



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10

NucleoSpin RNA Stool (10)

Page: 2/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

### 2.1 Classification of the substance or mixture

#### 6 mL NucleoZOL



GHS05 GHS06 GHS08

Signal Word DANGER

Hazard Identification	Hazard Classes/Categories
H301	Acute Tox. 3 oral
H311	Acute Tox. 3 derm.
H314	Skin Corr. 1B
H331	Acute Tox. 3 inh.
H341	Muta. 2
H373	STOT RE 2
H412	Aquatic Chronic 3

#### 13 mL RST2



GHS02 GHS07 GHS08

Signal Word DANGER

Hazard Identification	Hazard Classes/Categories
H225	Flam. Liq. 2
H319	Eye Irrit. 2
H335	STOT SE 3
H351	Carc. 2

#### 6 mL RST3



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

#### 10 mL RST4



GHS02

Signal Word WARNING

Hazard Identification	Hazard Classes/Categories
H226	Flam. Liq. 3



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: 740130.10	NucleoSpin RNA Stool (10)	Page: 3/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

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

Signal Word Do not need labelling as hazardous  
-  
No Hazard Class

### 200 U rDNase, RNase free (Iyo)



GHS08

Signal Word DANGER

Hazard Identification	Hazard Classes/Categories
H334	Resp. Sens. 1

### 6 mL RST5

Signal Word Do not need labelling as hazardous  
-  
No Hazard Class

### 7 mL Reaction Buffer for rDNase

Signal Word Do not need labelling as hazardous  
-  
No Hazard Class

### 10 mL RST1

Signal Word Do not need labelling as hazardous  
-  
No Hazard Class

### Bead Tubes Type A

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. This labelling exemption is NOT valid for sensiblizing substances.

### 6 mL NucleoZOL



GHS05



GHS06



GHS08



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: 740130.10

NucleoSpin RNA Stool (10)

Page: 4/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

Signal Word: DANGER

H301, H311, H314, H331, H341

Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Toxic if inhaled. Suspected of causing genetic defects.

P201, P260sh, P280sh, P301+310, P303+361+353, P305+351+338, P405

Do not breathe dust/vapors. Obtain special instructions before use. Wear protective gloves/eye protection. IF

SWALLOWED: Immediately call a POISON CENTER/ doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up.

### 13 mL RST2



GHS02



GHS07



GHS08

Signal Word: DANGER

H351

Suspected of causing cancer.

P201, P280sh

Obtain special instructions before use. Wear protective gloves/eye protection.

### 6 mL RST3



GHS02



GHS07

Signal Word: WARNING

### 10 mL RST4



GHS02

Signal Word: WARNING

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

Do not need labelling as hazardous

Signal Word: -

### 200 U rDNase, RNase free (Iyo)



GHS08

Signal Word: DANGER

H334

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

P261sh, P342+311

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

### 6 mL RST5

Do not need labelling as hazardous

Signal Word: -

### 7 mL Reaction Buffer for rDNase

Do not need labelling as hazardous

Signal Word: -

### 10 mL RST1

Do not need labelling as hazardous

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10	NucleoSpin RNA Stool (10)	Page: 5/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

Signal Word: -

### Bead Tubes Type A

Do not need labelling as hazardous

Signal Word: -

### Label elements of the complete product



Signal Word: DANGER

H301, H311, H314, H331, H334, H341, H351

Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage. Toxic if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. Suspected of causing cancer.

P201, P260sh, P280sh, P301+310, P303+361+353, P305+351+338, P405

Do not breathe dust/vapors. Obtain special instructions before use. Wear protective gloves/eye protection. IF

SWALLOWED: Immediately call a POISON CENTER/ doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up.

## 2.3 Other Hazards

### Possible Hazards from physicochemical Properties

Generally in the case of pH values are less than 2 or higher than 11.5 then it is corrosive. In the case of pH values are less than 5 or higher than 9 then it is irritant. 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

Causes varying degrees of acid burns on the skin, to the eyes and to the mucous membranes and wounds which do not heal quickly depending on the concentration, temperature and the exposure time. Vapors especially which steam from hot liquids and mist can have a severe irritant effect upon the eyes and the respiratory organs.

Cause severe after oral intake, inhalation of vapors, skin contact, impairments of health or can lead to death even when only ingested in small quantities. Cause after inhalation of vapors/dust, impairments of health when ingested in small quantities. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. Suspected of causing cancer.

