

Safety Data Sheet

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

REF: 740571.100
Printing date: 15.11.2021

NucleoBond PC 20 (100)
Date of issue: 27.05.2021

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

1.1 Product identifier

REF 740571.100
Product name NucleoBond PC 20 (100)

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 125 mL N2
3 x 125 mL N3
1 x 125 mL N5
2 x 0.6-100 mg RNase A (lyo)
1 x 100 mL S1
1 x 100 mL S2
1 x 100 mL S3

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
Valenciennner 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

H226
H315
H319
H334

Hazard classes/categories

Flam. Liq. 3
Skin Irrit. 2
Eye Irrit. 2
Resp. Sens. 1

2.1 Classification of the substance or mixture

125 mL N2

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GHS02

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

125 mL N3



GHS02

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

125 mL N5



GHS02

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

0.6-100 mg RNase A (lyo)



GHS08

Signal word

DANGER

Hazard identification

Hazard classes/categories

H334

Resp. Sens. 1

100 mL S1

Signal word

Do not need labelling as hazardous

-

No hazard class

100 mL S2

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GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H315
H319

Skin Irrit. 2
Eye Irrit. 2

100 mL S3

Signal word

Do not need labelling as hazardous
-

No hazard class

2.2 Label elements

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

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

125 mL N2



GHS02

Signal word: WARNING

125 mL N3



GHS02

Signal word: WARNING

125 mL N5



GHS02

Signal word: WARNING

0.6-100 mg RNase A (Iyo)



GHS08

Signal word: DANGER

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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.

100 mL S1

Do not need labelling as hazardous

Signal word: -

100 mL S2



GHS07

Signal word: WARNING

100 mL S3

Do not need labelling as hazardous

Signal word: -

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. ---

Information pertaining to particular risks to human and possible symptoms

Cause after 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

125 mL N2

Chemical: *ethanol* (diluted < 20 %)
(denatured with 1%IPA/1%MEK, acc.2016/1867/EU)

CAS No.: 64-17-5d

Classification: H225, Flam. Liq. 2

Formula: C₂ H₆ O; C₂ H₅ 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

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Chemical: *potassium chloride* CAS No.: 7447-40-7
Classification: No criteria for classification or naming of chemical not required.
Formula: KCl
TSCA Inventory: listed
REACH Reg. No.: 01-2119539416-36-xxxx
EC No.: 231-211-8
RTECS: TS8050000 MFCD: 00011360
KE No.: KE-29086
Concentration: 1 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *Triton® X-100* CAS No.: 9002-93-1
Classification: No criteria for classification or naming of chemical not required.
Formula: C₃₃ H₆₀ O_{10,5}
Pseudonym: octoxynol-9
TSCA Inventory: listed
SVHC listed: listed
RTECS: MD0907700 MFCD: 00132505
KE No.: KE-33568
Concentration: < 0.10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *Stabilisators. Buffers. Detergents < 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.

125 mL N3

Chemical: *ethanol* (diluted < 20 %) CAS No.: 64-17-5d
(denatured with 1%IPA/1%MEK, acc.2016/1867/EU)
Classification: H225, Flam. Liq. 2
Formula: C₂ H₆ O; C₂ H₅ OH
Pseudonym: ethyl alcohol, methylated spirit
TSCA Inventory: listed
REACH Reg. No.: 01-2119457610-43-xxxx
EC No.: 200-578-6 Indice No.: 603-002-00-5
RTECS: KQ6300000 MFCD: 00003568
KE No.: KE-13217
Concentration: 5 - <20 %
acc. CLP (GHS): H226, Flam. Liq. 3

Chemical: *potassium chloride* CAS No.: 7447-40-7
Classification: No criteria for classification or naming of chemical not required.
Formula: KCl
TSCA Inventory: listed
REACH Reg. No.: 01-2119539416-36-xxxx
EC No.: 231-211-8
RTECS: TS8050000 MFCD: 00011360
KE No.: KE-29086
Concentration: 1 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *Stabilisators. Buffers. Detergents < 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.

125 mL N5

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Chemical: *ethanol* (diluted < 20 %) CAS No.: 64-17-5d
 (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)
 Classification: H225, Flam. Liq. 2
 Formula: C_2H_6O ; C_2H_5OH
 Pseudonym: ethyl alcohol, methylated spirit
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119457610-43-xxxx
 EC No.: 200-578-6 Indice No.: 603-002-00-5
 RTECS: KQ6300000 MFCD: 00003568
 KE No.: KE-13217
 Concentration: 5 - <20 %
 acc. CLP (GHS): H226, Flam. Liq. 3

Chemical: *potassium chloride* CAS No.: 7447-40-7
 Classification: No criteria for classification or naming of chemical not required.
 Formula: KCl
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119539416-36-xxxx
 EC No.: 231-211-8
 RTECS: TS8050000 MFCD: 00011360
 KE No.: KE-29086
 Concentration: 1 - <10 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *Stabilisers. Buffers. Detergents < 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 (Iyo)

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

100 mL S1

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.

