

# Safety Data Sheet

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

REF: 740142.10	NucleoBond RNA Soil Mini (10)	Page: 1/16
Printing date: 12.05.2021	Date of issue: 17.02.2021	

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

### 1.1 Product identifier

REF 740142.10  
 Product name NucleoBond RNA Soil Mini (10)

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 6 mL AQ
- 1 x 13 mL E1
- 1 x 10 mL E2
- 1 x 13 mL E3
- 1 x 30 mL E4
- 1 x 30 mL EQU
- 1 x 13 mL ERNA
- 1 x 3 mL OPT
- 1 x 13 mL RNase-free H<sub>2</sub>O

### 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



GHS02

Signal word WARNING

Hazard identification	Hazard classes/categories
H226	Flam. Liq. 3

### 2.1 Classification of the substance or mixture

6 mL AQ

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: 740142.10	NucleoBond RNA Soil Mini (10)	Page: 2/16
Printing date: 12.05.2021	Date of issue: 17.02.2021	

**13 mL E1**

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

**10 mL E2**

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

**13 mL E3**

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

**30 mL E4**



Signal word GHS02  
WARNING  
**Hazard identification** **Hazard classes/categories**  
H226 Flam. Liq. 3

**30 mL EQU**

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

**13 mL ERNA**



Signal word GHS02  
WARNING  
**Hazard identification** **Hazard classes/categories**  
H226 Flam. Liq. 3

**3 mL OPT**

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

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

Do not need labelling as hazardous

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 3/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

Signal word -

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).

### 6 mL AQ

Do not need labelling as hazardous  
Signal word: -

### 13 mL E1

Do not need labelling as hazardous  
Signal word: -

### 10 mL E2

Do not need labelling as hazardous  
Signal word: -

### 13 mL E3

Do not need labelling as hazardous  
Signal word: -

### 30 mL E4



GHS02

Signal word: WARNING

### 30 mL EQU

Do not need labelling as hazardous  
Signal word: -

### 13 mL ERNA



GHS02

Signal word: WARNING

### 3 mL OPT

Do not need labelling as hazardous  
Signal word: -

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

Do not need labelling as hazardous  
Signal word: -

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 4/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

## 2.3 Other hazards

### Possible hazards from physicochemical properties

Flammable properties. 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

---

### Information pertaining to particular risks to the environment

---

### Other hazards

---

## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 6 mL AQ

Chemical: *inorganic salts, declaration not necessary* CAS No.: -  
 Classification: No criteria for classification or naming of chemical not required.  
 Pseudonym: not hazardous  
 TSCA Inventory: all listed  
 KE No.: listed  
 Concentration: 1 - <3 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

#### 13 mL E1

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3  
 Classification: H228, Flam. Sol. 1, H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H318, Eye Dam. 1, H332, Acute Tox. 4 inh., H335, STOT SE 3, H412, Aquatic Chronic 3  
 Formula: C<sub>12</sub> H<sub>25</sub> NaO<sub>4</sub> S  
 Pseudonym: sodium lauryl sulfate, sulfuric acid monododecyl ester sodium salt  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119489461-32-xxxx  
 EC No.: 205-788-1  
 RTECS: WT1050000 MFCD: 00036175  
 KE No.: KE-21884  
 Concentration: 1 - <2.5 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *sodium chloride* CAS No.: 7647-14-5  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: NaCl  
 Pseudonym: salt  
 TSCA Inventory: listed  
 REACH Reg. No.: exempt, Annex V  
 EC No.: 231-598-3  
 RTECS: VZ4725000  
 KE No.: KE-31387  
 Concentration: 1 - <5 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *tris(hydroxymethyl)aminomethane* CAS No.: 77-86-1  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: C<sub>4</sub> H<sub>11</sub> NO<sub>3</sub>  
 Pseudonym: Trometamol, 2-amino-2-(hydroxymethyl)-1,3-propanediol  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119957659-16-0014  
 EC No.: 201-064-4  
 RTECS: TY2900000 MFCD: 00004679  
 KE No.: KE-01403  
 Concentration: 1 - <3 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 5/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

**10 mL E2**

Chemical: *acetate buffer solution*  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $\text{CH}_3\text{COOH}/\text{K}/\text{Na}\cdot\text{H}_2\text{O}$   
 TSCA Inventory: all listed  
 KE No.: listed  
 Concentration: 45 - <60 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: -

**13 mL E3**

Chemical: *water*  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $\text{H}_2\text{O}$   
 TSCA Inventory: listed  
 REACH Reg. No.: exempt, Annex IV  
 EC No.: 231-791-2  
 RTECS: ZC0110000  
 KE No.: KE-35400  
 Concentration: 90 - <100 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 7732-18-5

