

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 1/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

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

#### 1.1 Product Identifier / Product Name

REF	744220.4
Product Name	NucleoMag DNA/RNA Water (4x96)

1 x 12 mL B-Beads  
 1 x 125 mL RNase-free H<sub>2</sub>O  
 2 x 250 mL MWA4  
 1 x 500 mL MWA1  
 1 x 400 mL MWA2  
 3 x 300 mL MWA3

UFI: 6HKV-D3HN-Y20P-8UJW  
 UFI: 1A6V-H3H9-G20E-ACR  
 UFI: JRCV-E309-S20K-0VHT  
 UFI: ME7V-33GF-F20U-XTDK

#### 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 and of the Safety Data Sheet

##### Manufactured by:

MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11, 52355 Düren, Germany  
 Phone: +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.

USA: American Association Of Poison Control Centers

Rockville, MD 20857, tel. 1-800-222-1222, <<https://www.poisonhelp.org>>

DE: Gemeinsames Giftinformationszentrum (GGIZ)

99089 Erfurt tel. +49 361 730 730

<<https://www.ggiz-erfurt.de>>

You find our current versions of SDS in Internet:

<<http://www.mn-net.com/SDS>>

### SECTION 2: Hazard(s) Identification

#### 2.0 Classification of the complete Product



GHS02



GHS07

Signal Word

DANGER

##### Hazard Identification

H225  
 H302  
 H315  
 H319  
 H336  
 H412

##### Hazard Classes/Categories

Flam. Liq. 2  
 Acute Tox. 4 oral  
 Skin Irrit. 2  
 Eye Irrit. 2  
 STOT SE 3  
 Aquatic Chronic 3

#### 2.1 Classification of the substance or mixture

300 mL MWA3



MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
 CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
 FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
 US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 2/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7



GHS02

GHS07

Signal Word

WARNING

**Hazard Identification**

**Hazard Classes/Categories**

H226	Flam. Liq. 3
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2

**500 mL MWA1**



GHS07

Signal Word

WARNING

**Hazard Identification**

**Hazard Classes/Categories**

H302	Acute Tox. 4 oral
H412	Aquatic Chronic 3

**250 mL MWA4**



GHS02

Signal Word

DANGER

**Hazard Identification**

**Hazard Classes/Categories**

H225	Flam. Liq. 2
------	--------------

**400 mL MWA2**



GHS02



GHS07

Signal Word

DANGER

**Hazard Identification**

**Hazard Classes/Categories**

H225	Flam. Liq. 2
H319	Eye Irrit. 2
H336	STOT SE 3

**125 mL RNase-free H<sub>2</sub>O**

Signal Word

Do not need labelling as hazardous

No Hazard Class

-



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 3/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

### 12 mL B-Beads

Signal Word Do not need labelling as hazardous  
-

No Hazard Class

List of H phrases: see section 16.2

## 2.2 Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

According to the implementation of GHS immediate packages only must be labelled with product identifier(s), GHS symbol(s), signal word, manufacturer name and phone number (OSHA's interpretation of HCS 2012). 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) / **until 100 mL** (Canada WHMIS 2015). This labelling exemption does not apply to U.S.A.

### 300 mL MWA3



GHS02



GHS07

Signal Word: WARNING  
H226, H302, H315, H319  
Flammable liquid and vapor. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.  
P210, P264W, P280sh, P301+312, P330  
Wash with water thoroughly after handling. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/eye protection. Rinse mouth.

### 500 mL MWA1



GHS07

Signal Word: WARNING  
H302, H412  
Harmful if swallowed. Harmful to aquatic life with long lasting effects.  
P264W, P273, P301+312, P330  
Wash with water thoroughly after handling. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Avoid release to the environment. Rinse mouth.

### 250 mL MWA4



GHS02

Signal Word: DANGER  
H225  
Highly flammable liquid and vapor.  
P210, P233  
Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed.

### 400 mL MWA2



GHS02



GHS07

Signal Word: DANGER  
H225, H319, H336



MACHEREY-NAGEL GmbH & Co. KG  
Valencienner Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4	NucleoMag DNA/RNA Water (4x96)	Page: 4/16
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.2.7

Highly flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness. P210, P233, P260D, P280sh  
Do not breathe vapors. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Wear protective gloves/eye protection.

