# MACHEREY-NAGEI



# **Safety Data Sheet**

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

| REF: 740955.240C          | NucleoSpin RNA (240)      | Page: 1/12 |
|---------------------------|---------------------------|------------|
| Printing date: 12.05.2021 | Date of issue: 04.02.2021 |            |

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

| 1.1 | Product identifier<br>REF<br>Product name  | 740955.240C<br>NucleoSpin RNA (240)   |
|-----|--|---|
|     | REACH Registration number(s):<br>A registration number for the sub-<br>the substance or its use is exclud                                      | see SECTION 3.1/3.2 or<br>stance(s) does not exist because the annual tonnage does not require registration or<br>led from registration.                      |
|     |  | 1 x 30 mL Buffer for rDNase<br>1 x 250 mL MDB<br>1 x 250 mL RA1<br>1 x 100 mL RA3<br>5 x 1000 U rDNase Size F (Iyo)<br>1 x 125 mL RNase-free H <sub>2</sub> O |
| 1.2 | <b>Relevant identified uses</b><br>Product for analytical use.<br>Exposure Scenario Classifi   | e substance or mixture and uses advised against<br>cation according REACh, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0<br>ntegrated into sections 1-16.       |
| 1.3 | Details of the supplier of the s<br>Manufactured by:<br>MACHEREY-NAGEL GmbH & Co.<br>Valencienner Str. 11, 52355 Düren<br>Tel.: +49 2421 969 0 | .KG   |
| 1.4 | Emergency telephone numbe  |   |

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

You find our current versions of SDS (22 languages) in Internet:

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

## **SECTION 2: Hazard identification**

### 2.0 Classification of the complete product



Signal word Hazard identification Hazard classes/categories Flam. Liq. 3 H226 H302 Acute Tox. 4 oral H334 Resp. Sens. 1 H412 Aquatic Chronic 3

DANGER

#### 2.1 Classification of the substance or mixture

30 mL Buffer for rDNase

Do not need labelling as hazardous

Signal word

No hazard class



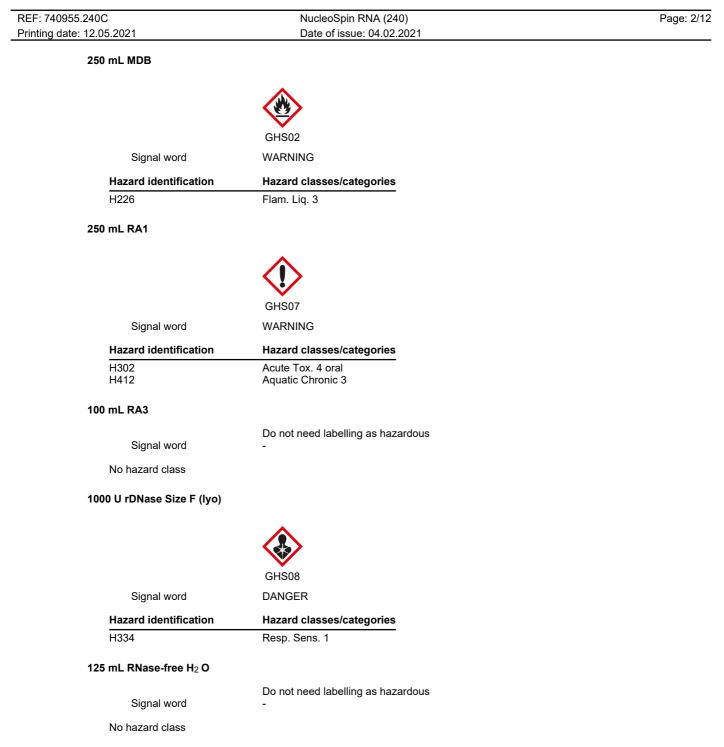
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#### 2.2 Label elements

According CLP directive inner packages must be only labelled with GHS symbol(s) and product identificator(s) (EU 1272/2008 Annex I - 1.5.1.2).

Harmful chemicals/mixtures with signal word: WARNING and highly flammable chemicals/mixtures must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2). This labelling exemption is NOT valid for sensibilizing substances.



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# CHEREY-NAGEL



# Safety Data Sheet

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### 30 mL Buffer for rDNase

Do not need labelling as hazardous Signal word: -

### 250 mL MDB



Signal word: WARNING

H226 Flammable liquid and vapour.