Kit contains small amounts of enzymes, which may cause sensitization by direct and repeated contact.

### Information pertaining to particular Risks to the Environment

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

#### 6 mL RST3

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

Indice No.: 607-148-00-0

Concentration: 24 - <36 %

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



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: 740130.10	NucleoSpin RNA Stool (10)	Page: 6/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

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

### 6 mL NucleoZOL

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: 30 - <45 %  
 acc. GHS: H302, Acute Tox. 4 oral, H412, Aquatic Chronic 3

Indice No.: 615-004-00-3

Substance name: *phenol*  
 CAS No.: 108-95-2  
 Substance rating: H301, Acute Tox. 3 oral, H311, Acute Tox. 3 derm., H314, Skin Corr. 1B, H331, Acute Tox. 3 inh., H341, Muta. 2, H373, STOT RE 2  
 Chemical Formula: C<sub>6</sub>H<sub>6</sub>O; C<sub>6</sub>H<sub>5</sub>-OH  
 Synonyms (de): Oxybenzol  
 REACH Reg. No.: 01-2119471329-32-xxxx  
 EC No.: 203-632-7  
 Concentration: 30 - <60 %  
 acc. GHS: H301, Acute Tox. 3 oral, H311, Acute Tox. 3 derm., H314, Skin Corr. 1B, H331, Acute Tox. 3 inh., H341, Muta. 2, H373, STOT RE 2

Indice No.: 604-001-00-2

### 200 U rDNase, RNase free (Iyo)

Substance name: *rDNase*  
 CAS No.: 9003-98-9  
 Substance rating: H334, Resp. Sens. 1  
 Chemical Formula: Enzyme Comm. No. 3.1.21.1, origin: cloned  
 Synonyms (de): Deoxyribonucleodepolymerase  
 EC No.: 232-667-0  
 Concentration: 90 - <100 %  
 acc. GHS: H334, Resp. Sens. 1

### 6 mL RST5

Substance name: *chemicals/mixture until 1%*  
 CAS No.: -  
 Substance rating: No criteria for classification or naming of chemical is not required.  
 Concentration: 0,1 - <1 %  
 acc. GHS: The criteria for classification are not fulfilled.

### 10 mL RST1

Substance name: *chemicals/mixture until 2%*  
 CAS No.: -  
 Substance rating: No criteria for classification or naming of chemical is not required.  
 Concentration: 1 - <2 %  
 acc. GHS: The criteria for classification are not fulfilled.



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10

NucleoSpin RNA Stool (10)

Page: 7/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

### 7 mL Reaction Buffer for rDNase

Substance name: *chemicals/mixture until 2%*  
CAS No.: -

Substance rating: No criteria for classification or naming of chemical is not required.  
Concentration: 1 - <2 %  
acc. GHS: The criteria for classification are not fulfilled.

### 13 mL RST2

Substance name: *1,4-dioxane*  
CAS No.: 123-91-1

Substance rating: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H335, STOT SE 3, H351, Carc. 2  
Chemical Formula: C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>  
Synonyms (de): Glycoethylether, Ethylendioxid  
REACH Reg. No.: 01-2119462837-26-0001  
**SVHC listed: listed (08/07/2021) Cand. Lst. REACH Art59(10)**  
EC No.: 204-661-8 Indice No.: 603-024-00-5  
Concentration: 90 - <100 %  
acc. GHS: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H335, STOT SE 3, H351, Carc. 2

### Bead Tubes Type A

Substance name: *Ceramic particles*  
CAS No.: -

Substance rating: No criteria for classification or naming of chemical is not required.  
Concentration: 95 - <100 %  
acc. GHS: The criteria for classification are not fulfilled.

### 10 mL RST4

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 Indice No.: 615-004-00-3  
Concentration: 5 - <10 %  
acc. GHS: The criteria for classification are not fulfilled.

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 Indice No.: 603-002-00-5  
Concentration: 35 - <55 %  
acc. GHS: H226, Flam. Liq. 3

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

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.



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10	NucleoSpin RNA Stool (10)	Page: 8/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

### 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. Remove contaminated clothing. Show product package, packing insert and this material safety data sheet to the doctor. Take to a doctor, in a raised position if there are breathing difficulties.

