         |
| PNEC = Predicted No Effected Concentration |                                     |          |         |
| LC50 <sub>leuciscus idus/96h</sub> :       | 1759 mg/L                           |          |         |
| LC50 <sub>fish/96h</sub> :                 | [4d] 690-1850; [48h] 1758-2420 mg/L |          |         |
| EC50 <sub>daphnia/48h</sub> :              | 70.2 mg/L                           |          |         |
| EC10 <sub>pseudomonas putita/16h</sub> :   | [72h] 11.8-33.5 mg/L                |          |         |
| Water hazard class (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 Effected 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    |          |         |
| Water hazard class (DE):                            | 1                 | WGK No.: | 0135    |
| Dispersion coefficient <sub>(octanol-water)</sub> : | 0.05              |          |         |
| Storage class (VCI):                                | 3                 |          |         |

## 8 mL PB

|   |                           |          |         |
|---|---------------------------|----------|---------|
| Chemical:   | <i>glycerole</i>          | CAS No.: | 56-81-5 |
| PNEC <sub>(fresh water)</sub> :                     | 0.885 mg/L                |          |         |
| PNEC = Predicted No Effected Concentration          |                           |          |         |
| LC50 <sub>fish/96h</sub> :                          | >5000 <sub>24h</sub> mg/L |          |         |
| EC50 <sub>daphnia/48h</sub> :                       | >10 <sub>24h</sub> g/L    |          |         |
| IC50 <sub>scenedesmus quadricauda/72h</sub> :       | IC57 <sub>d</sub> >10 g/L |          |         |
| EC10 <sub>pseudomonas putita/16h</sub> :            | EC5: >10 g/L              |          |         |
| Water hazard class (DE):                            | 0                         |          |         |
| Dispersion coefficient <sub>(octanol-water)</sub> : | -1.76                     |          |         |
| Storage class (VCI):                                | 10                        |          |         |

## 75 mg Proteinase K (Iyo)

|                          |  |          |            |
|--------------------------|--|----------|------------|
| Chemical:                | <i>proteinase K (origin: tritirachium album)</i> | CAS No.: | 39450-01-6 |
| Water hazard class (DE): | 1  |          |            |
| Storage class (VCI):     | 13   |          |            |

## 50 mL T1

|                          |                                  |          |   |
|--------------------------|----------------------------------|----------|---|
| Chemical:                | <i>chemicals/mixture &lt; 2%</i> | CAS No.: | - |
| Water hazard class (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

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

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

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

*Road transport*

Classification code: F1

Limited Quantity: 5 L

Excepted Quantity: E 1

*Air transport*

PAX: 355

CAO: 366

*Maritime transport*

EmS: F-E, S-E

Tunnel restriction code: E

Special instructions: 640E

max. weight PAX: 60 L

max. weight CAO: 220 L

Storage category: A

### 14.5 Environmental hazards

none, 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

MN Leaflet/User manual, also see [www.mn-net.com](http://www.mn-net.com)

Look for your country-specific regulations.

### 15.2 Chemical safety assessment

not necessary for these small amounts ---

## SECTION 16: Other information

### 16.1 List of H and P phrases

#### 16.1.1 List of relevant H phrases

|      |  |
|------|--|
| H226 | Flammable liquid and vapour.   |
| H302 | Harmful if swallowed.  |
| H315 | Causes skin irritation.  |
| H319 | Causes serious eye irritation.   |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H336 | May cause drowsiness or dizziness.   |

#### 16.1.2 List of relevant P phrases

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

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|          |  |
|----------|--|
| P210     | Keep away from heat/sparks/open flames/hot surfaces. No smoking.           |
| P260D    | Do not breathe vapours.  |
| P261sh   | Avoid breathing dust/vapours.  |
| 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.              |
| P304+340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P330     | Rinse mouth.   |
| P342+311 | If experiencing respiratory symptoms: Call a POISON CENTER/doctor.         |

## 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 for DE §§ 11-13 MuSchG 2017)!

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

Regulation 669/2018/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

Regulation 1480/2018/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 03/2019

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)

### Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU

2017-11 Adaption of ECHA Registration dossier