**30 mL E4**

Chemical: *guanidinium thiocyanate*  
 Classification: H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H314, Skin Corr. 1B, H332, Acute Tox. 4 inh., H412, Aquatic Chronic 3  
 Formula:  $\text{C}_2\text{H}_6\text{N}_4\text{S}$   
 Pseudonym: guanidine rhodanide  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2120735072-65-0001  
 EC No.: 209-812-1  
 RTECS: XL1225000  
 KE No.: not listed  
 Concentration: 5 - <10 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 593-84-0

Indice No.: 615-004-00-3  
 MFCD: 00013027

Chemical: *ethanol (diluted < 20 %)*  
 (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)  
 Classification: H225, Flam. Liq. 2  
 Formula:  $\text{C}_2\text{H}_6\text{O}$ ;  $\text{C}_2\text{H}_5\text{OH}$   
 Pseudonym: ethyl alcohol, methylated spirit  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119457610-43-xxxx  
 EC No.: 200-578-6  
 RTECS: KQ6300000  
 KE No.: KE-13217  
 Concentration: 5 - <20 %  
 acc. CLP (GHS): H226, Flam. Liq. 3

CAS No.: 64-17-5d

Indice No.: 603-002-00-5  
 MFCD: 00003568

**30 mL EQU**

Chemical: *potassium chloride*  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: KCl  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119539416-36-xxxx  
 EC No.: 231-211-8  
 RTECS: TS8050000  
 KE No.: KE-29086  
 Concentration: 1 - <10 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 7447-40-7

MFCD: 00011360

**13 mL ERNA**



# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 6/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

Chemical: *ethanol* (diluted < 20 %) CAS No.: 64-17-5d  
 (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 Indice No.: 603-002-00-5  
 RTECS: KQ6300000 MFCD: 00003568  
 KE No.: KE-13217  
 Concentration: 5 - <20 %  
 acc. CLP (GHS): H226, Flam. Liq. 3

Chemical: *lithium chloride* CAS No.: 7447-41-8  
 Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2  
 Formula: LiCl  
 TSCA Inventory: listed  
 REACH Reg. No.: 01- 2119560574-35-xxxx  
 EC No.: 231-212-3  
 RTECS: OJ5950000  
 KE No.: KE-22552  
 Concentration: 1 - <10 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

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.

### 3 mL OPT

Chemical: *acetate buffer solution* CAS No.: -  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: CH<sub>3</sub>COOH/K/Na•H<sub>2</sub>O  
 TSCA Inventory: all listed  
 KE No.: listed  
 Concentration: 15 - <25 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

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

Chemical: *water* CAS No.: 7732-18-5  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: H<sub>2</sub>O  
 TSCA Inventory: listed  
 REACH Reg. No.: exempt, Annex IV  
 EC No.: 231-791-2  
 RTECS: ZC0110000  
 KE No.: KE-35400  
 Concentration: 90 - <100 %  
 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.

#### 4.1.1 After SKIN Contact

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 7/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).

#### 4.1.3 After INHALATION of vapours

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

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested. ---

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

---

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

No additionally recommendations. ---

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

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

WARNING: Flammable (GHS regulation). May form explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible. ---

### 5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

### 5.4 Additional information

---

## SECTION 6: Accidental release measures

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

Do not breathe vapours. Regular staff training is necessary.

### 6.2 Environmental precautions

not necessary

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

Bind any escaping liquid with inert absorbent.  
Collect small amounts of leaked liquid and flush with water into drains.

### 6.4 Reference to other sections

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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

The original product package of MACHEREY-NAGEL allows a safe storage.

Storage class (VCI): 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.

### 7.3 Specific end use(s)

Product for analytical use.

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 8/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**6 mL AQ**

Chemical: *inorganic salts, declaration not necessary*

CAS No.: -

**13 mL E1**

Chemical: *dodecyl sulfate, sodium salt*

CAS No.: 151-21-3

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: *sodium chloride*

CAS No.: 7647-14-5

Chemical: *tris(hydroxymethyl)aminomethane*

CAS No.: 77-86-1

DNEL: [derm] 166.7 mg/kg bw/day; [inh] 117.5 mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: no data mg/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

**10 mL E2**

Chemical: *acetate buffer solution*

CAS No.: -

**13 mL E3**

Chemical: *water*

CAS No.: 7732-18-5

**30 mL E4**

Chemical: *guanidinium thiocyanate*

CAS No.: 593-84-0

DNEL: [inh] 1092 µg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 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

Chemical: *ethanol*

CAS No.: 64-17-5d

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

**30 mL EQU**

Chemical: *potassium chloride*

CAS No.: 7447-40-7

**13 mL ERNA**

Chemical: *ethanol*

CAS No.: 64-17-5d

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 ppm / 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