**125 mL RNase-free H<sub>2</sub>O**  
Do not need labelling as hazardous  
Signal Word: -

**12 mL B-Beads**  
Do not need labelling as hazardous  
Signal Word: -

### Label elements of the complete product



Signal Word: DANGER  
H225, H302, H315, H319, H336, H412  
Highly flammable liquid and vapor. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.  
P210, P233, P260D, P264W, P273, P280sh, P301+312, P330  
Do not breathe vapors. Wash with water thoroughly after handling. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Avoid release to the environment. Wear protective gloves/eye protection. Rinse mouth.

## 2.3 Other Hazards

### Possible Hazards from physicochemical Properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. Vapour forms explosive mixtures with air. For guanidine thiocyanate CAS 593-84-0: The properties H314, H332 "Causes severe skin burns and eye damage. Harmful if inhaled." are not relevant, because the mixture solution is buffered to pH 4-9 (see GHS Directive 1272/2008/EC Annex I, chapter 3.2.3.1.2.).

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

Cause after oral intake, impairments of health when ingested in small quantities. May cause drowsiness or dizziness.

### Information pertaining to particular Risks to the Environment

Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.

PBT: not applicable

vPvB: not applicable

### Possible endocrine disrupting effects

data not available

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 300 mL MWA3

Substance name: *guanidine hydrochloride*  
CAS No.: 50-01-1

Substance rating: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2  
Chemical Formula: CH<sub>6</sub>ClN<sub>3</sub>  
Synonyms (de): Guanidiniumchlorid  
REACH Reg. No.: 01-2119977063-35-0005  
EC No.: 200-002-3  
Concentration: 24 - <36 %  
acc. GHS: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

Indice No.: 607-148-00-0



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4	NucleoMag DNA/RNA Water (4x96)	Page: 5/16
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.2.7

Substance name: *ethanol*  
 CAS No.: 64-17-5  
 (denatured with 1% 2-butanone)  
 Substance rating: H225, Flam. Liq. 2  
 Chemical Formula: C<sub>2</sub>H<sub>6</sub>O; C<sub>2</sub>H<sub>5</sub>OH  
 Synonyms (de): Äthylalkohol, vergällter Spiritus  
 REACH Reg. No.: 01-2119457610-43-xxxx  
 EC No.: 200-578-6  
 Concentration: 35 - <55 %  
 acc. GHS: H226, Flam. Liq. 3

Indice No.: 603-002-00-5

### 400 mL MWA2

Substance name: *2-propanol*  
 CAS No.: 67-63-0  
 Substance rating: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3  
 Chemical Formula: C<sub>3</sub>H<sub>8</sub>O  
 Synonyms (de): Isopropanol, IPA, Propan-2-ol  
 REACH Reg. No.: 01-2119457558-25-XXXX  
 EC No.: 200-661-7  
 Concentration: 95 - <100 %  
 acc. GHS: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3

Indice No.: 603-117-00-0

### 12 mL B-Beads

Substance name: *magnetic particles, suspended in water*  
 CAS No.: -  
 Substance rating: No criteria for classification or naming of chemical is not required.  
 Synonyms (de): magnetic beads  
 Concentration: 1 - <15 %  
 acc. GHS: The criteria for classification are not fulfilled.

### 250 mL MWA4

Substance name: *ethanol*  
 CAS No.: 64-17-5  
 (not denatured)  
 Substance rating: H225, Flam. Liq. 2  
 Chemical Formula: C<sub>2</sub>H<sub>6</sub>O  
 Synonyms (de): Äthylalkohol, Spiritus, abs.  
 REACH Reg. No.: 01-2119457610-43-xxxx  
 EC No.: 200-578-6  
 Concentration: 75 - <90 %  
 acc. GHS: H225, Flam. Liq. 2

Indice No.: 603-002-00-5

### 500 mL MWA1

Substance name: *guanidinium thiocyanate*  
 CAS No.: 593-84-0  
 Substance rating: H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H314, Skin Corr. 1C, H332, Acute Tox. 4 inh., H412, Aquatic Chronic 3  
 Chemical Formula: C<sub>2</sub>H<sub>6</sub>N<sub>4</sub>S  
 Synonyms (de): Guanidiniumrhodanid  
 REACH Reg. No.: 01-2120735072-65-0001  
 EC No.: 209-812-1  
 Concentration: 45 - <60 %  
 acc. GHS: H302, Acute Tox. 4 oral, H412, Aquatic Chronic 3

Indice No.: 615-004-00-3

### 125 mL RNase-free H<sub>2</sub>O



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 6/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

Substance name: *water*  
 CAS No.: 7732-18-5

Substance rating: No criteria for classification or naming of chemical is not required.  
 Chemical Formula: H<sub>2</sub>O  
 REACH Reg. No.: exempt, Annex IV  
 EC No.: 231-791-2  
 Concentration: 90 - <100 %  
 acc. 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 Hazard and Precaution phrases: see section 16.2.