#### 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. If vomiting and if insensible place patient in recovery position and 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 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

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Chronic effects: Repeated contact, even in small amounts, can lead to sensitization. Rapid penetration and destruction of the skin. Especially in the heated form. Causes severe skin burns and eye damage. CMR Effekte: Suspected of causing genetic defects. Suspected of causing cancer.

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

**CORROSIVE DAMAGE:** After SKIN CONTACT rinse with water for a long time. Efforts to neutralise the substance can frequently make matters worse. 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 be carried out by an eye specialist. After INTAKE administer aluminium oxide drug suspensions. Administer a prophylaxis to counter pulmonary oedema following the INGESTION of corrosive aerosols. In the event of RESPIRATORY DISTRESS ensure that the patient inhales oxygen. **TOXIFICATION:** Treat symptomatically. Secure the breathing, heart and circulatory function. Remove the substance quickly from the body. Mechanically induce vomiting or ensure the patient eats medicinal charcoal compressed tablets or drinks aluminium oxide drug suspensions. In order to ensure rapid passage through the colon (administer 2 tablespoons of dissolved Glauber's salt). Alleviation of pain, if necessary sedation. Shock treatment. Administer a prophylaxis to counter pulmonary oedema. Inform patient respectively further measures and the possibility of long-term damages. ---

## 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. Product package burns like paper or plastic. 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.





# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10	NucleoSpin RNA Stool (10)	Page: 9/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

### 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, respectively face protection. 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

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. Products containing also toxic substances should be kept locked up. Storage class (German chemical industry): see chapter 12.1

**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, 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, so that they are not immediately accessible to outside parties. 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

#### 6 mL RST3

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: 740130.10

NucleoSpin RNA Stool (10)

Page: 10/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

### 6 mL NucleoZOL

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

### Chemical: *phenol*

CAS No.: 108-95-2  
 PNEC (fresh water): 0.0077 mg/L  
PNEC = Predicted No Effect Concentration  
 NIOSH: [skin]TWA 5 ppm / 19 mg/m<sup>3</sup>; C 15.6 ppm / 60 15min mg/m<sup>3</sup>  
 NIOSH STEL: 15.6 ppm / 60 15 min 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: [skin] TWA 5 ppm / 19 mg/m<sup>3</sup>  
 EU value: 2 ppm / 7.8 mg/m<sup>3</sup>

### 200 U rDNase, RNase free (Iyo)

Chemical: *rDNase* CAS No.: 9003-98-9

### 6 mL RST5

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

### 10 mL RST1

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

### 7 mL Reaction Buffer for rDNase

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

### 13 mL RST2

Chemical: *1,4-dioxane* CAS No.: 123-91-1  
 DNEL: 73 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)  
 PNEC (fresh water): 10 mg/L  
PNEC = Predicted No Effect Concentration  
 NIOSH: Occupational Carcinogen List Yes; TWA 30min 1 ppm / 3.6 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: [skin] TWA 100 ppm / 360 mg/m<sup>3</sup>  
 EU value: 20 ppm / 73 mg/m<sup>3</sup>

### Bead Tubes Type A

Chemical: *Ceramic particles* CAS No.: -

### 10 mL RST4

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

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: 740130.10	NucleoSpin RNA Stool (10)	Page: 11/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

**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

Use for open access of these substances for example a vapor/dust respirator, class A/AX. 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 or Face Protection.

#### 8.2.4 Skin Protection

Recommended to avoid clothing damage, and 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.

## SECTION 9: Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

#### 6 mL RST3

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:	26 °C
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	5-7
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

#### 6 mL NucleoZOL

a) State of aggregation:	liquid
b) Color:	blue
c) Odor:	aromatic
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



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: 740130.10

NucleoSpin RNA Stool (10)

Page: 12/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	>0.46 25°C hPa
p) Specific Gravity:	data not available
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

**200 U rDNase, RNase free (lyo)**

a) State of aggregation:	solid (lyophilized)
b) Color:	white
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

**6 mL RST5**

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:	7-8
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:	1.00 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

**10 mL RST1**

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:	7.5-8.5
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:	1.02 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available



MACHEREY-NAGEL GmbH & Co. KG  
 Valenciennes 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: 740130.10

NucleoSpin RNA Stool (10)

