

Safety Data Sheet

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

REF: 740663.4

NucleoSpin 96 Plant II (4x96)

Page: 1/15

Printing date: 15.11.2021

Date of issue: 29.10.2020

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

1.1 Product identifier

REF 740663.4
Product name NucleoSpin 96 Plant II (4x96)

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 250 mL PC
1 x 125 mL PE
1 x 250 mL PL1
1 x 200 mL PL2
1 x 50 mL PL3
2 x 100 mL PW1
2 x 100 mL PW2
2 x 0.6-100 mg RNase A (lyo)

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
Valenciennr 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

GHS08

Signal word

DANGER

Hazard identification

Hazard classes/categories

H226
H302
H319
H334
H336, H335

Flam. Liq. 3
Acute Tox. 4 oral
Eye Irrit. 2
Resp. Sens. 1
STOT SE 3

2.1 Classification of the substance or mixture

250 mL PC

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GHS02

GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

H302

Acute Tox. 4 oral

125 mL PE

Signal word

Do not need labelling as hazardous

No hazard class

-

250 mL PL1

Signal word

Do not need labelling as hazardous

No hazard class

-

200 mL PL2

Signal word

Do not need labelling as hazardous

No hazard class

-

50 mL PL3

Signal word

Do not need labelling as hazardous

No hazard class

-

100 mL PW1



GHS02

GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

H302

Acute Tox. 4 oral

H319

Eye Irrit. 2

H336, H335

STOT SE 3

100 mL PW2

Signal word

Do not need labelling as hazardous

No hazard class

-

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0.6-100 mg RNase A (lyo)



GHS08

Signal word

DANGER

Hazard identification

Hazard classes/categories

H334

Resp. Sens. 1

2.2 Label elements

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

Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2). This labelling exemption is NOT valid for sensilizing substances. The irritant hazard should be eliminated, because of buffer chemicals inside.

250 mL PC



GHS02



GHS07

Signal word: WARNING

H226, H302

Flammable liquid and vapour. Harmful if swallowed.

P210, P264W, P301+312, P330

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wash with water thoroughly after handling. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

125 mL PE

Do not need labelling as hazardous

Signal word: -

250 mL PL1

Do not need labelling as hazardous

Signal word: -

200 mL PL2

Do not need labelling as hazardous

Signal word: -

50 mL PL3

Do not need labelling as hazardous

Signal word: -

100 mL PW1



GHS02



GHS07

Signal word: WARNING

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100 mL PW2

Do not need labelling as hazardous
Signal word: -

0.6-100 mg RNase A (Iyo)



GHS08

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.

2.3 Other hazards

Possible hazards from physicochemical properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. Vapour forms explosive mixtures with air. ---

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

PBT: not applicable

vPvB: not applicable

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

250 mL PC

Chemical:	<i>guanidine hydrochloride</i>	CAS No.:	50-01-1
Classification:	H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2		
Formula:	CH ₆ ClN ₃		
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:	<i>ethanol</i> (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)	CAS No.:	64-17-5
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		

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125 mL PE

Chemical: *chemicals/mixture < 1%*
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.

CAS No.: -

250 mL PL1

Chemical: *sodium chloride*
Classification: No criteria for classification or naming of chemical not required.
Formula: NaCl
Pseudonym: salt
TSCA Inventory: listed
REACH Reg. No.: exempt, Annex V
EC No.: 231-598-3
RTECS: VZ4725000
KE No.: KE-31387
Concentration: 5 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 7647-14-5

200 mL PL2

Chemical: *dodecyl sulfate, sodium salt*
Classification: H228, Flam. Sol. 1, H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H318, Eye Dam. 1, H332, Acute Tox. 4 inh., H335, STOT SE 3, H412, Aquatic Chronic 3
Formula: C₁₂ H₂₅ NaO₄ S
Pseudonym: sodium lauryl sulfate, sulfuric acid monododecyl ester sodium salt
TSCA Inventory: listed
REACH Reg. No.: 01-2119489461-32-xxxx
EC No.: 205-788-1
RTECS: WT1050000
KE No.: KE-21884
Concentration: 1 - <2.5 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 151-21-3

MFCD: 00036175

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

CAS No.: 7647-14-5

Chemical: *chemicals/mixture < 2%*
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.

