

# Safety Data Sheet

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

REF: 744300.1	NucleoMag 96 Tissue (1x96)	Page: 1/16
Printing date: 12.05.2021	Date of issue: 29.10.2020	

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

### 1.1 Product identifier

REF 744300.1  
 Product name NucleoMag 96 Tissue (1x96)

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 3 mL B-Beads
- 1 x 45 mL MB2
- 1 x 75 mL MB3
- 1 x 75 mL MB4
- 1 x 125 mL MB5
- 1 x 30 mL MB6
- 1 x 8 mL PB
- 1 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

### 2.1 Classification of the substance or mixture

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 2/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

### 3 mL B-Beads

Signal word

Do not need labelling as hazardous

No hazard class

### 45 mL MB2



GHS02

GHS07

Signal word

WARNING

#### Hazard identification

H226  
H302

#### Hazard classes/categories

Flam. Liq. 3  
Acute Tox. 4 oral

### 75 mL MB3



GHS02

GHS07

Signal word

WARNING

#### Hazard identification

H226  
H302

#### Hazard classes/categories

Flam. Liq. 3  
Acute Tox. 4 oral

### 75 mL MB4



GHS02

GHS07

Signal word

WARNING

#### Hazard identification

H226  
H302

#### Hazard classes/categories

Flam. Liq. 3  
Acute Tox. 4 oral

### 125 mL MB5

Signal word

Do not need labelling as hazardous

No hazard class

### 30 mL MB6

Signal word

Do not need labelling as hazardous

No hazard class

# Safety Data Sheet

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

REF: 744300.1	NucleoMag 96 Tissue (1x96)	Page: 3/16
Printing date: 12.05.2021	Date of issue: 29.10.2020	

**8 mL PB**

Signal word Do not need labelling as hazardous  
-  
No hazard class

**75 mg Proteinase K (Iyo)**



Signal word GHS07 GHS08  
DANGER

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

**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 sensibilizing substances.

**3 mL B-Beads**

Do not need labelling as hazardous  
Signal word: -

**45 mL MB2**



GHS02 GHS07  
Signal word: WARNING

**75 mL MB3**



GHS02 GHS07  
Signal word: WARNING

**75 mL MB4**



GHS02 GHS07

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 4/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

Signal word: WARNING

## 125 mL MB5

Do not need labelling as hazardous  
Signal word: -

## 30 mL MB6

Do not need labelling as hazardous  
Signal word: -

## 8 mL PB

Do not need labelling as hazardous  
Signal word: -

## 75 mg Proteinase K (lyo)



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.

## 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

#### 3 mL B-Beads

Chemical: *magnetic particles, suspended in water*

CAS No.: -

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

TSCA Inventory: listed (CAS 1309-38-2)

Concentration: 1 - <15 %

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

#### 45 mL MB2

# Safety Data Sheet

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

REF: 744300.1 NucleoMag 96 Tissue (1x96) Page: 5/16  
 Printing date: 12.05.2021 Date of issue: 29.10.2020

Chemical: *ethanol* CAS No.: 64-17-5  
 (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)  
 Classification: H225, Flam. Liq. 2  
 Formula: C<sub>2</sub>H<sub>6</sub>O; C<sub>2</sub>H<sub>5</sub>OH  
 Pseudonym: ethyl alcohol, methylated spirit  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119457610-43-xxxx  
 EC No.: 200-578-6 Index No.: 603-002-00-5  
 RTECS: KQ6300000 MFCD: 00003568  
 KE No.: KE-13217  
 Concentration: 35 - <55 %  
 acc. CLP (GHS): H226, Flam. Liq. 3

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 Classification: H271, Ox. Sol. 1, H302, Acute Tox. 4 oral  
 Formula: NaClO<sub>4</sub>  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119540521-50-xxxx  
 EC No.: 231-511-9 Index No.: 017-010-00-6  
 RTECS: SC9800000 MFCD: -  
 KE No.: KE-31569  
 Concentration: 15 - <40 %  
 acc. CLP (GHS): H302, Acute Tox. 4 oral