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

### 250 mL RA1



Signal word: WARNING

H302, H412 Harmful if swallowed. Harmful to aquatic life with long lasting effects.

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

### 100 mL RA3

Do not need labelling as hazardous Signal word: -

### 1000 U rDNase Size F (Iyo)



Signal word: DANGER

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

P261sh, P342+311 Avoid breathing dust/vapours. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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

Do not need labelling as hazardous Signal word: -

#### 2.3 Other hazards

Possible hazards from physicochemical properties

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

Information pertaining to particular risks to human and possible symptoms Cause after oral intake, impairments of health when ingested in small quantities.

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

## Information pertaining to particular risks to the environment

Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment. PBT: not applicable vPvB: not applicable

Other hazards

# SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

### 30 mL Buffer for rDNase

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

### 250 mL MDB

| Chemical: guanio    | dinium thiocyanate  |                        | CAS No.: 593-84-0                            |
|---------------------|---|------------------------|--|
| Classification:     | H302, Acute Tox. 4 oral, H312,                                    | Acute Tox. 4 derm., H3 | 314, Skin Corr. 1B, H332, Acute Tox. 4 inh., |
| H412, Aquatic Chror | nic 3   |                        |  |
| Formula:            | C <sub>2</sub> H <sub>6</sub> N <sub>4</sub> S                    |                        |  |
| Pseudonym:          | guanidine rhodanide   |                        |  |
| TSCA Inventory:     | listed  |                        |  |
| REACH Reg. No.:     | 01-2120735072-65-0001   |                        |  |
| EC No.:             | 209-812-1   | Indice No.:            | 615-004-00-3                                 |
| RTECS:              | XL1225000   | MFCD:                  | 00013027                                     |
| KE No.:             | not listed  |                        |  |
| Concentration:      | 5 - <10 %   |                        |  |
| acc. CLP (GHS):     | The criteria for classification are not fulfi                     | lled.                  |  |
| Chemical: ethan     | o/ (diluted < 20 %)   |                        | CAS No.: 64-17-5d                            |
| (dena               | tured with 1%IPA/1%MEK, acc.20                                    | 016/1867/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  |                        |  |
| L RA1               |   |                        |  |
|                     | dinium thiocyanate  |                        | CAS No.: 593-84-0                            |
| Classification:     |   | Acute Tox. 4 derm., H3 | 314, Skin Corr. 1B, H332, Acute Tox. 4 inh., |

| 250 | mL | RA1 |  |
|-----|----|-----|--|
|     |    |     |  |

Corr. 1B, H332, Acute Tox. 4 Inn., H412, Aquatic Chronic 3 Formula:  $C_2 H_6 N_4 S$ Pseudonym: guanidine rhodanide TSCA Inventory: listed REACH Reg. No.: 01-2120735072-65-0001 209-812-1 615-004-00-3 EC No.: Indice No.: RTECS: XL1225000 MFCD: 00013027 KE No .: not listed Concentration: 45 - <60 % acc. CLP (GHS): H302, Acute Tox. 4 oral, H412, Aquatic Chronic 3

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|--|--|--------------------|-----------|
| Printing date: 12.05.2021  | Date of issue: 04.02.2021  |                    |           |
| 100 mL RA3   |  |                    |           |
| Chemical: chem<br>Classification:<br>TSCA Inventory:<br>KE No.:<br>Concentration:<br>acc. CLP (GHS):   | nicals/mixture < 1%<br>No criteria for classification or naming of chemical not required.<br>all listed, <1%<br>listed<br>0.1 - <1 %<br>The criteria for classification are not fulfilled.   | CAS No.: -         |           |
|  |  |                    |           |
| 1000 U rDNase Size F (Iyo)<br>Chemical: rDNa<br>Classification:<br>Formula:<br>Pseudonym:<br>TSCA Inventory:<br>EC No.:<br>RTECS:<br>KE No.:<br>Concentration:<br>acc. CLP (GHS):              |  | CAS No.: 9003-98-9 |           |
| 125 mL RNase-free H <sub>2</sub> O<br>Chemical: wate<br>Classification:<br>Formula:<br>TSCA Inventory:<br>REACH Reg. No.:<br>EC No.:<br>RTECS:<br>KE No.:<br>Concentration:<br>acc. CLP (GHS): | r<br>No criteria for classification or naming of chemical not required.<br>H <sub>2</sub> O<br>listed<br>exempt, Annex IV<br>231-791-2<br>ZC0110000<br>KE-35400<br>90 - <100 %<br>The criteria for classification are not fulfilled. | CAS No.: 7732-18-5 |           |
| .3 Remarks<br>When not listed, mixtures are  | e added with water [CAS No. 7732-18-5] to 100%.  |                    |           |
| List of H and P phrases: see   | section 16.1   |                    |           |
| ECTION 4: First aid measu  | ***  |                    |           |

