

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

REF: 740956.10 NucleoSpin RNA Virus (10) Page: 1/12

Printing date: 12.05.2021 Date of issue: 17.02.2021

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

1.1 **Product identifier**

REF 740956.10

Product name NucleoSpin RNA Virus (10)

REACH Registration number(s): see SECTION 3.1/3.2 or
A registration number for the substance(s) does not exist because the annual tonnage does not require registration or

the substance or its use is excluded from registration.

1 x 0.09-1.0 mg Carrier RNA

1 x 10 mL RAV1 1 x 6 mL RAV3 1 x 6 mL RAW 1 x 13 mL RE

1 x 13 mL H₂ O (RNase free)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACh, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0

The exposure scenario is integrated into sections 1-16.

Uses advised against

not described

1.3 Details of the supplier of the safety data sheet

Manufactured by:

MACHEREY-NAGEL GmbH & Co. KG Valencienner Str. 11, 52355 Düren, GERMANY

Tel.: +49 2421 969 0 E-mail: sds@mn-net.com (msds@mn-net.com)

1.4 **Emergency telephone number**

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

You find our current versions of SDS (22 languages) in Internet: http://www.mn-net.com/SDS

SECTION 2: Hazard identification

2.0 Classification of the complete product





GHS02

GHS07

Signal word WARNING

Hazard identification Hazard classes/categories

Flam. Liq. 3 H226 H302 Acute Tox. 4 oral H412 Aquatic Chronic 3

2.1 Classification of the substance or mixture

0.09-1.0 mg Carrier RNA

Do not need labelling as hazardous

Signal word

No hazard class

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10 mL RAV1

Signal word WARNING

Hazard identification Hazard classes/categories

H302 Acute Tox. 4 oral H412 Aquatic Chronic 3

6 mL RAV3

Do not need labelling as hazardous

Signal word

No hazard class

6 mL RAW



Signal word WARNING

Hazard identification Hazard classes/categories

H226 Flam. Liq. 3 H302 Acute Tox. 4 oral

13 mL RE

Do not need labelling as hazardous

Signal word

No hazard class

13 mL H₂ O (RNase free)

Do not need labelling as hazardous

Signal word

No hazard class

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).

0.09-1.0 mg Carrier RNA

Do not need labelling as hazardous Signal word: -

10 mL RAV1

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Signal word: WARNING

Harmful to aquatic life with long lasting effects.

6 mL RAV3

Do not need labelling as hazardous Signal word: -

6 mL RAW





Signal word: WARNING

13 mL RE

Do not need labelling as hazardous Signal word: -

13 mL H₂ O (RNase free)

Do not need labelling as hazardous Signal word: -

2.3 Other hazards

Possible hazards from physicochemical properties

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

Information pertaining to particular risks to human and possible symptoms

Cause after oral intake, impairments of health when ingested in small quantities. -

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**

0.09-1.0 mg Carrier RNA

Chemical: carrier RNA CAS No.: 26763-19-6

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

TSCA Inventory: listed (CAS 9001-99-4)

00131937 RTECS: MECD:

KE No.: KE-30341 Concentration: 90 - <100 %

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

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10 mL RAV1

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

Classification: H302, Acúte Tox. 4 oral, H312, Acute Tox. 4 derm., H314, Skin Corr. 1B, H332, Acute Tox. 4 inh.,

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

EC No.: 209-812-1 Indice No.: 615-004-00-3 RTECS: XL1225000 MFCD: 00013027

KE No.: not listed Concentration: 45 - <60 %

acc. CLP (GHS): H302, Acute Tox. 4 oral, H412, Aquatic Chronic 3

Chemical: *Triton® X-100* CAS No.: 9002-93-1

Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H318, Eye Dam. 1, H410, Aquatic Chronic 1