# Safety Data Sheet

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

REF: 740142.10	NucleoBond RNA Soil Mini (10)	Page: 9/16
Printing date: 12.05.2021	Date of issue: 17.02.2021	

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

Chemical: *lithium chloride* CAS No.: 7447-41-8  
 DNEL: 73.2<sub>derm</sub> mg/kg bw/d; 10<sub>inh</sub> mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 1.2 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 0.2 E mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 1 (I), Y  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: [als Li][MAK] 0,2 e/[STEL] 0,2 e mg/m<sup>3</sup>

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

**3 mL OPT**  
 Chemical: *acetate buffer solution* CAS No.: -

**13 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 Hand protection**  
 Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

**8.2.3 Eye protection**  
 Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

**8.2.4 Skin protection**  
 Not necessary.

**8.2.5 Personal hygiene**  
 Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**6 mL AQ**  
 Appearance: liquid Colour: colourless Odor: odorless  
 pH: 7.5-8  
 Specific gravity: 1.01 g/cm<sup>3</sup>

**13 mL E1**  
 Appearance: liquid Colour: colourless Odor: odorless  
 pH: 6.5-7.5  
 Specific gravity: 1.02 g/cm<sup>3</sup>

**10 mL E2**  
 Appearance: liquid Colour: colourless Odor: acetic  
 pH: 5-6  
 Specific gravity: 1.19 g/cm<sup>3</sup>

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 10/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

**13 mL E3**

Appearance: liquid

pH:

Specific gravity:

Colour: colourless

6-8

1.0 g/cm<sup>3</sup>

Odor: odorless

**30 mL E4**

Appearance: liquid

pH:

Flash point:

Specific gravity:

Colour: colourless

6.5-7.5

35 °C

0.98 g/cm<sup>3</sup>

Odor: alcoholic

**30 mL EQU**

Appearance: liquid

pH:

Specific gravity:

Colour: colourless

6-7

1.05 g/cm<sup>3</sup>

Odor: odorless

**13 mL ERNA**

Appearance: liquid

pH:

Flash point:

Specific gravity:

Colour: colourless

6.5-7.5

36 °C

0.98 g/cm<sup>3</sup>

Odor: alcoholic

**3 mL OPT**

Appearance: liquid

pH:

Colour: colourless

7-8

Odor: acetic

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

Appearance: liquid

pH:

Specific gravity:

Colour: colourless

6-8

1.0 g/cm<sup>3</sup>

Odor: odorless

**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**

---

**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. Possible: Contact with acids liberates toxic gas. No further data available.

**10.4 Conditions to avoid**

---

**10.5 Incompatible materials****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.

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 11/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 6 mL AQ

Chemical: *inorganic salts, declaration not necessary* CAS No.: -  
 TSCA Inventory: all listed  
 Korea Exist.Chem.Inventory: listed

#### 13 mL E1

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: PRTR - Class I Designated Chemical Substance, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-21884  
 LD50<sub>orl rat</sub>: 1288 mg/kg  
 LC50<sub>inh rat</sub>: 3900<sub>1h</sub> mg/m<sup>3</sup>  
 LD50<sub>drm rbt</sub>: 10 g/kg

Chemical: *sodium chloride* CAS No.: 7647-14-5  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-31387  
 LD50<sub>orl rat</sub>: 3000 mg/kg  
 LD50<sub>drm rbt</sub>: 10 g/kg

Chemical: *tris(hydroxymethyl)aminomethane* CAS No.: 77-86-1  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-01403  
 LD50<sub>orl rat</sub>: 5000 mg/kg

#### 10 mL E2

Chemical: *acetate buffer solution* CAS No.: -  
 TSCA Inventory: all listed  
 Korea Exist.Chem.Inventory: listed

#### 13 mL E3

Chemical: *water* CAS No.: 7732-18-5  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-35400

#### 30 mL E4

Chemical: *guanidinium thiocyanate* CAS No.: 593-84-0  
 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: not listed  
 LD50<sub>orl rat</sub>: 593 mg/kg  
 LC50<sub>drm rbt</sub>: >2000 mg/m<sup>3</sup>  
 LC50<sub>ihl rat</sub>: [4h] 5.319 mg/L  
 LD50<sub>ipr mus</sub>: 300 mg/kg

# Safety Data Sheet

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

REF: 740142.10      NucleoBond RNA Soil Mini (10)      Page: 12/16  
 Printing date: 12.05.2021      Date of issue: 17.02.2021

Chemical: *ethanol*      CAS No.: 64-17-5d  
 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 ≥0,1%/≥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

### 30 mL EQU

Chemical: *potassium chloride*      CAS No.: 7447-40-7  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-29086  
 LD50<sub>orl rat</sub>: 2600 mg/kg