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice. Take to a doctor, in a raised position if there are breathing difficulties.

### 4.1.1 After SKIN Contact

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

### 4.1.2 After EYE Contact

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

### 4.1.3 After INHALATION of vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. Administer a Dexamethasone spray as soon as possible. Ensure quiet, warmth, and provide resuscitation if necessary. In the event of respiratory distress ensure that the patient inhales oxygen. Secure the breathing, heart and circulatory function. ---

### 4.1.4 After ORAL Intake

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

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

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

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

Inform patient respectively further measures and the possibility of long-term damages. ---



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### 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. The substance/mixture is flammable. Product package burns like paper or plastic. Cool any undamaged containers in water, and remove from the danger zone if possible. Heating will lead to an increase in pressure, and a danger of bursting. Spray any vapours released with water. Retent fire water. Use only acid-resistant safety equipment. For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.

#### 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 procedures

Do not breathe vapours. Wear suitable protective gloves (see 8.2.2). Keep product away from sources of ignition - No smoking. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.

#### 6.2 Environmental precautions

not necessary, contains only small amounts of these substances

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

Bind any escaping liquid with inert absorbent. And dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into drains.

#### 6.4 Reference to other sections

see information in section 5.4 ---

### SECTION 7: Handling and storage

| 7.1         | <b>Precautions for safe handling</b><br>Handling in accordance with the test instruction, that comes with the product. Us   | se only in well-ventilated working areas. |
|-------------|---|---|
| 7.2         | Conditions for safe storage, including any incompatibilitiesThe original product package of MACHEREY-NAGEL allows a safe storage.Storage class (VCI):3Water hazard class (DE):3 |   |
| 7.2.1       | <b>Requirements for stock rooms and containers</b><br>Keep original product packages tightly closed during handling and storage.  |   |
| 7.3         | Specific end use(s) Product for analytical use.   |   |
|             |   |   |
|             | TION 8: Exposure controls/personal protection   |   |
| SEC1<br>8.1 | TION 8: Exposure controls/personal protection<br>Control parameters<br>30 mL Buffer for rDNase<br>Chemical: chemicals/mixture < 2%  | CAS No.: -                                |
|             | Control parameters<br>30 mL Buffer for rDNase   | CAS No.: -<br>CAS No.: 593-84-0           |
|             | Control parameters<br>30 mL Buffer for rDNase<br>Chemical: chemicals/mixture < 2%<br>250 mL MDB<br>Chemical: guanidinium thiocyanate<br>DNEL: [inh] 1092 µg/m <sup>3</sup>      |   |