## SECTION 4: First-Aid Measures

### 4.1 Description of First-Aid Measures

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

#### 4.1.1 After SKIN Contact

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

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open for min. 10 minutes with eye washing bottle, eye douche or running water (protect intact eye). Before (if possible) apply eye drops Proxymetacaine 0.5%, if the opening the eyelid convulsion is painful. Further treatment to be carried out by an eye specialist.

#### 4.1.3 After INHALATION of Vapors

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

#### 4.1.4 After ORAL Intake

After oral intake lots of water with activated charcoal supplement should be drunk after it has been ingested. Do not induce vomiting under any circumstances. Do not make any efforts to neutralize it. Contact medical advice for possible consequences.

### 4.2 Most important Symptoms and Effects, both acute and delayed

Causes serious eye irritation.

### 4.3 Indication of any immediate Medical Attention and Special Treatment needed

After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive substance. Further treatment must to be carried out by an eye specialist. ---

## SECTION 5: Fire-Fighting Measures

### 5.1 Extinguishable Media

#### 5.1.1 Suitable 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.

#### 5.1.2 Unsuitable extinguishing media

data not available

### 5.2 Special Hazards arising from the Substance or Mixture

DANGER: Highly flammable. Forms explosive vapor-air mixtures. Formation of hazardous and caustic vapor-air mixtures possible.

### 5.3 Advice for Firefighters

No, for listed product. The substance/mixture is highly flammable. Product package burns like paper or plastic. Cool any undamaged containers in water, and remove from the danger zone if possible. Heating will lead to an increase in pressure, and a danger of bursting. Spray any vapours released with water. Retent fire water. Use only acid-resistant safety equipment. For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.



MACHEREY-NAGEL GmbH & Co. KG  
 Valenciener Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
 CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
 FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
 US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 7/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

### 5.4 Additional Information

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

## SECTION 6: Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedure

Do not breathe vapors. Wear suitable protective gloves (see 8.2.2). Wear eye protection. Keep product away from sources of ignition - No smoking. 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

Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.

**PBT:** not applicable

**vPvB:** not applicable

### 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 hazards. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into sewer.

### 6.4 Reference to other Sections

see information in section 5.4,7,8 and 13

## SECTION 7: Handling and Storage

### 7.1 Precautions for Safe Handling

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

### 7.2 Conditions for Safe Storage, including any Incompatibilities

The original product package allows a safe storage. Classification into storage class A (Flammable). Storage class (German chemical industry): see chapter 12.1

**Storage class (VC1):** 3

**Water hazard class (DE):** 3

### 7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage, and store in a well-ventilated place at max. 77°F (25 °C), away or preferably separate from substances with which a hazardous reaction could take place. Use inbreakable container for transport of glass bottles.

### 7.3 Specific End Use(s)

Product for analytical use.

## SECTION 8: Exposure Controls/Personal Protection

### 8.1 Control Parameters

#### 300 mL MWA3

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 (fresh water): -  
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: *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 (fresh water): 0.96 mg/L  
PNEC = Predicted No Effect Concentration

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



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 8/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

### 400 mL MWA2

Chemical: *2-propanol* CAS No.: 67-63-0

DNEL: [inh] 500 mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): 140.9 mg/L

PNEC = Predicted No Effect Concentration

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>

### 12 mL B-Beads

Chemical: *magnetic particles, suspended in water* CAS No.: -

### 250 mL MWA4

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 (fresh water): 0.96 mg/L

PNEC = Predicted No Effect Concentration

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>

### 500 mL MWA1

Chemical: *guanidinium thiocyanate* CAS No.: 593-84-0

DNEL: [inh] 1092 µg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): 42.4 µg/L

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 RNase-free H<sub>2</sub>O

Chemical: *water* CAS No.: 7732-18-5

## 8.2 Exposure Controls

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

### 8.2.1 Respiratory Protection

No additional recommendations.