### 13 mL ERNA

Chemical: *ethanol*      CAS No.: 64-17-5d  
 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 ≥0,1%/≥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: *lithium chloride*      CAS No.: 7447-41-8  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-22552  
 LD50<sub>orl rat</sub>: 526 mg/kg

Chemical: *chemicals/mixture < 1%*      CAS No.: -  
 TSCA Inventory: all listed, <1%  
 Korea Exist.Chem.Inventory: listed



# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 13/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

## 3 mL OPT

Chemical: *acetate buffer solution*  
 TSCA Inventory: all listed  
 Korea Exist.Chem.Inventory: listed

CAS No.: -

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

Chemical: *water*  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-35400

CAS No.: 7732-18-5

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 6 mL AQ

Chemical: *inorganic salts, declaration not necessary*  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

CAS No.: -

#### 13 mL E1

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

CAS No.: 151-21-3

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

CAS No.: 7647-14-5

Chemical: *tris(hydroxymethyl)aminomethane*  
 PNEC<sub>(fresh water)</sub>: no data mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50<sub>fish/96h</sub>: LD0 (4d): 1-10 g/L  
 EC50<sub>pseudokirchneriella subcapitata/72h</sub>: 397; 48h: 473 mg/L  
 EC10<sub>pseudomonas putita/16h</sub>: 13h g/L  
 Water hazard class (DE): 2  
 Dispersion coefficient<sub>(octanol-water)</sub>: -1.56  
 Storage class (VCI): 12-13

CAS No.: 77-86-1

#### 10 mL E2

Chemical: *acetate buffer solution*  
 Storage class (VCI): 12

CAS No.: -

#### 13 mL E3

Chemical: *water*

CAS No.: 7732-18-5

#### 30 mL E4

Chemical: *guanidinium thiocyanate*  
 PNEC<sub>(fresh water)</sub>: 42.4 µg/L  
 PNEC = Predicted No Effect Concentration  
 LC50<sub>fish/96h</sub>: [4d] 89.1 mg/L  
 EC50<sub>daphnia/48h</sub>: 42.4 mg/L  
 IC50<sub>scenedesmus quadricauda/72h</sub>: 130 mg/L  
 EC10<sub>pseudomonas putita/16h</sub>: [10d] 200 mg/L  
 Water hazard class (DE): 3  
 Dispersion coefficient<sub>(octanol-water)</sub>: [pH 5.1] -1.11  
 Storage class (VCI): 12

CAS No.: 593-84-0

**Safety Data Sheet**

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

REF: 740142.10	NucleoBond RNA Soil Mini (10)	Page: 14/16
Printing date: 12.05.2021	Date of issue: 17.02.2021	

Chemical: *ethanol* CAS No.: 64-17-5d  
 PNEC(fresh water) : 0.96 mg/L  
 PNEC = Predicted No Effected Concentration  
 LC50daphnia magna/48h : >100 g/L  
 LC50pimephales promelas/96h : 13.4-15.1 g/L  
 LC50leuciscus idus/96h : [48h] 8.14 g/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

**30 mL EQU**

Chemical: *potassium chloride* CAS No.: 7447-40-7  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

**13 mL ERNA**

Chemical: *ethanol* CAS No.: 64-17-5d  
 PNEC(fresh water) : 0.96 mg/L  
 PNEC = Predicted No Effected Concentration  
 LC50daphnia magna/48h : >100 g/L  
 LC50pimephales promelas/96h : 13.4-15.1 g/L  
 LC50leuciscus idus/96h : [48h] 8.14 g/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: *lithium chloride* CAS No.: 7447-41-8  
 PNEC(fresh water) : 1.2 mg/L  
 PNEC = Predicted No Effected Concentration  
 LC50fish/96h : 158 mg/L  
 EC50daphnia/48h : 249 mg/L  
 EC50pseudokirchneriella subcapitata/72h : IC50/72h: 400 mg/L  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

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

**3 mL OPT**

Chemical: *acetate buffer solution* CAS No.: -  
 Storage class (VCI): 12

**13 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**



# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 15/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

no data available

## 12.6 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 (waste code number 16 05 06).

### 13.1 Waste treatment methods

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

## SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according the transport regulations (Ethanol: ADR SI144/ IATA A58)

### 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.

#### 16.1.2 List of relevant P phrases

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

### 16.2 Training advice

Regular safety training.

### 16.3 Recommended restriction on use

Only for professional user.

An individual package of this product or test kit has a moderate hazardous potential.

### 16.4 Further information

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.

# Safety Data Sheet

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

REF: 740142.10

NucleoBond RNA Soil Mini (10)

Page: 16/16

Printing date: 12.05.2021

Date of issue: 17.02.2021

## 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  
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