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|--------------------------|---|---|--|
|                          |   |   |  |
|                          | [TWA] Time-weighte<br>OSHA:   | d average to a reference period of 8 hours, [STEL] Short-term e<br>not listed   | exposure limit related to a 15-minute period   |
|                          | Chemical: ethanol<br>DNEL:  | [dorm] 242 ma/kg: [inh] 050 mg/m <sup>3</sup>   | CAS No.: 64-17-5d  |
|                          | DNEL = Derived No   | [derm] 343 mg/kg; [inh] 950 mg/m <sup>3</sup><br>Effect Level (for workers)<br>0.96 mg/L  |  |
|                          | PNEC <sub>(fresh water)</sub> :<br>PNEC = Predicted N<br>TRGS 900 (DE): | o Effected Concentration<br>200 ppm / 380 mg/m <sup>3</sup>   |  |
|                          | Short-term exposure fa  | E/e respirable<br>stor: 4 (II), Y   |  |
|                          | SUVA(CH) MAK value:<br>NIOSH:   | respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic<br>500 ppm / 960 mg/m <sup>3</sup><br>[TWA] 1000 ppm / 1900 mg/m <sup>3</sup><br>d guarage to a offerance poside d 9 hours. [STEL] Short tom a |  |
|                          | OSHA:   | d average to a reference period of 8 hours, [STEL] Short-term e<br>1000 ppm / 1900 mg/m <sup>3</sup>  | xposure limit related to a 15-minute period  |
|                          | DNEL:   | um thiocyanate<br>[inh] 1092 μg/m³<br>Effect Level (for workers)  | CAS No.: 593-84-0  |
|                          | PNEC <sub>(fresh water</sub> ) :<br>PNEC = Predicted N                  | 42.4 μg/L<br>ο Effected Concentration   |  |
|                          | NIOSH:<br>[TWA] Time-weighte<br>OSHA:                                   | not listed<br>d average to a reference period of 8 hours, [STEL] Short-term e<br>not listed   | exposure limit related to a 15-minute period   |
|                          |   |   |  |
|                          | <b>100 mL RA3</b><br>Chemical: chemical                                 | s/mixture < 1%  | CAS No.: -   |
|                          | <b>1000 U rDNase Size F</b><br>Chemical: <i>rDNase</i>                  | (Iyo)   | CAS No.: 9003-98-9   |
|                          | <b>125 mL RNase-free H</b> 2<br>Chemical: <i>water</i>                  | o   | CAS No.: 7732-18-5   |
| (                        |   | on system in the room, floor resistant to chemicals maintained at the workplace.  | with floor drainage and washing facilities. The highest  |
| .2.1                     | Respiratory protection<br>Use for open access of                        | these substances for example a protection filter, cla   | ass A/AX. No additional recommendations.   |
| .2.2                     |   | N 374 (permeation time >30 min - level 2), consist<br>mes chemical resistant latex gloves with code EN 3  | of PVC, natural latex, Neopren, or Nitril (f.ex. from Anso<br>374-3 level 1.   |
| .2.3                     | <b>Eye protection</b><br>Yes, safety glasses acc                        | ording EN 166 with integrated side shields or wrap-   | -around protection.  |
| 2.4                      | Skin protection<br>Recommended to avoid                                 | contamination with these hazards.   |  |
| 2.5                      | with the skin, eyes and   |   | nd at outdoor workplaces is prohibited. Avoid contact<br>e has been spilled, and soak it in water. Wash hands<br>d then apply protective skin cream. |
| ECTIO                    | N 9: Physical and   | l chemical properties   |  |
| .1                       | nformation on basic   | physical and chemical properties  |  |
|                          |   |   |  |

| 30 IIIL DUITER FOR FDINASE |                    |                |
|----------------------------|--------------------|----------------|
| Appearance: liquid         | Colour: colourless | Odor: odorless |
| pH:                        | 6.5-7.5            |                |
| Specific gravity:          | 1.01 g/cm³         |                |

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20 ml Buffor for rDNaga

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| rinting date: 12.05.2021           | Date of issue: 04.02           | 2.2021          |           |
| 250 mL MDB                         |                                |                 |           |
| Appearance: liquid                 | Colour: colourless             | Odor: alcoholic |           |
| pH:                                | 6.7-7.2<br>55 °C               |                 |           |
| Flash point:<br>Specific gravity:  | 55 C<br>1.01 g/cm <sup>3</sup> |                 |           |
| Specific gravity.                  | 1.01 g/cm                      |                 |           |
| 250 mL RA1                         |                                |                 |           |
| Appearance: liquid                 | Colour: colourless             | Odor: odorless  |           |
| pH:                                | 6.5-7.5                        |                 |           |
| Specific gravity:                  | 1.13 g/cm <sup>3</sup>         |                 |           |
| 100 mL RA3                         |                                |                 |           |
| Appearance: liquid                 | Colour: colourless             | Odor: odorless  |           |
| pH:                                | 7-8                            |                 |           |
| Specific gravity:                  | 1.00 g/cm <sup>3</sup>         |                 |           |
| 1000 U rDNase Size F (Iyo)         |                                |                 |           |
| Appearance: solid (lyoph.)         | Colour: white                  | Odor: odorless  |           |
|                                    |                                |                 |           |
| 125 mL RNase-free H <sub>2</sub> O |                                |                 |           |
| Appearance: liquid                 | Colour: colourless             | Odor: odorless  |           |
| pH:                                | 6-8                            |                 |           |
| Specific gravity:                  | 1.0 g/cm³                      |                 |           |

#### 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 But avoid reactions with oxidizing agents. 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

Not necessary. But can form explosive gases/vapour with air. Use only in a well-ventilated working areas. ---

#### 10.5 Incompatible materials

Avoid contact with strong acids or alkalines. Avoid storage with oxidising substances.

#### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

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

### 30 mL Buffer for rDNase

chemicals/mixture < 2% Chemical: **TSCA** Inventory: all listed, <2% Korea Exist.Chem.Inventory: listed

CAS No.: -



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|---|----------------------------------|---|------------------------------------|
| - many date. 12.00.2021                       | 0                                |   |                                    |
| 250 mL MDB                                    |                                  |   |                                    |
| Chemical:                                     | guanidinium thiocyanate          |   | No.: 593-84-0                      |
| TSCA Inventory:                               | listed                           | California Proposition 65 List: not listed        |                                    |
| Australia NICNAS                              |                                  | Canada CEPA 1999: DSL yes                         |                                    |
| Japan CSCL/PR                                 | •                                | PDSCL: not listed                                 |                                    |
| Japan ISHL:                                   | not listed                       |   |                                    |
| South Korea TCC                               |                                  |   |                                    |
| LD50 <sub>orl rat</sub> :                     | n.Inventory: not listed          |   |                                    |
| LC50 <sub>drm rbt</sub> :                     | 593 mg/kg<br>>2000 mg/m³         |   |                                    |
| LC50 <sub>ihl rat</sub> :                     | [4h] 5.319 mg/L                  |   |                                    |
| LD50 <sub>ipr mus</sub> :                     | 300 mg/kg                        |   |                                    |
| Chamical                                      | athenel                          |   |                                    |
| Chemical:<br>TSCA Inventory:                  | <i>ethanol</i><br>listed         | CAS<br>California Proposition 65 List: not listed | No.: 64-17-5d                      |
| ACGIH:  | 1000 ppm                         | California Proposition 65 List. Not listed        |                                    |
| Exposure Routes                               |                                  | on, skin and/or eye contact                       |                                    |
| Target Organs:                                |                                  | atory system, central nervous system, liver, blo  | od reproductive system             |
| Symptoms:                                     |                                  | n, nose; headache, drowsiness, lassitude (wea     |                                    |
|   | emia; reproductive, teratogenic  |   |                                    |
| Australia NICNAS                              |                                  | Canada CEPA 1999: DSL yes                         |                                    |
| Japan CSCL/PR                                 |                                  |   |                                    |
| Japan ISHL:                                   |                                  | %, Article 57-2 (SDS required)                    |                                    |
| South Korea TCC                               | CA: not listed                   | ,   |                                    |
| Korea Exist.Cher                              | n.Inventory: KE-13217            |   |                                    |
| LD50 <sub>orl rat</sub> :                     | 6200 mg/kg                       |   |                                    |
| LC_Low <sub>ihl gpg</sub> :                   | 21.9 g/m³                        |   |                                    |
| LC_Low <sub>orl hmn</sub> :                   | 1400 mg/kg                       |   |                                    |
| LC50 <sub>ihl mouse</sub> :                   | [4h] 39 g/m³                     |   |                                    |
| 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         |   |                                    |
| 250 mL RA1<br>Chemical:                       | guanidinium thiocyanate          | CAS   | No.: 593-84-0                      |
| TSCA Inventory:                               | listed                           | California Proposition 65 List: not listed        | 10                                 |
| Australia NICNAS                              |                                  | Canada CEPA 1999: DSL yes                         |                                    |
| Japan CSCL/PR                                 |                                  |   |                                    |
| Japan ISHL:                                   | not listed                       |   |                                    |