### 8.2.2 Skin protection / Hand protection

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

### 8.2.3 Eye / Face Protection

Yes, Splash Goggles.

### 8.2.4 Skin Protection

Recommended to avoid contamination with these hazards.

### 8.2.5 Hygiene Measures

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.

### 8.2.6 Thermal hazards

data not available

## 8.3 Limitation and monitoring of environmental exposure

Do not release product into environment.



MACHEREY-NAGEL GmbH & Co. KG  
Valencienner Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 9/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

### SECTION 9: Physical and Chemical Properties

#### 9.1 Information on Basic Physical and Chemical Properties

##### 300 mL MWA3

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	alcoholic
d) Melting Point:	data not available
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	23 °C
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	5-5.5
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	data not available
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	data not available
p) Specific Gravity:	0.98 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

##### 400 mL MWA2

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	alcoholic
d) Melting Point:	-90 °C
e) Boiling Point:	82 °C
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	2-12.7 Vol%
h) Flash Point:	12 °C
i) Autoignition Temperature:	425 °C
j) Decomposition Temperature:	data not available
k) pH Value:	data not available
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	0-100 %
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	43 hPa
p) Specific Gravity:	0.78 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	2.08
r) Particle Size:	data not available

##### 12 mL B-Beads

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	odorless
d) Melting Point:	data not available
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	data not available
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	data not available
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	data not available
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	data not available
p) Specific Gravity:	data not available
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available



MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 info@mn-net.com  
 CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
 FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
 US Tel.: +1 888 321 62 24 sales-us@mn-net.com

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 10/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

### 250 mL MWA4

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	alcoholic
d) Melting Point:	-114 °C
e) Boiling Point:	78 °C
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	3.2-15 Vol%
h) Flash Point:	14 °C
i) Autoignition Temperature:	425
j) Decomposition Temperature:	data not available
k) pH Value:	7
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	0-100 %
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	59 hPa
p) Specific Gravity:	0.82 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	1.59
r) Particle Size:	data not available

### 500 mL MWA1

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	odorless
d) Melting Point:	data not available
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	data not available
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	6.5-7.5
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	data not available
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	data not available
p) Specific Gravity:	1.13 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

### 125 mL RNase-free H<sub>2</sub>O

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	odorless
d) Melting Point:	data not available
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	data not available
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	6-8
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	data not available
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	data not available
p) Specific Gravity:	1.0 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

## 9.2 Further Information

No data is available for the other parameters for the mixtures, since no registration and no chemical safety report is required.

### Properties relevant to substance groups

Substances are highly volatile and form flammable gas-air mixtures.



MACHEREY-NAGEL GmbH & Co. KG  
 Valenciener Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
 CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
 FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
 US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4	NucleoMag DNA/RNA Water (4x96)	Page: 11/16
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.2.7

### 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

But avoid reactions with oxidizing agents. Can form very reactive substances with oxidizing agents. Possibility: &H:EUH031& No further data available.

#### 10.4 Conditions to avoid

But formation of explosive gases/vapours with air is possible. Use only in well ventilated rooms. No more required.

#### 10.5 Incompatible Materials

Avoid storage with oxidizing substances. ---

#### 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 chemicals. Quantitative data on the toxicity of this product are not available.

##### 300 mL MWA3

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1  
 TSCA Inventory: listed California Prop. 65 List: not listed  
 Canada CEPA 1999: DSL yes  
 LD50 orl rat : 475-907 mg/kg  
 LC50 ihl rat : 3181-7655 µg/m³/4H  
 Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

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

TSCA Inventory: listed California Prop. 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  
 Canada CEPA 1999: DSL yes  
 LD50 orl rat : 6200 mg/kg  
 LC<sub>Low</sub> ihl gpg : 21,900 mg/L  
 LC<sub>Low</sub> orl hmn : 1400 mg/kg  
 LC50 ihl mus : 123,4 mg/L/4H  
 LC50 ihl rat : 115,9-133,8 mg/L/4H  
 LD50 orl mus : 3450 mg/kg

##### 400 mL MWA2

Chemical: *2-propanol* CAS No.: 67-63-0  
 TSCA Inventory: listed California Prop. 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  
 Canada CEPA 1999: DSL yes  
 LD50 orl rat : 5045 mg/kg  
 LC<sub>Low</sub> orl hmn : 3570 mg/kg  
 LC50 ihl rat : 25 mg/L/4H