100 mL S2

Chemical: *sodium hydroxide solution* (diluted < 2 %) CAS No.: 1310-73-2d
 Classification: H314, Skin Corr. 1B
 Formula: $NaOH \cdot H_2O$
 Pseudonym: diluted soda lye
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119457892-27-xxxx
 EC No.: 215-185-5 Indice No.: 011-002-00-6
 RTECS: WB4900000
 KE No.: KE-31487
 Concentration: 0.5 - <1 %
 acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2

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Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3
 Classification: H228, Flam. Sol. 1, H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H318, Eye Dam. 1, H332, Acute Tox. 4 inh., H335, STOT SE 3, H412, Aquatic Chronic 3
 Formula: $C_{12}H_{25}NaO_4S$
 Pseudonym: sodium lauryl sulfate, sulfuric acid monododecyl ester sodium salt
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119489461-32-xxxx
 EC No.: 205-788-1
 RTECS: WT1050000 MFCD: 00036175
 KE No.: KE-21884
 Concentration: 0.1 - <1 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

100 mL S3

Chemical: *acetate buffer solution* CAS No.: -
 Classification: No criteria for classification or naming of chemical not required.
 Formula: $CH_3COOH/K/Na \cdot H_2O$
 TSCA Inventory: all listed
 KE No.: listed
 Concentration: 25 - <45 %
 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. 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 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. ---

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5.3 Advice for firefighters

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

5.4 Additional information

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. Regular staff training is necessary, 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

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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

125 mL N2

Chemical: *ethanol*

CAS No.: 64-17-5d

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 ppm / 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: 1000 ppm / 1900 mg/m³

Chemical: *potassium chloride*

CAS No.: 7447-40-7

Chemical: *Triton® X-100*

CAS No.: 9002-93-1

Chemical: *Stabilisators. Buffers. Detergents < 1%*

CAS No.: -

125 mL N3

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Chemical: *ethanol* CAS No.: 64-17-5d
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 ppm / 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: 1000 ppm / 1900 mg/m³

Chemical: *potassium chloride* CAS No.: 7447-40-7

Chemical: *Stabilisators. Buffers. Detergents < 1%* CAS No.: -

125 mL N5

Chemical: *ethanol* CAS No.: 64-17-5d
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 ppm / 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: 1000 ppm / 1900 mg/m³

Chemical: *potassium chloride* CAS No.: 7447-40-7

Chemical: *Stabilisators. Buffers. Detergents < 1%* CAS No.: -

0.6-100 mg RNase A (Iyo)

Chemical: *RNase* CAS No.: 9001-99-4

100 mL S1

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

100 mL S2

Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2d

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

100 mL S3

Chemical: *acetate buffer solution* CAS No.: -

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.

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- 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

125 mL N2

Appearance: liquid	Colour: colourless	Odor: alcoholic
pH:	6-6.5	
Flash point:	38 °C	
Specific gravity:	1.03 g/mL	

125 mL N3

Appearance: liquid	Colour: colourless	Odor: alcoholic
pH:	6-6.5	
Flash point:	49 °C	
Specific gravity:	1.04 g/cm³	

125 mL N5

Appearance: liquid	Colour: colourless	Odor: alcoholic
pH:	8-9	
Flash point:	38 °C	
Specific gravity:	1.03 g/cm³	

0.6-100 mg RNase A (Iyo)

Appearance: solid (lyoph.)	Colour: colourless	Odor: odorless
Solubility in water:	0-100 %	

100 mL S1

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	7.5-8.5	
Specific gravity:	1.00 g/cm³	

100 mL S2

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	> 12	
Specific gravity:	1.008 g/mL	

100 mL S3

Appearance: liquid	Colour: colourless	Odor: acetic
pH:	5- 5.5	
Specific gravity:	1.14 g/mL	

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.

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10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

No further data available.

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.