| South Korea TCC                               |                                  |   |                                    |
|   | n.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                        |   |                                    |
|   | ause after oral intake, impairme | nts of health when ingested in small quantities   | 5.                                 |
| 100 mL RA3                                    |                                  |   |                                    |
| Chemical:                                     | chemicals/mixture < 1%           | CAS   | No.: -                             |
| TSCA Inventory:                               |                                  |   |                                    |
| Korea Exist.Cher                              | n.Inventory: listed              |   |                                    |
| 1000 U rDNase S                               | Size F (lyo)                     |   |                                    |
| Chemical:                                     | rDNase                           | CA6   | No.: 9003-98-9                     |
| TSCA Inventory:                               | listed                           | CAS   | - NO 3003-30-3                     |
| Japan CSCL/PR                                 |                                  |   |                                    |
| Japan ISHL:                                   | not listed                       |   |                                    |
|   | n.Inventory: KE-09612            |   |                                    |
|   |                                  | n when ingested in small quantities.              |                                    |
|   |                                  | n contact, also in repeated contact of small am   | ounts. May cause allergy or asthma |
|   | athing difficulties if inhaled.  | ·   |                                    |
|   |                                  |   | www.mn-ne                          |
|   | Co. KO. Normona Mara             |   | vv vv vv                           |
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|----------|--|--|--------------------|-------------|
| Printing | g date: 12.05.2021   | Date of issue: 04.02.2021  |                    |             |
|          | <b>125 mL RNase-free H</b> <sub>2</sub> <b>O</b><br>Chemical: water<br>TSCA Inventory: listed<br>Korea Exist.Chem.Inventory: KE-354  | 100  | CAS No.: 7732-18-5 |             |
|          | ION 12: Ecological informat  | ion  |                    |             |
| 2.1      | Toxicity   |  |                    |             |
|          | Following information is valid for pure  | substances.  |                    |             |
|          | <b>30 mL Buffer for rDNase</b><br>Chemical: chemicals,<br>Water hazard class (DE):<br>Storage class (VCI):   | /mixture < 2%<br>1<br>12-13  | CAS No.: -         |             |
|          | 250 mL MDB<br>Chemical: guanidiniu<br>PNEC(fresh water) :<br>PNEC = Predicted No Effected Concent  | <i>m thiocyanate</i><br>42.4 μg/L<br><sup>ration</sup>   | CAS No.: 593-84-0  |             |
|          | LC50 <sub>fish/96h</sub> :<br>EC50 <sub>daphnia/48h</sub> :<br>IC50 <sub>scenedesmus quadricauda/72h</sub> :<br>EC10 <sub>pseudomonas putita/16h</sub> :<br>Water hazard class (DE):<br>Dispersion coefficient(octanol-water<br>Starsge class (/CI):   |  |                    |             |
|          | Storage class (VCI):<br>Chemical: <i>ethanol</i><br>PNEC(fresh water) :<br>PNEC = Predicted No Effected Concent  | 12<br>0.96 mg/L<br>ration  | CAS No.: 64-17-5d  |             |
|          | LC50daphnia magna/48h :<br>LC50pimephales promelas/96h :<br>LC50leuciscus idus/96h :<br>LC50fish/96h :<br>EC50daphnia/48h :<br>IC50scenedesmus quadricauda/72h :<br>EC10pseudomonas putita/16h :<br>Water hazard class (DE):<br>Dispersion coefficient(octanol-water<br>Storage class (VCI): | >100 g/L<br>13.4-15.1 g/L<br>[48h] 8.14 g/L<br>13 g/L<br>9.3-14.2 g/L<br>[7d] 5000 mg/L<br>[EC5] 6500 mg/L<br>1 WGK No.: 0096<br>ar): -0.31<br>3 |                    |             |
|          | Harmful to aquatic life with long  | <i>m thiocyanate</i><br>lasting effects. Avoid contact of substance/r<br>t be labelled with P phrases until 125 mL (E<br>42.4 μg/L<br>ration     |                    |             |
|          | LC50fish/96h :<br>EC50daphnia/48h :<br>IC50 <sub>s</sub> cenedesmus quadricauda/72h :<br>EC10 <sub>pseudomonas putita/16h :</sub><br>Water hazard class (DE):<br>Dispersion coefficient <sub>(octanol-wate</sub><br>Storage class (VCI):   | [4d] 89.1 mg/L<br>42.4 mg/L<br>130 mg/L<br>[10d] 200 mg/L<br>3   |                    |             |
|          | <b>100 mL RA3</b><br>Chemical: chemicals<br>Water hazard class (DE):<br>Storage class (VCI):   | /mixture < 1%<br>1<br>12-13  | CAS No.: -         |             |
|          | <b>1000 U rDNase Size F (Iyo)</b><br>Chemical: <i>rDNase</i><br>Water hazard class (DE):<br>Storage class (VCI):   | 1 WGK No.: n.n.<br>13  | CAS No.: 9003-98-9 |             |
|          |  |  |                    | www.mn-net  |