Page: 13/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

r) Particle Size: data not available

### 7 mL Reaction Buffer for rDNase

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:	1.01 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

### 13 mL RST2

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	odorless
d) Melting Point:	12 °C
e) Boiling Point:	101.5 °C
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	1.9-22.5 Vol%
h) Flash Point:	11 °C
i) Autoignition Temperature:	375 °C
j) Decomposition Temperature:	data not available
k) pH Value:	6-8
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	< 2 %
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	41 hPa
p) Specific Gravity:	1.01-1.03 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	3.04
r) Particle Size:	data not available

### Bead Tubes Type A

a) State of aggregation:	solid
b) Color:	white
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:	0.6-0.8 mm



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: 740130.10

NucleoSpin RNA Stool (10)

Page: 14/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

### 10 mL RST4

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:	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:	data not available
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

### 13 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. Substances are highly corrosive.

## 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

Can react violently with organic material. Can form very reactive substances with oxidizing agents. Possibility: &H:EUH031& No further data available.

### 10.4 Conditions to avoid

No more required.



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: 740130.10	NucleoSpin RNA Stool (10)	Page: 15/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

### 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.

## 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.

#### 6 mL RST3

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/m<sup>3</sup>/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\_Low ihl gpg : 21,900 mg/L  
 LC\_Low 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

#### 6 mL NucleoZOL

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.

Chemical: *phenol* CAS No.: 108-95-2

TSCA Inventory: listed  
 ACGIH: 19 ppm  
 Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system, liver, kidneys  
 Symptoms: irritation eyes, nose, throat; anorexia, weight loss; lassitude (weakness, exhaustion), muscle ache, pain; dark urine; cyanosis; liver, kidney damage  
 LD50 orl rat : 317 mg/kg  
 LC\_Low orl hmn : 140 mg/kg  
 LC50 ihl rat : 0,51 mg/L  
 LD50 orl mus : 270 mg/kg  
 Acute Effects: Cause severe after oral intake, inhalation of vapors, skin contact, impairments of health or can lead to death even when only ingested in small quantities.  
 Chronic Effects: May cause damage to organs through prolonged or repeated exposure.  
 Carcinogenic Effects: Suspected of causing genetic defects.  
 EU carcinogen: Germ Cell Mutagenicity cat. 2

#### 200 U rDNase, RNase free (Iyo)

Chemical: *rDNase* CAS No.: 9003-98-9

TSCA Inventory: listed

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

Chronic Effects: May cause sensitization by skin contact, also in repeated contact of small amounts. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### 6 mL RST5



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10	NucleoSpin RNA Stool (10)	Page: 16/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

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

**10 mL RST1**  
 Chemical: *chemicals/mixture until 2%* CAS No.: -  
 TSCA Inventory: all listed, <2%

**7 mL Reaction Buffer for rDNase**  
 Chemical: *chemicals/mixture until 2%* CAS No.: -  
 TSCA Inventory: all listed, <2%

**13 mL RST2**  
 Chemical: *1,4-dioxane* CAS No.: 123-91-1  
 TSCA Inventory: listed California Prop. 65 List: listed cancer  
 Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system, liver, kidneys; [in animals: lung, liver & nasal cavity tumors]  
 Symptoms: irritation eyes, skin, nose, throat; drowsiness, headache; nausea, vomiting; liver damage; kidney failure; [potential occupational carcinogen]  
 Canada CEPA 1999: DSL Yes  
 LD50 orl rat : 5150 mg/kg  
 LC50 ihl rat : 155 mg/L  
 Acute Effects: Cause after inhalation of vapors/dust, impairments of health when ingested in small quantities.  
 Carcinogenic Effects: Suspected of causing cancer.  
 EU carcinogen: Carcinogenicity cat. 2

**Bead Tubes Type A**  
 Chemical: *Ceramic particles* CAS No.: -  
 TSCA Inventory: not applicable

**10 mL RST4**  
 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

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\_Low ihl gpg : 21,900 mg/L  
 LC\_Low 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

**13 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





# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10

NucleoSpin RNA Stool (10)

Page: 17/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

### SECTION 12: Ecological Information

#### 12.1 Toxicity

Following information is valid for pure chemicals.

##### 6 mL RST3

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

##### 6 mL NucleoZOL

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

Chemical: *phenol*

CAS No.: 108-95-2

Avoid contact of chemical/mixture to environment.