##### 12 mL B-Beads

Chemical: *magnetic particles, suspended in water* CAS No.: -  
 TSCA Inventory: listed (CAS 1309-38-2)



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4	NucleoMag DNA/RNA Water (4x96)	Page: 12/16
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.2.7

### 250 mL MWA4

Chemical: *ethanol* CAS No.: 64-17-5  
 TSCA Inventory: listed California Prop. 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  
 Canada CEPA 1999: DSL yes  
 LD50 orl rat : 6200 mg/kg  
 LC<sub>10</sub> ihl gpg : 21,900 mg/L  
 LC<sub>10</sub> orl hmn : 1400 mg/kg  
 LC50 ihl mus : 123,4 mg/L/4H  
 LC50 ihl rat : 115,9-133,8 mg/L/4H  
 LD50 orl mus : 3450 mg/kg

### 500 mL MWA1

Chemical: *guanidinium thiocyanate* CAS No.: 593-84-0  
 TSCA Inventory: listed California Prop. 65 List: not listed  
 Canada CEPA 1999: DSL yes  
 LD50 orl rat : 593 mg/kg  
 LC50 ihl rat : 5,319 mg/L/4H  
 Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

### 125 mL RNase-free H<sub>2</sub>O

Chemical: *water* CAS No.: 7732-18-5  
 TSCA Inventory: listed  
 LD50 orl rat : > 90000 mg/kg

## 11.2 Other Hazards

### Possible endocrine disrupting effects

data not available

### Other Information

no additional data available

## SECTION 12: Ecological Information

### 12.1 Toxicity

Following information is valid for pure chemicals.

#### 300 mL MWA3

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1  
 PNEC (fresh water) : -  
 PNEC = Predicted No Effect Concentration  
 LC50 leuciscus idus/96h : 1759 mg/L  
 LC50 fish/96h : [4d] 690-1850; [48h] 1758-2420 mg/L  
 EC50 daphnia/48h : 70.2 mg/L  
 EC10 pseudomonas putita/16h : [72h] 11.8-33.5 mg/L

Chemical: *ethanol* CAS No.: 64-17-5  
 PNEC (fresh water) : 0.96 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50 daphnia magna/48h : >100 g/L  
 LC50 pimephales promelas/96h : 13.4-15.1 g/L  
 LC50 leuciscus idus/96h : [48h] 8.14 g/L  
 LC50 fish/96h : 13 g/L  
 EC50 daphnia/48h : 9.3-14.2 g/L  
 IC50 scenedesmus quadricauda/72h : [7d] 5000 mg/L  
 EC10 pseudomonas putita/16h : [EC5] 6500 mg/L  
 Partition Coefficient (o/w) : -0,31

#### 400 mL MWA2

Chemical: *2-propanol* CAS No.: 67-63-0  
 PNEC (fresh water) : 140.9 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50 fish/96h : 1400 mg/L  
 EC50 daphnia/48h : 13.3 g/L



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 13/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

IC50 *scenedesmus quadricauda*/72h : >1000 mg/L  
 EC10 *pseudomonas putita*/16h : EC5: 1050 mg/L  
 Partition Coefficient (o/w) : 0,05

### 12 mL B-Beads

Chemical: *magnetic particles, suspended in water*

CAS No.: -

### 250 mL MWA4

Chemical: *ethanol*

CAS No.: 64-17-5

PNEC (fresh water) : 0.96 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50 *daphnia magna*/48h : >100 mg/L  
 LC50 *pimephales promelas*/96h : 13400 - 15100 mg/L  
 LC50 *leuciscus idus*/96h : [48h] 8140 mg/L  
 LC50 *fish*/96h : 13 g/L  
 EC50 *daphnia*/48h : 9.3-14.2 g/L  
 IC50 *scenedesmus quadricauda*/72h : [7d] 5000 mg/L  
 EC10 *pseudomonas putita*/16h : [EC5] 6500 mg/L  
 Partition Coefficient (o/w) : -0,31

### 500 mL MWA1

Chemical: *guanidinium thiocyanate*

CAS No.: 593-84-0

Harmful to aquatic life with long lasting effects. Avoid contact of chemical/mixture to environment.  
 Environmental hazards must not be labelled with P phrases until 125 mL (EU-CLP 1272/2008 Annex I - 1.5.2).