**75 mL MB3**

Chemical: *ethanol* CAS No.: 64-17-5  
 (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)  
 Classification: H225, Flam. Liq. 2  
 Formula: C<sub>2</sub>H<sub>6</sub>O; C<sub>2</sub>H<sub>5</sub>OH  
 Pseudonym: ethyl alcohol, methylated spirit  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119457610-43-xxxx  
 EC No.: 200-578-6 Index No.: 603-002-00-5  
 RTECS: KQ6300000 MFCD: 00003568  
 KE No.: KE-13217  
 Concentration: 20 - <35 %  
 acc. CLP (GHS): H226, Flam. Liq. 3

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 Classification: H271, Ox. Sol. 1, H302, Acute Tox. 4 oral  
 Formula: NaClO<sub>4</sub>  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119540521-50-xxxx  
 EC No.: 231-511-9 Index No.: 017-010-00-6  
 RTECS: SC9800000 MFCD: -  
 KE No.: KE-31569  
 Concentration: 15 - <40 %  
 acc. CLP (GHS): H302, Acute Tox. 4 oral

**75 mL MB4**

Chemical: *ethanol* CAS No.: 64-17-5  
 (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)  
 Classification: H225, Flam. Liq. 2  
 Formula: C<sub>2</sub>H<sub>6</sub>O; C<sub>2</sub>H<sub>5</sub>OH  
 Pseudonym: ethyl alcohol, methylated spirit  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119457610-43-xxxx  
 EC No.: 200-578-6 Index No.: 603-002-00-5  
 RTECS: KQ6300000 MFCD: 00003568  
 KE No.: KE-13217  
 Concentration: 20 - <35 %  
 acc. CLP (GHS): H226, Flam. Liq. 3



# Safety Data Sheet

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

REF: 744300.1	NucleoMag 96 Tissue (1x96)	Page: 6/16
Printing date: 12.05.2021	Date of issue: 29.10.2020	

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 Classification: H271, Ox. Sol. 1, H302, Acute Tox. 4 oral  
 Formula: NaClO<sub>4</sub>  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119540521-50-xxxx  
 EC No.: 231-511-9  
 RTECS: SC9800000  
 KE No.: KE-31569  
 Concentration: 15 - <40 %  
 acc. CLP (GHS): H302, Acute Tox. 4 oral

Indice No.: 017-010-00-6  
 MFCD: -

### 125 mL MB5

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.

### 30 mL MB6

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.

### 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.

Indice 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

Indice 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

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 7/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

## 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. ---

#### 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

---

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 8/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

## 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

#### 3 mL B-Beads

Chemical: *magnetic particles, suspended in water*

CAS No.: -

#### 45 mL MB2

Chemical: *ethanol*

CAS No.: 64-17-5

DNEL: [derm] 343 mg/kg; [inh] 950 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 0.96 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 mL/m<sup>3</sup> / 380 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 4 (II), Y  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 500 ppm / 960 mg/m<sup>3</sup>

NIOSH: [TWA] 1000 ppm / 1900 mg/m<sup>3</sup>  
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [TWA] 1000 ppm / 1900 mg/m<sup>3</sup>

Chemical: *sodium perchlorate*

CAS No.: 7601-89-0

DNEL: [derm] 2.16 mg/kg bw/day; [inh] 0.28 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): -  
E/e respirable

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

#### 75 mL MB3

Chemical: *ethanol*

CAS No.: 64-17-5

DNEL: [derm] 343 mg/kg; [inh] 950 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 0.96 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 mL/m<sup>3</sup> / 380 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 4 (II), Y  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 500 ppm / 960 mg/m<sup>3</sup>

NIOSH: [TWA] 1000 ppm / 1900 mg/m<sup>3</sup>  
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [TWA] 1000 ppm / 1900 mg/m<sup>3</sup>