PNEC (fresh water): 0.0077 mg/L

PNEC = Predicted No Effect Concentration

LC50 daphnia magna/48h : EC10 16d : 0,46 mg/L

LC50 fish/96h : 8.9 mg/L

EC50 daphnia/48h : 4.24-10.7/ 10.2-15.5 mg/L

EC50 pseudokirchneriella subcapitata/72h : EC50 96h : 46.42 mg/L

IC50 scenedesmus quadricauda/72h : EC50: 187-279 mg/L

Partition Coefficient (o/w) : 1,47

##### 200 U rDNase, RNase free (Iyo)

Chemical: *rDNase*

CAS No.: 9003-98-9

##### 6 mL RST5

Chemical: *chemicals/mixture until 1%*

CAS No.: -

##### 10 mL RST1

Chemical: *chemicals/mixture until 2%*

CAS No.: -

##### 7 mL Reaction Buffer for rDNase

Chemical: *chemicals/mixture until 2%*

CAS No.: -

##### 13 mL RST2

Chemical: *1,4-dioxane*

CAS No.: 123-91-1

PNEC (fresh water): 10 mg/L

PNEC = Predicted No Effect Concentration

Bio Toxicity: 1/2.1/2.6

LC50 fish/96h : [21d] 100 mg/L



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10	NucleoSpin RNA Stool (10)	Page: 18/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

EC50 daphnia/48h : 1 g/L  
 IC50 scenedesmus quadricauda/72h : [72h] 1 g/L  
 Partition Coefficient (o/w) : -0,42

### Bead Tubes Type A

Chemical: *Ceramic particles*

CAS No.: -

### 10 mL RST4

Chemical: *guanidinium thiocyanate*

CAS No.: 593-84-0

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

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

### 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

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). Close container tightly.

### 13.1 Waste Treatment Methods

Normally it is possible to empty small amounts (diluted!) into drains. Empty containers of corrosive reagents prior to disposal, rinse with water.

Dispose of contents/container to regulated waste treatment.



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: 740130.10

NucleoSpin RNA Stool (10)

Page: 19/22

Printing Date: 04.04.2023

Date of Issue: 03.03.2023

Version: 2.2.5.11

### SECTION 14: Transport Information

**14.1. UN/NA:** 1992 **14.2. Proper Shipping Name:** Flammable liquid, toxic, n.o.s. (1,4-dioxane, phenol solution)  
**14.3. Hazard Class:** 3 **Sub-Risks:** 6.1 **14.4. Packing Group:** II  
*Transportation by Road*  
 Classification code: FT1  
 Limited Quantity: 1 L Tunnel restriction code: E  
 Excepted Quantity: E 2 Special instructions: 274  
*Air Transportation*  
 Limited Quantity: LQ 0  
 Excepted Quantity: E 2  
 PAX: 352 max. weight PAX: 1 L  
 CAO: 364 max. weight CAO: 60 L  
*Maritime Transport*  
 EmS: F-E, S-D 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 2.2.5.11 and 2.2.2.2 following changes were applied: - 3 composition data corrected - 9 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.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.



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: 740130.10	NucleoSpin RNA Stool (10)	Page: 20/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

### 16.2.2 List of relevant P Phrases

P201	Obtain special instructions before use.
P260sh	Do not breathe dust/vapors.
P280sh	Wear protective gloves/eye protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P303+361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up.

### 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  
 Directive 2004/37/EC on the protection of workers from the risk of carcinogens or mutagens at workSUVA .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  
 TRGS 907, German technical rules for listing substances and causes of sensitization, updated November 2011 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)  
 TRGS 905, German rules of technology for carcinogenic and mutagenic substances, as of March 18, 2016  
 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



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: 740130.10	NucleoSpin RNA Stool (10)	Page: 21/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

CLP:	Classification, Labelling and Packaging regulation
CMR:	carcinogen, mutagen, reproduction toxic
Corr:	corrosive
COD:	chemical oxygen demand
CSDL:	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
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:	fisch, 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:	fisch, fathead minnow
PNEC:	Predicted No Effect 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



# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740130.10	NucleoSpin RNA Stool (10)	Page: 22/22
Printing Date: 04.04.2023	Date of Issue: 03.03.2023	Version: 2.2.5.11

### 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  
 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