PNEC (fresh water) : 42.4 µg/L  
 PNEC = Predicted No Effect Concentration  
 LC50 *fish*/96h : [4d] 89.1 mg/L  
 EC50 *daphnia*/48h : 42.4 mg/L  
 IC50 *scenedesmus quadricauda*/72h : 130 mg/L  
 EC10 *pseudomonas putita*/16h : [10d] 200 mg/L  
 Partition Coefficient (o/w) : -1,11 pH 5.1

### 125 mL RNase-free H<sub>2</sub>O

Chemical: *water*

CAS No.: 7732-18-5

## 12.2 Persistence and Degradability

not necessary

## 12.3 Bioaccumulative Potential

not necessary

## 12.4 Mobility in Soil

not necessary

## 12.5 Results of PBT and vPvB Assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

## 12.6 Endocrine disrupting properties

data not available

## 12.7 Other Adverse Effects

no additional data available

## SECTION 13: Disposal Considerations

Do not collect in acidic waste. May form toxic gases.

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 (RCRA Code D002/D003, EU waste code number 16 05 06).

### 13.1 Waste Treatment Methods

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



MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
 CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
 FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
 US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4

NucleoMag DNA/RNA Water (4x96)

Page: 14/16

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.2.7

### SECTION 14: Transport Information

**14.1. UN/NA:** 1993 **14.2. Proper Shipping Name:** Flammable liquid, n.o.s. (2-propanol, ethanol, ethanol mixture)  
**14.3. Hazard Class:** 3 **14.4. Packing Group:** II  
*Transportation by Road*  
 Classification code: F1  
 Limited Quantity: 1 L Tunnel restriction code: E  
 Excepted Quantity: E 2 Special instructions: 640C  
*Air Transportation*  
 Limited Quantity: LQ 4  
 Excepted Quantity: E 2  
 PAX: 353 max. weight PAX: 5 L  
 CAO: 364 max. weight CAO: 60 L  
*Maritime Transport*  
 EmS: F-E, S-E Storage Category: B

#### 14.5 Environmental Hazards

none, contains only small quantities of hazardous substances, contains only small amounts of these substances

#### 14.6 Special Precautions for User

not necessary

#### 14.7 Carriage of bulk cargo by sea in accordance with IMO instruments

Not applicable.

### SECTION 15: Regulatory Information

#### 15.1 Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

##### U.S. Federal Regulations

OSHA "A Guide to The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"

<https://www.osha.gov/dsg/hazcom/ghs.html>

29 CFR 1910.1200 Hazard communication.

NIOSH Pocket Guide to Chemical Hazards

NIOSH Workplace Safety & Health Topics

TSCA Inventory

##### U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

##### Canada

Canada CEPA 1999 - Domestic Substances List (DSL), List of Toxic Substances (Schedule 1)

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

#### 15.2 Chemical Safety Assessment

not necessary for these small amounts

### SECTION 16: Other Information

#### 16.1 Changes compared to the last version

Between versions 2.2.2.7 and 2.2.2.2 following changes were applied: - 5 substance data corrected

#### 16.2 List of Hazard and Precaution Phrases

##### 16.2.1 List of relevant H Phrases

H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

##### 16.2.2 List of relevant P Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P260D	Do not breathe vapors.



MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
 CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
 FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
 US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4	NucleoMag DNA/RNA Water (4x96)	Page: 15/16
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.2.7

P264W	Wash with water thoroughly after handling.
P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P301+312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.

### 16.3 Recommended Restriction on Use

Only for Professional User.  
 Look about employee restrictions for young people!  
 Look about employee restrictions for pregnant women and nursing women!  
 An individual package of this product or test kit has a moderate hazardous potential.

### 16.4 Sources of Key Data

KÜHN, BIRETT, Leaflets on hazardous materials, 2021  
 Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres  
 SUVA .CH, limit values in the air at work 2009, revised on 01/2009  
 Regulation 790/2009/EU, adaptation of Regulation 1272/2008/EU to technical and scientific progress (1st ATP)  
 Regulation 453/2010/EU, adaptation of the REACH regulation 1907/2006/EG  
 Regulation 487/2013/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (4th ATP)  
 Regulation 1221/2015/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (7th ATP)  
 Regulation 776/2017/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (10th ATP)