Chemical: *sodium perchlorate*

CAS No.: 7601-89-0

DNEL: [derm] 2.16 mg/kg bw/day; [inh] 0.28 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): -  
E/e respirable

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



# Safety Data Sheet

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

REF: 744300.1	NucleoMag 96 Tissue (1x96)	Page: 9/16
Printing date: 12.05.2021	Date of issue: 29.10.2020	

OSHA: not listed

### 75 mL MB4

Chemical: *ethanol* CAS No.: 64-17-5

DNEL: [derm] 343 mg/kg; [inh] 950 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC<sup>(fresh water)</sup>: 0.96 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 mL/m<sup>3</sup> / 380 mg/m<sup>3</sup>  
 E/e respirable

Short-term exposure factor: 4 (I), Y  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 500 ppm / 960 mg/m<sup>3</sup>

NIOSH: [TWA] 1000 ppm / 1900 mg/m<sup>3</sup>  
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [TWA] 1000 ppm / 1900 mg/m<sup>3</sup>

Chemical: *sodium perchlorate* CAS No.: 7601-89-0

DNEL: [derm] 2.16 mg/kg bw/day; [inh] 0.28 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): -  
 E/e respirable

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 MB5

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

### 30 mL MB6

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

### 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<sup>(fresh water)</sup>: 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

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

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 10/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

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

**3 mL B-Beads**

Appearance: liquid                      Colour: colourless                      Odor: odorless

**45 mL MB2**

Appearance: liquid                      Colour: colourless                      Odor: alcoholic  
pH: 5-6  
Flash point: 24 °C  
Specific gravity: 1.08 g/cm<sup>3</sup>

**75 mL MB3**

Appearance: liquid                      Colour: colourless                      Odor: alcoholic  
pH: 4.5-5.5  
Boiling point: 83,6 °C  
Flash point: 26 °C  
Specific gravity: 1.06 g/cm<sup>3</sup>

**75 mL MB4**

Appearance: liquid                      Colour: colourless                      Odor: alcoholic  
pH: 4.5-5.5  
Boiling point: 83,6 °C  
Flash point: 26 °C  
Specific gravity: 1.06 g/cm<sup>3</sup>

**125 mL MB5**

Appearance: liquid                      Colour: colourless                      Odor: odorless  
pH: 8-9  
Specific gravity: 1.0 g/cm<sup>3</sup>

**30 mL MB6**

Appearance: liquid                      Colour: colourless                      Odor: odorless  
pH: 8-9  
Specific gravity: 1.0 g/cm<sup>3</sup>

**8 mL PB**

Appearance: liquid                      Colour: colourless                      Odor: alcoholic  
Specific gravity: 1.11 g/cm<sup>3</sup>

**75 mg Proteinase K (Iyo)**

Appearance: solid (lyoph.)              Colour: slightly grey                      Odor: odorless

**50 mL T1**

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

---

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 11/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

## 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

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.

#### 3 mL B-Beads

Chemical: *magnetic particles, suspended in water*  
 TSCA Inventory: listed (CAS 1309-38-2)

CAS No.: -

#### 45 mL MB2

Chemical: *ethanol* CAS No.: 64-17-5  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 ACGIH: 1000 ppm  
 Exposure Routes: inhalation, ingestion, skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system  
 Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough;  
 liver damage; anemia; reproductive, teratogenic  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: listed  $\geq 0,1\%$ / $\geq 0,1\%$ , Article 57-2 (SDS required)  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-13217  
 LD50<sub>orl rat</sub>: 6200 mg/kg  
 LC<sub>LoWihl</sub> gpg: 21.9 g/m<sup>3</sup>  
 LC<sub>LoWorl</sub> hmn: 1400 mg/kg  
 LC50<sub>ihl mouse</sub>: [4h] 39 g/m<sup>3</sup>  
 LC50<sub>ihl rat</sub>: [10h] 20 g/m<sup>3</sup>  
 LD50<sub>drm rbt</sub>: 20 000 mg/kg  
 LD50<sub>oral mouse</sub>: 3450 mg/kg