CAS No.: -

50 mL PL3

Chemical: *acetate buffer solution*
Classification: No criteria for classification or naming of chemical not required.
Formula: CH₃ COOH/K/Na•H₂ O
TSCA Inventory: all listed
KE No.: listed
Concentration: 45 - <60 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: -

100 mL PW1

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Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: CH_6ClN_3
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: 36 - <50 %
acc. CLP (GHS): H302, Acute Tox. 4 oral, H319, Eye Irrit. 2

Chemical: *2-propanol* CAS No.: 67-63-0
Classification: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3
Formula: $\text{C}_3\text{H}_8\text{O}$
Pseudonym: isopropanol, IPA, propan-2-ol
TSCA Inventory: listed
REACH Reg. No.: 01-2119457558-25-XXXX
EC No.: 200-661-7 Indice No.: 603-117-00-0
RTECS: NT8050000 MFCD: 00011674
KE No.: KE-29363
Concentration: 20 - <35 %
acc. CLP (GHS): H226, Flam. Liq. 3, H319, Eye Irrit. 2, H336, STOT SE 3

100 mL PW2

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.

0.6-100 mg RNase A (lyo)

Chemical: *RNase* CAS No.: 9001-99-4
Classification: H334, Resp. Sens. 1
Formula: Enzyme Comm. No. 3.1.27.5, origin: bovine pancreas (controlled population)
Pseudonym: Nuclease, ribo-
TSCA Inventory: listed
EC No.: 232-646-6
RTECS: RF0760000
KE No.: KE-30341
Concentration: 90 - <100 %
acc. CLP (GHS): H334, Resp. Sens. 1

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. 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. ---

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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. ---

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

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 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 of MACHEREY-NAGEL allows a safe storage.

Storage class (VCI): 3

Water hazard class (DE): 2

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.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

250 mL PC

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

DNEL: [inh] 3.5 mg/m³

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/m³

DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 0.96 mg/L

PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 mL/m³ / 380 mg/m³

E/e respirable

Short-term exposure factor: 4 (II), Y

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

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

NIOSH: [TWA] 1000 ppm / 1900 mg/m³

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

OSHA: [TWA] 1000 ppm / 1900 mg/m³

125 mL PE

Chemical: *chemicals/mixture < 1%*

CAS No.: -

250 mL PL1

Chemical: *sodium chloride*

CAS No.: 7647-14-5

200 mL PL2

Chemical: *dodecyl sulfate, sodium salt*

CAS No.: 151-21-3

NIOSH: not listed

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

OSHA: not listed

Chemical: *sodium chloride*

CAS No.: 7647-14-5

Chemical: *chemicals/mixture < 2%*

CAS No.: -

50 mL PL3

Chemical: *acetate buffer solution*

CAS No.: -

100 mL PW1

Chemical: *guanidine hydrochloride*

CAS No.: 50-01-1

DNEL: [inh] 3.5 mg/m³

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: *2-propanol*

CAS No.: 67-63-0

DNEL: [inh] 500 mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 140.9 mg/L

PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 ppm / 500 mg/m³

E/e respirable

Short-term exposure factor: 2 (II), Y

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 200 ppm / 500 mg/m³

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TRGS 903 (DE): [Aceton B/b, U/b] 25 mg/L
B blood, U urine, a no limitation, b end of exposition or shift

NIOSH: [TWA] 400 ppm / 980 mg/m³
NIOSH STEL: 500 ppm / 1225 mg/m³
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [TWA] 400 ppm / 980 mg/m³

100 mL PW2

Chemical: chemicals/mixture < 1%

CAS No.: -

0.6-100 mg RNase A (lyo)

Chemical: RNase

CAS No.: 9001-99-4

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 protection filter, class A/AX. No additional recommendations.

8.2.2 Hand protection

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

8.2.3 Eye protection

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

8.2.4 Skin protection

Recommended to avoid contamination with these hazards.