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|---------------------------|---|---------------------------|--------------------|
| Printing date: 12.05.2021 |   | Date of issue: 04.02.2021 |                    |
|                           | 125 mL RNase-free H <sub>2</sub> O<br>Chemical: water |                           | CAS No.: 7732-18-5 |
| 12.2                      | Persistence and degradability<br>not necessary        |                           |                    |
| 12.3                      | Bioaccumulative potential<br>not necessary            |                           |                    |
| 12.4                      | Mobility in soil<br>not necessary                     |                           |                    |
| 12.5                      | Results of PBT and vPvB asse<br>no data available     | ssment                    |                    |
| 12.6                      | Other adverse effects<br>no additional data available |                           |                    |
| SECT                      | ION 13: Disposal considera                            | ations                    |                    |
| D                         | o 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, contains only small amounts of these 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 Look for your country-specific regulations.

### 15.2 Chemical safety assessment

not necessary for these small amounts ----

## SECTION 16: Other information

### List of H and P phrases 16.1

#### 16.1.1 List of relevant H phrases Flammable liquid and vapour. H226 H302 Harmful if swallowed. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H412 Harmful to aquatic life with long lasting effects. 16.1.2 List of relevant P phrases P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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|          | P261sh<br>P264W<br>P273<br>P301+312<br>P304+340<br>P330<br>P342+311  | Avoid breathing dust/vapours.<br>Wash with water thoroughly after handling.<br>Avoid release to the environment.<br>IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.<br>IF INHALED: Remove person to fresh air and keep comfortable for breathing.<br>Rinse mouth.<br>If experiencing respiratory symptoms: Call a POISON CENTER/doctor.   |  |
| 16.2     | Training advice<br>Multiple safety trainin<br>staffs for using these   | ng of staffs about danger and protection by using hazards in working area. Additionally tra   | ining and introduction of  |
| 16.3     | Recommended  | restriction on use  |  |
|          | Look about employee  | user.<br>e restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!<br>e restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or for DE §§ 11-1<br>e of this product or test kit has a moderate hazardous potential.  | 3 MuSchG 2017)!  |
| 16.4     | Further informa  | tion  |  |
|          | revision time. This do<br>person using this pro<br>appropriateness for a<br>MACHEREY-NAGEL<br>without limitation any<br>product to which the   | GmbH & Co. KG provides the information contained herein in good faith being up-to-dat<br>ocument is intended only as a guide to the appropriate precautionary handling of the mate<br>duct. Individuals receiving the information must exercise their independent judgement in<br>a particular purpose.<br>GmbH & Co. KG makes NO REPRESENTATIONS or WARRANTIES, either expressed<br>warranties of merchantability, fitness for a particular purpose with respect to the information<br>information refers. Accordingly MACHEREY-NAGEL GmbH & Co. KG will not be response<br>upon this information. See terms and conditions at the end of our price lists for addition | erial by a properly trained<br>determining its<br>or implied, including<br>tion set forth herein or the<br>sible for damages resulting |
| 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         Regulation 1480/2018/EU, 4 <sup>th</sup> adaptation of CLP regulation to technical and scientific progress         Regulation 1480/2018/EU, 4 <sup>th</sup> adaptation of CLP regulation to technical and scientific progress         TRGS 900, German engineering rules governing limits in air at work, updated 03/2019         SUVA .CH, Limits in air at work 2009, revised on 01.2009         TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011         Directive 1999/92/EC Minimum requirements for improving the safety and health protection of workers at risk from potentially explosive atmospheres         KÜHN, BIRETT       Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances) |   |  |
|          | <b>Revisions/Updates</b>   |   |  |
|          |  | 2016-03 Adaptation of regulation 1221/2015/EU   |  |

2017-11 Adaption of ECHA Registration dossier

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