Regulation 669/2018/EU, adaptation of Regulation 1272/2008/EC to technical and scientific progressText (11th ATP)  
 Regulation 1480/2018/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (13th ATP)  
 Regulation 521/2019/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (12th ATP)  
 TRGS 900, German rules of technology on limit values in the air at work, as of 03/2019  
 Regulation 217/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (14th ATP)  
 Regulation 878/2020/EU, adaptation of Annex II of the REACH regulation 1907/2006/EG  
 Regulation 1182/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (15th ATP)  
 Regulation 643/2021/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (16th ATP)  
 Regulation 849/2021/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (17th ATP)

#### revisions/updates

Reason for revision: 2014-02 Corrected structure of the sections according to Regulation 453/2010/EU, if necessary  
 2014-04 adjustment according Regulation 487/2013/EU  
 2016-03 adjustment according Regulation 1221/2015/EU  
 2017-08 adjustment according the Ordinance on Ethanol Denaturation 2016/1867/EU  
 2017-11 adjustment according the ECHA registration dossier  
 2022-11 adjustment according Regulation 878/2020/EU

### 16.5 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.

### 16.6 Legend / Abbreviations

acc:	according
ADR:	Convention concerning the International Carriage of Dangerous Goods by Road
Act:	acute
BAT:	biological workplace tolerance value
CAO:	Cargo Aircraft Only
Carc:	carcinogen
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging regulation
CMR:	carcinogen, mutagen, reproduction toxic
Corr:	corrosive
COD:	chemical oxygen demand
CSCL:	Chemical Substance Control Law (Jp)
Dam:	damage
DNEL:	Derived No-Effect Level (for workers)
derm:	dermal
dog:	dog
EC10:	Concentration causing a toxic effect in 10% of the test organisms



MACHEREY-NAGEL GmbH & Co. KG  
 Valenciener Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 info@mn-net.com  
 CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
 FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
 US Tel.: +1 888 321 62 24 sales-us@mn-net.com

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 744220.4	NucleoMag DNA/RNA Water (4x96)	Page: 16/16
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.2.7

EC:	European Community
EC-Nr:	Substance number of the EC substance inventory
EmS:	Guide to accident management measures on ships
EU:	European Union
fish:	fish (not specified)
GHS:	Global Harmonized System of Classification and Labeling of Chemicals
gpg:	guinea pig
ICAO:	International Civil Aviation Organization
ihl:	inhaled
IMDG:	International Maritime Dangerous Goods Code
intrav:	intravenous
ipt:	intraperitoneal
ISHL:	Industrial Safety and Health Law (Jp)
LC50:	letale concentration 50%
LD50:	letale dosis 50%
leuciscus idus:	fisch, ide, orfe
MAK:	maximum workplace concentration
Met:	Metall
mus:	mouse
Muta:	mutagen
NIOSH:	National Institute for Occupational Safety and Health (US)
NRD:	Non-rapidly degradable
onchorhynchus mykiss:	fish, rainbow trout
orl:	oral
OSHA:	Occupational Safety and Health Administration
PAX:	transport on passenger planes allowed
PBT:	persistent, bioaccumulating, toxic substance
pH:	pH value
pimephales promelas:	fish, fathead minnow
PNEC:	Predicted No Effected Concentration
PROC 15:	Process category 'for laboratory use'
PRTR:	Law for PRTR and Promotion of Chemical Management (Jp)
PVC:	polyvinyl chloride
quail:	bird, quail
rat:	rat
rbt:	rabbit
RD:	rapidly degradable
RE:	repeated
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
REF:	item number, reference number
Reg.No.:	rRegistration number
Repr:	harmful to reproduction
Resp:	respiratory
scu:	sub cutan
RIP:	REACH Implementations Projects
SDS:	safety data sheet
Sens:	sensitisation
STEL:	short term exposure limit
STOT:	Specific Target Organ Toxicity
SVHC:	Substance of Very High Concern
t/a:	tons per year
TCCA:	Toxic Chemicals Control Act (S. Korea)
Tox:	toxic
TSCA:	The Toxic Substances Control Act (US)
TWA:	time weighted average
TRGS:	technical regulations (DE)
vPvB:	very persistent, very bioaccumulating substance

### 16.7 Training Advice

Regular safety training. 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.



MACHEREY-NAGEL GmbH & Co. KG  
 Valenciener Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 info@mn-net.com  
 CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
 FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
 US Tel.: +1 888 321 62 24 sales-us@mn-net.com