Formula: C₃₃ H₆₀ O_{10,5}
Pseudonym: octoxynol-9
TSCA Inventory: listed

SVHC listed: listed

RTECS: MD0907700 MFCD: 00132505

KE No.: KE-33568 Concentration: 0.25 - <2.5 %

acc. CLP (GHS): H412, Aquatic Chronic 3

6 mL RAV3

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

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

TSCA Inventory: all listed, <1% KE No.: listed
Concentration: 0.1 - <1 %

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

6 mL RAW

Chemical: guanidine hydrochloride CAS No.: 50-01-1

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

Formula: CH₆ CIN₃

Pseudonym: guanidinium chloride

TSCA Inventory: listed

REACH Reg. No.: 01-2119977063-35-0005

EC No.: 200-002-3 Indice No.: 607-148-00-0 RTECS: MF4300000 MFCD: 00013026

KE No.: KE-18111 Concentration: 24 - <36 %

acc. CLP (GHS): H302, Acute Tox. 4 oral

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

(denatured with 1%IPA/1%MEK, acc.2016/1867/EU)

Classification: H225, Flam. Liq. 2 Formula: $C_2 H_6 O; C_2 H_5 OH$

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: 35 - <55 % acc. CLP (GHS): H226, Flam. Liq. 3

13 mL RE

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

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

TSCA Inventory: all listed, <1% listed
Concentration: 0.1 - <1 %

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

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CAS No.: 7732-18-5

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13 mL H₂ O (RNase free)

Chemical:

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

Formula: H_2O TSCA Inventory: listed

exempt, Annex IV 231-791-2 REACH Reg. No.: FC No : RTECS: ZC0110000 KE No.: KE-35400 Concentration: 90 - <100 %

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

3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%.

List of H and P phrases: see section 16.1

SECTION 4: First aid measures

4.1 Description of first aid measures

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

4.1.1 After SKIN Contact

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

4.1.2 After EYE Contact

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

4.1.3 After INHALATION of vapours

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

4.1.4

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

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

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

Additional information 5.4

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures 6.1

Do not breathe vapours. Regular staff training is necessary.

6.2 **Environmental precautions**

not necessary, contains only small amounts of these substances

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6.3 Methods and material for containment and cleaning up

Bind any escaping liquid with inert absorbent.

Collect small amounts of leaked liquid and flush with water into drains.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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

7.2 Conditions for safe storage, including any incompatibilities

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

Storage class (VCI): Water hazard class (DE):

7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

7.3 Specific end use(s)

Product for analytical use.

SECTION 8: Exposure controls/personal protection

8.1 **Control parameters**

0.09-1.0 mg Carrier RNA

carrier RNA CAS No : 26763-19-6 Chemical:

10 mL RAV1

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

DNEL: [inh] 1092 µg/m³ DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): 42.4 µg/L PNEC = Predicted No Effected Concentration

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: Triton® X-100 CAS No.: 9002-93-1

6 mL RAV3

chemicals/mixture < 1% CAS No · -Chemical:

6 mL RAW

CAS No.: 50-01-1 Chemical: guanidine hydrochloride

DNEL [inh] 3.5 mg/m³ DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water) PNEC = Predicted No Effected Concentration

not listed NIOSH:

[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: CAS No.: 64-17-5

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

PNEC (fresh water): 0.96 mg/L PNEC = Predicted No Effected Concentration

200 mL/m3 / 380 mg/m3 TRGS 900 (DE):

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

500 ppm / 960 mg/m³ SUVA(CH) MAK value:

[TWA] 1000 ppm / 1900 mg/m³ NIOSH:

[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

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> OSHA: [TWA] 1000 ppm / 1900 mg/m³

13 mL RE

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

13 mL H₂ O (RNase free)

Chemical: CAS No.: 7732-18-5

8.2 **Exposure controls**

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

8.2.1 Respiratory protection

No additional recommendations.

8.2.2 Hand protection

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

8.2.3

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

8.2.4 Skin protection

Recommended.