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

250 mL PC

Appearance: liquid

Colour: yellow

Odor: alcoholic

pH:

5-7

Flash point:

23 °C

Specific gravity:

1.01 g/cm³

125 mL PE

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

8-9

Specific gravity:

1.0 g/cm³

250 mL PL1

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7.5-8.5

Specific gravity:

1.06 g/cm³

200 mL PL2

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7.5-8.5

Specific gravity:

1.03 g/cm³

50 mL PL3

Appearance: liquid

Colour: colourless

Odor: acetic

pH:

5-6

Specific gravity:

1.19 g/cm³

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100 mL PW1

Appearance: liquid

pH:

Flash point:

Specific gravity:

Colour: colourless

7-8

25 °C

1.06 g/cm³

Odor: alcoholic

100 mL PW2

Appearance: liquid

pH:

Specific gravity:

Colour: colourless

7-8

1.00 g/cm³

Odor: odorless

0.6-100 mg RNase A (lyo)

Appearance: solid (lyoph.)

Solubility in water:

Colour: colourless

0-100 %

Odor: odorless

9.2 Other information

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

Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

no further data available.

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

But avoid reactions with oxidizing agents. Note: Can form very reactive substances with oxidizing agents. 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.

250 mL PC

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

TSCA Inventory: listed California Proposition 65 List: not listed

Australia NICNAS: not listed Canada CEPA 1999: DSL yes

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

Japan ISHL: not listed

South Korea TCCA: not listed

Korea Exist.Chem.Inventory: KE-18111

LD50_{oral rat}: 475-907 mg/kg

LC50_{ihl rat}: [4h] 3181-7655 µg/m³

LD50_{derm rbt}: 2000 mg/kg

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 Proposition 65 List: not listed

ACGIH: 1000 ppm

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

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

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

liver damage; anemia; reproductive, teratogenic

Australia NICNAS: not listed

Canada CEPA 1999: DSL yes

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Japan CSCL/PRTR: not listed, Japan PDSC: not listed
 Japan ISHL: listed $\geq 0,1\%$ / $\geq 0,1\%$, Article 57-2 (SDS required)
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: KE-13217
 LD50_{oral rat}: 6200 mg/kg
 LC_{Low}W_{ihl} gpg: 21.9 g/m³
 LC_{Low}W_{ihl} hmn: 1400 mg/kg
 LC50_{ihl} mouse: [4h] 39 g/m³
 LC50_{ihl} rat: [10h] 20 g/m³
 LD50_{drm} rbt: 20 000 mg/kg
 LD50_{oral} mouse: 3450 mg/kg
 TRGS 905 (DE): K5, M5, R_F C

125 mL PE

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

250 mL PL1

Chemical: *sodium chloride* CAS No.: 7647-14-5
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-31387
 LD50_{oral rat}: 3000 mg/kg
 LD50_{drm} rbt: 10 g/kg

200 mL PL2

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3
 TSCA Inventory: listed California Proposition 65 List: not listed
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes
 Japan CSCL/PRTR: PRTR - Class I Designated Chemical Substance, Japan PDSC: not listed
 Japan ISHL: not listed
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: KE-21884
 LD50_{oral rat}: 1288 mg/kg
 LC50_{inh} rat: 3900_{1h} mg/m³
 LD50_{drm} rbt: 10 g/kg

Chemical: *sodium chloride* CAS No.: 7647-14-5
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-31387
 LD50_{oral rat}: 3000 mg/kg
 LD50_{drm} rbt: 10 g/kg

Chemical: *chemicals/mixture < 2%* CAS No.: -
 TSCA Inventory: all listed, <2%
 Korea Exist.Chem.Inventory: listed

50 mL PL3

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

100 mL PW1

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
 TSCA Inventory: listed California Proposition 65 List: not listed
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes
 Japan CSCL/PRTR: not listed, Japan PDSC: not listed

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Japan ISHL: not listed
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: KE-18111
 LD50_{orl rat}: 475-907 mg/kg
 LC50_{ihl rat}: [4h] 3181-7655 µg/m³
 LD50_{drm rbt}: 2000 mg/kg
 Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

Chemical: 2-propanol CAS No.: 67-63-0
 TSCA Inventory: listed California Proposition 65 List: not listed
 ACGIH: 1230 ppm
 Exposure Routes: inhalation, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system
 Symptoms: irritation eyes, nose, throat; drowsiness, dizziness, headache; dry cracking skin; in animals: narcosis
 Australia NICNAS: Canada CEPA 1999: DSL yes
 Japan CSCL/PRTR: PAC yes, Japan PDSCL: -
 Japan ISHL: listed ≥1,0%/≥0,1%, Article 57-2 (SDS required)
 South Korea TCCA:
 Korea Exist.Chem.Inventory: KE-29363
 LD50_{orl rat}: 5045 mg/kg
 LC_{Loworl hmn}: 3570 mg/kg
 LC50_{ihl rat}: 164h g/m³
 LD50_{drm rbt}: 12.8 g/kg
 TRGS 905 (DE): R_F C