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

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-31569  
 LD50<sub>orl rat</sub>: 2100 mg/kg  
 LD50<sub>ipr mus</sub>: 551 mg/kg  
 Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 12/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

## 75 mL MB3

Chemical: *ethanol* CAS No.: 64-17-5  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 ACGIH: 1000 ppm  
 Exposure Routes: inhalation, ingestion, skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system  
 Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: listed  $\geq 0,1\%$ / $\geq 0,1\%$ , Article 57-2 (SDS required)  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-13217  
 LD50<sub>orl rat</sub>: 6200 mg/kg  
 LC<sub>LoWihl</sub> gpg: 21.9 g/m<sup>3</sup>  
 LC<sub>LoWorl</sub> hmh: 1400 mg/kg  
 LC50<sub>ihl mouse</sub>: [4h] 39 g/m<sup>3</sup>  
 LC50<sub>ihl rat</sub>: [10h] 20 g/m<sup>3</sup>  
 LD50<sub>drm rbt</sub>: 20 000 mg/kg  
 LD50<sub>oral mouse</sub>: 3450 mg/kg  
 TRGS 905 (DE): K5, M5, R<sub>F</sub> C

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-31569  
 LD50<sub>orl rat</sub>: 2100 mg/kg  
 LD50<sub>ipr mus</sub>: 551 mg/kg  
 Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

## 75 mL MB4

Chemical: *ethanol* CAS No.: 64-17-5  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 ACGIH: 1000 ppm  
 Exposure Routes: inhalation, ingestion, skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system  
 Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: listed  $\geq 0,1\%$ / $\geq 0,1\%$ , Article 57-2 (SDS required)  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-13217  
 LD50<sub>orl rat</sub>: 6200 mg/kg  
 LC<sub>LoWihl</sub> gpg: 21.9 g/m<sup>3</sup>  
 LC<sub>LoWorl</sub> hmh: 1400 mg/kg  
 LC50<sub>ihl mouse</sub>: [4h] 39 g/m<sup>3</sup>  
 LC50<sub>ihl rat</sub>: [10h] 20 g/m<sup>3</sup>  
 LD50<sub>drm rbt</sub>: 20 000 mg/kg  
 LD50<sub>oral mouse</sub>: 3450 mg/kg  
 TRGS 905 (DE): K5, M5, R<sub>F</sub> C

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-31569  
 LD50<sub>orl rat</sub>: 2100 mg/kg  
 LD50<sub>ipr mus</sub>: 551 mg/kg  
 Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.



# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 13/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

## 125 mL MB5

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

CAS No.: -

## 30 mL MB6

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

CAS No.: -

## 8 mL PB

Chemical: *glycerole*  
 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

CAS No.: 56-81-5

## 75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)*  
 TSCA Inventory: listed (CAS 102925-54-2)  
 Japan CSCL/PRTR: not listed  
 Japan ISHL: not listed  
 Korea Exist.Chem.Inventory: not listed

CAS No.: 39450-01-6

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%*  
 TSCA Inventory: all listed, <2%  
 Korea Exist.Chem.Inventory: listed

CAS No.: -

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 3 mL B-Beads

Chemical: *magnetic particles, suspended in water*  
 Storage class (VCI): 12

CAS No.: -

#### 45 mL MB2

Chemical: *ethanol*  
 PNEC<sub>(fresh water)</sub>: 0.96 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50<sub>daphnia magna/48h</sub>: >100 mg/L  
 LC50<sub>pimephales promelas/96h</sub>: 13400 - 15100 mg/L  
 LC50<sub>leuciscus idus/96h</sub>: [48h] 8140 mg/L  
 LC50<sub>fish/96h</sub>: 13 g/L  
 EC50<sub>daphnia/48h</sub>: 9.3-14.2 g/L  
 IC50<sub>scenedesmus quadricauda/72h</sub>: [7d] 5000 mg/L  
 EC10<sub>pseudomonas putida/16h</sub>: [EC5] 6500 mg/L  
 Water hazard class (DE): 1 WGK No.: 0096  
 Dispersion coefficient<sub>(octanol-water)</sub>: -0.31