8.2.5 Personal hygiene

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

0.09-1.0 mg Carrier RNA

Appearance: solid (lyoph.) Colour: colourless Odor: odorless

10 mL RAV1

Colour: colourless Odor: odorless Appearance: liquid

pH: 7.0-7.5

Specific gravity: 1.12 g/cm³

6 mL RAV3

Appearance: liquid Colour: colourless Odor: odorless

Specific gravity: 1.00 g/cm³

6 mL RAW

Odor: alcoholic Appearance: liquid Colour colourless

pH: 5-5.5 23 °C Flash point: Specific gravity: 0.98 g/cm³

13 mL RE

Appearance: liquid Colour: colourless Odor: odorless

8-9 pH: 1.0 g/cm³ Specific gravity:

13 mL H₂ O (RNase free)

Colour: colourless Odor: odorless Appearance: liquid

pH: Specific gravity: 1.0 g/cm³

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9.2 Other information

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required. Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

no further data available.

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

Note: Can form very reactive substances with oxidizing agents. Possible: Contact with acids liberates toxic gas. No further data

10.4 Conditions to avoid

Not necessary. ---

10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

0.09-1.0 mg Carrier RNA

Chemical: carrier RNA CAS No.: 26763-19-6

listed (CAS 9001-99-4) TSCA Inventory

Japan CSCL/PRTR: not listed, Japan PDSCL: not listed

Japan ISHL: not listed Korea Exist.Chem.Inventory: KE-30341

10 mL RAV1

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

TSCA Inventory: listed California Proposition 65 List: not listed not listed Australia NICNAS: Canada CEPA 1999: DSL yes

Japan CSCL/PRTR: not listed, Japan PDSCL: not listed

Japan ISHL: not listed South Korea TCCA: not listed Korea Exist.Chem.Inventory: not listed LD50_{orl rat}: 593 mg/kg LC50_{drm rbt}: >2000 mg/m³ LC50_{ihl rat}: [4h] 5.319 mg/L LD50_{ipr_mus}: 300 mg/kg

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

CAS No.: 9002-93-1 Triton® X-100

TSCA Inventory: listed Korea Exist.Chem.Inventory: KE-33568 LD50_{orl rat}: 707-1800 mg/kg LD50_{drm rbt}: 3000-12300 mg/kg

6 mL RAV3

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

TSCA Inventory: all listed. <1% Korea Exist.Chem.Inventory: listed

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6 mL RAW

Chemical: guanidine hydrochloride CAS No.: 50-01-1

TSCA Inventory: listed California Proposition 65 List: not listed not listed Canada CEPA 1999: DSL yes Australia NICNAS:

Japan CSCL/PRTR: not listed, Japan PDSCL: not listed

Japan ISHL: not listed South Korea TCCA: not listed Korea Exist.Chem.Inventory: KE-18111 LD50_{orl rat}: 475-907 mg/kg [4h] 3181-7655 µg/m³ LC50_{ihl rat}: LD50_{drm rbt}: 2000 mg/kg

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

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

TSCA Inventory: California Proposition 65 List: not listed listed

ACGIH: 1000 ppm

Exposure Routes: inhalation, ingestion, skin and/or eye contact

Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system

Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough;

liver damage; anemia; reproductive, teratogenic

Australia NICNAS: not listed Canada CEPA 1999: DSL yes

not listed, Japan PDSCL: not listed Japan CSCL/PRTR:

Japan ISHL: listed ≥0,1%/≥0,1%, Article 57-2 (SDS required)

South Korea TCCA: not listed Korea Exist.Chem.Inventory: KE-13217 LD50_{orl rat}: 6200 mg/kg LC_LowinI gpg: 21.9 g/m³ 1400 mg/kg LC Loworl hmn: $LC\overline{5}0_{ihl\;mouse}$: [4h] 39 g/m³ [10h] 20 g/m³ LC50_{ihl rat}: LD50_{drm rbt}: 20 000 mg/kg LD50_{oral mouse}: 3450 mg/kg

TRGS 905 (DE): K5, M5, R_F C

13 mL RE

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

TSCA Inventory: all listed, <1%

Korea Exist.Chem.Inventory: listed

13 mL H₂ O (RNase free)

Chemical: CAS No.: 7732-18-5

TSCA Inventory: listed

Korea Exist.Chem.Inventory: KE-35400

SECTION 12: Ecological information

12.1 **Toxicity**

Following information is valid for pure substances.