100 mL PW2

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

0.6-100 mg RNase A (Iyo)

Chemical: RNase CAS No.: 9001-99-4
 TSCA Inventory: listed
 Japan CSCL/PRTR: not listed
 Japan ISHL: not listed
 Korea Exist.Chem.Inventory: KE-30341
 LD50_{intraperitoneal rat}: 392 mg/kg
 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.

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

250 mL PC

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 putida/16h}: [72h] 11.8-33.5 mg/L
 Water hazard class (DE): 1 WGK No.: 0788
 Storage class (VCI): 12

Chemical: ethanol CAS No.: 64-17-5
 PNEC(fresh water): 0.96 mg/L
 PNEC = Predicted No Effect Concentration
 LC50_{daphnia magna/48h}: >100 mg/L
 LC50_{pimephales promelas/96h}: 13400 - 15100 mg/L
 LC50_{leuciscus idus/96h}: [48h] 8140 mg/L

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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 putida/16h} : [EC5] 6500 mg/L
 Water hazard class (DE): 1 WGK No.: 0096
 Dispersion coefficient_(octanol-water) : -0.31
 Storage class (VCI): 3

125 mL PE

Chemical: *chemicals/mixture < 1%*
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

CAS No.: -

250 mL PL1

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

CAS No.: 7647-14-5

200 mL PL2

Chemical: *dodecyl sulfate, sodium salt*
 LC50_{daphnia magna/48h} : 6.3 mg/L
 LC50_{fish/96h} : 1.31-22.5 mg/L
 Water hazard class (DE): 2
 Dispersion coefficient_(octanol-water) : 1.6
 Storage class (VCI): 12-13

CAS No.: 151-21-3

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

CAS No.: 7647-14-5

Chemical: *chemicals/mixture < 2%*
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

CAS No.: -

50 mL PL3

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

CAS No.: -

100 mL PW1

Chemical: *guanidine hydrochloride*
 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 putida/16h} : [72h] 11.8-33.5 mg/L
 Water hazard class (DE): 1 WGK No.: 0788
 Storage class (VCI): 12

CAS No.: 50-01-1

Chemical: *2-propanol*
 PNEC_(fresh water) : 140.9 mg/L
 PNEC = Predicted No Effect Concentration
 LC50_{fish/96h} : 1400 mg/L
 EC50_{daphnia/48h} : 13.3 g/L
 IC50_{scenedesmus quadricauda/72h} : >1000 mg/L
 EC10_{pseudomonas putida/16h} : EC5: 1050 mg/L
 Water hazard class (DE): 1 WGK No.: 0135
 Dispersion coefficient_(octanol-water) : 0.05
 Storage class (VCI): 3

CAS No.: 67-63-0

100 mL PW2

Chemical: *chemicals/mixture < 1%*
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

CAS No.: -

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0.6-100 mg RNase A (lyo)

Chemical: RNase

Water hazard class (DE):

Storage class (VCI):

1

13

CAS No.: 9001-99-4

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

SECTION 13: Disposal considerations

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 UN number: 1993 14.2 UN proper shipping name: Flammable liquid, n.o.s. (2-propanol, ethanol mixture)

14.3 Class: 3 14.4 Packing group: III

Road transport

Classification code: F1

Limited Quantity: 5 L

Excepted Quantity: E 1

Tunnel restriction code: E

Special instructions: 640E

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

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 ---

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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.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.

16.1.2 List of relevant P phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260D	Do not breathe vapours.
P261sh	Avoid breathing dust/vapours.
P264W	Wash with water thoroughly after handling.
P280sh	Wear protective gloves/eye protection.
P301+312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

16.2 Training advice

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.

16.3 Recommended restriction on use

Only for professional user.

Look about employee restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!

Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or for DE §§ 11-13 MuSchG 2017)!

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

16.4 Further information

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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, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 849/2021/EU, 4th 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)

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