CAS No.: 64-17-5

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 14/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

Storage class (VCI): 3

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 Water hazard class (DE): 1 WGK No.: 0382  
 Storage class (VCI): 12

### 75 mL MB3

Chemical: *ethanol* CAS No.: 64-17-5  
 PNEC(fresh water) : 0.96 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50daphnia magna/48h : >100 mg/L  
 LC50pimephales promelas/96h : 13400 - 15100 mg/L  
 LC50leuciscus idus/96h : [48h] 8140 mg/L  
 LC50fish/96h : 13 g/L  
 EC50daphnia/48h : 9.3-14.2 g/L  
 IC50scenedesmus quadricauda/72h : [7d] 5000 mg/L  
 EC10pseudomonas putita/16h : [EC5] 6500 mg/L  
 Water hazard class (DE): 1 WGK No.: 0096  
 Dispersion coefficient(octanol-water) : -0.31  
 Storage class (VCI): 3

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 Water hazard class (DE): 1 WGK No.: 0382  
 Storage class (VCI): 12

### 75 mL MB4

Chemical: *ethanol* CAS No.: 64-17-5  
 PNEC(fresh water) : 0.96 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50daphnia magna/48h : >100 mg/L  
 LC50pimephales promelas/96h : 13400 - 15100 mg/L  
 LC50leuciscus idus/96h : [48h] 8140 mg/L  
 LC50fish/96h : 13 g/L  
 EC50daphnia/48h : 9.3-14.2 g/L  
 IC50scenedesmus quadricauda/72h : [7d] 5000 mg/L  
 EC10pseudomonas putita/16h : [EC5] 6500 mg/L  
 Water hazard class (DE): 1 WGK No.: 0096  
 Dispersion coefficient(octanol-water) : -0.31  
 Storage class (VCI): 3

Chemical: *sodium perchlorate* CAS No.: 7601-89-0  
 Water hazard class (DE): 1 WGK No.: 0382  
 Storage class (VCI): 12

### 125 mL MB5

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

### 30 mL MB6

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

### 8 mL PB

Chemical: *glycerole* CAS No.: 56-81-5  
 PNEC(fresh water) : 0.885 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50fish/96h : >5000<sub>24h</sub> mg/L  
 EC50daphnia/48h : >10<sub>24h</sub> g/L  
 IC50scenedesmus quadricauda/72h : IC5<sub>7d</sub> >10 g/L  
 EC10pseudomonas putita/16h : EC5: >10 g/L  
 Water hazard class (DE): 0  
 Dispersion coefficient(octanol-water) : -1.76  
 Storage class (VCI): 10



# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 15/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

## 75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)*  
 Water hazard class (DE): 1  
 Storage class (VCI): 13

CAS No.: 39450-01-6

## 50 mL T1

Chemical: *chemicals/mixture < 2%*  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

CAS No.: -

### 12.2 Persistence and degradability

not necessary

### 12.3 Bioaccumulative potential

not necessary

### 12.4 Mobility in soil

not necessary

### 12.5 Results of PBT and vPvB assessment

no data available

### 12.6 Other adverse effects

no additional data available

## SECTION 13: Disposal considerations

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. (ethanol mixture)

14.3 Class: 3 14.4 Packing group: III

#### Road transport

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

#### Air transport

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

#### Maritime transport

EmS: F-E, S-E 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.

[www.mn-net.com](http://www.mn-net.com)

# Safety Data Sheet

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

REF: 744300.1

NucleoMag 96 Tissue (1x96)

Page: 16/16

Printing date: 12.05.2021

Date of issue: 29.10.2020

## 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.

#### 16.1.2 List of relevant P phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
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

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

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

### 16.5 Sources of key data

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

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

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

2017-08 Adaption of new ethanol denaturation 2016/1867/EU