0.09-1.0 mg Carrier RNA

Chemical: carrier RNA CAS No.: 26763-19-6

10 mL RAV1

guanidinium thiocyanate CAS No.: 593-84-0

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

42.4 µg/L

PNEC(fresh water):
PNEC = Predicted No Effected Concentration

LC50_{fish/96h}: [4d] 89.1 mg/L EC50_{daphnia/48h}: 42.4 mg/L 130 mg/L IC50_{scenedesmus} quadricauda/72h [10d] 200 mg/L EC10_{pseudomonas putita/16h}:

Water hazard class (DE):

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> Dispersion coefficient(octanol-water): [pH 5.1] -1.11

Storage class (VCI):

Triton® X-100 CAS No.: 9002-93-1

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

Water hazard class (DE): WGK No.: n.n. 1

Storage class (VCI):

6 mL RAV3

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

Water hazard class (DE): Storage class (VCI): 12-13

6 mL RAW

guanidine hydrochloride CAS No.: 50-01-1 Chemical:

PNEC_(fresh water): PNEC = Predicted No Effected Concentration

LC50leuciscus idus/96h: 1759 mg/L

LC50_{fish/96h}: [4d] 690-1850; [48h] 1758-2420 mg/L

EC50_{daphnia/48h}: 70.2 mg/L

[72h] 11.8-33.5 mg/L EC10_{pseudomonas putita/16h}: Water hazard class (DE): WGK No.: 0788

Storage class (VCI): 12

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

PNEC(fresh water):
PNEC = Predicted No Effected Concentration 0.96 mg/L

LC50_{daphnia magna/48h}: >100 mg/L

LC50_{pimephales} promelas/96h: 13400 - 15100 mg/L [48h] 8140 mg/L LC50 leuciscus idus/96h :

 $LC50_{fish/96h}$: 13 g/L 9.3-14.2 g/L EC50_{daphnia/48h}: [7d] 5000 mg/L IC50_{scenedesmus} quadricauda/72h: EC10_{pseudomonas putita/16h}: [EC5] 6500 mg/L Water hazard class (DE): WGK No.: 0096

Dispersion coefficient(octanol-water): -0.31Storage class (VCI):

13 ml RF

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

Water hazard class (DE): Storage class (VCI): 12-13

13 mL H₂ O (RNase free)

CAS No.: 7732-18-5 Chemical:

12.2 Persistence and degradability

not necessary

12.3 Bioaccumulative potential

not necessary

12.4 Mobility in soil

not necessary

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no additional data available

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

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SECTION 13: Disposal considerations

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

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

13.1 Waste treatment methods

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

SECTION 14: Transport information

UN 1993 class 3 III, Excepted Quantities (≤30 mL/∑≤1 L) = ADR/ IATA E1

14.1 UN number:

umber: 1993 14.2 UN proper shipping name: Flammable liquid, n.o.s. (ethanol mixture)

14.3 Class: 3 14.4 Packing group: I

Road transport

Classification code: F1

Limited Quantity: 5 I Tunnel restriction code: Ε 640F **Excepted Quantity:** F 1 Special instructions: Air transport PAX: 355 max. weight PAX: 60 L CAO 366 max. weight CAO: 220 L

Maritime transport

EmS: F-E, S-E Storage category: A

14.5 Environmental hazards

none, contains only small quantities of hazardous substances, 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

16.1 List of H and P phrases

16.1.1 List of relevant H phrases

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

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.

P264W Wash with water thoroughly after handling.

P273 Avoid release to the environment.

P301+312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

16.2 Training advice

Multiple safety training of staffs about danger and protection by using hazards in working area.

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16.3 Recommended restriction on use

Only for professional user.

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

16.4 Further information

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

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16.5 Sources of key data

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

Regulation 487/2013/EU, 4^{th} adaptation of CLP regulation to technical and scientific progress Regulation 669/2018/EU, 4^{th} adaptation of CLP regulation to technical and scientific progress Regulation 1480/2018/EU, 4^{th} adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated 03/2019 SUVA .CH, Limits in air at work 2009, revised on 01.2009

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU

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

2017-11 Adaption of ECHA Registration dossier

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