125 mL N2

Chemical: *ethanol* CAS No.: 64-17-5d
TSCA Inventory: listed California Proposition 65 List: not listed
ACGIH: 1000 ppm
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system
Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough;
liver damage; anemia; reproductive, teratogenic
Australia NICNAS: not listed Canada CEPA 1999: DSL yes
Japan CSCL/PRTR: not listed, Japan 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_{orl rat}: 6200 mg/kg
LC₅₀_{ihl gpg}: 21.9 g/m³
LC₅₀_{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

Chemical: *potassium chloride* CAS No.: 7447-40-7
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-29086
LD50_{orl rat}: 2600 mg/kg

Chemical: *Triton® X-100* CAS No.: 9002-93-1
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-33568
LD50_{orl rat}: 707-1800 mg/kg
LD50_{drm rbt}: 3000-12300 mg/kg

Chemical: *Stabilisators. Buffers. Detergents < 1%* CAS No.: -
TSCA Inventory: all listed, <1%
Korea Exist.Chem.Inventory: listed

125 mL N3

Chemical: *ethanol* CAS No.: 64-17-5d
TSCA Inventory: listed California Proposition 65 List: not listed
ACGIH: 1000 ppm
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system

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Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough;
liver damage; anemia; reproductive, teratogenic
Australia NICNAS: not listed Canada CEPA 1999: DSL yes
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: listed $\geq 0,1\%$ / $\geq 0,1\%$, Article 57-2 (SDS required)
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-13217
LD50_{orl rat}: 6200 mg/kg
LC_{LoWihl} gpg: 21.9 g/m³
LC_{LoWorl} 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

Chemical: *potassium chloride*
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-29086
LD50_{orl rat}: 2600 mg/kg

CAS No.: 7447-40-7

Chemical: *Stabilisators. Buffers. Detergents < 1%*
TSCA Inventory: all listed, <1%
Korea Exist.Chem.Inventory: listed

CAS No.: -

125 mL N5

Chemical: *ethanol* CAS No.: 64-17-5d
TSCA Inventory: listed California Proposition 65 List: not listed
ACGIH: 1000 ppm
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system
Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough;
liver damage; anemia; reproductive, teratogenic
Australia NICNAS: not listed Canada CEPA 1999: DSL yes
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: listed $\geq 0,1\%$ / $\geq 0,1\%$, Article 57-2 (SDS required)
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-13217
LD50_{orl rat}: 6200 mg/kg
LC_{LoWihl} gpg: 21.9 g/m³
LC_{LoWorl} 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

Chemical: *potassium chloride*
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-29086
LD50_{orl rat}: 2600 mg/kg

CAS No.: 7447-40-7

Chemical: *Stabilisators. Buffers. Detergents < 1%*
TSCA Inventory: all listed, <1%
Korea Exist.Chem.Inventory: listed

CAS No.: -

0.6-100 mg RNase A (Iyo)

Chemical: *RNase*
TSCA Inventory: listed
Japan CSCL/PRTR: not listed
Japan ISHL: not listed

CAS No.: 9001-99-4

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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.

100 mL S1

Chemical: chemicals/mixture < 1%

CAS No.: -

TSCA Inventory: all listed, <1%

Korea Exist.Chem.Inventory: listed

100 mL S2

Chemical: sodium hydroxide solution

CAS No.: 1310-73-2d

TSCA Inventory: listed

California Proposition 65 List: not listed

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

Target Organs: Eyes, skin, respiratory system

Symptoms: -

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

Japan ISHL: listed ≥1,0%/≥1,0% SDS required

Korea Exist.Chem.Inventory: KE-31487

LD50_{oral rat}: < 1% > 50 g/kg

LD50_{derm rabbit}: not applicable

LD50_{oral mus}: < 1% > 4 g/kg

Chemical: dodecyl sulfate, sodium salt

CAS No.: 151-21-3

TSCA Inventory: listed

California Proposition 65 List: not listed

Australia NICNAS: not listed

Canada CEPA 1999: DSL yes

Japan CSCL/PRTR: PRTR - Class I Designated Chemical Substance, Japan PDSCL: not listed

Japan ISHL: not listed

South Korea TCCA: not listed

Korea Exist.Chem.Inventory: KE-21884

LD50_{oral rat}: 1288 mg/kg

LC50_{inh rat}: 3900_{1h} mg/m³

LD50_{derm rabbit}: 10 g/kg

100 mL S3

Chemical: acetate buffer solution

CAS No.: -

TSCA Inventory: all listed

Korea Exist.Chem.Inventory: listed

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

125 mL N2

Chemical: ethanol

CAS No.: 64-17-5d

PNEC_(fresh water): 0.96 mg/L

PNEC = Predicted No Effect Concentration

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

LC50_{pimephales promelas/96h}: 13.4-15.1 g/L

LC50_{leuciscus idus/96h}: [48h] 8.14 g/L

LC50_{fish/96h}: 13 g/L

EC50_{daphnia/48h}: 9.3-14.2 g/L

IC50_{scenedesmus quadricauda/72h}: [7d] 5000 mg/L

EC10_{pseudomonas putida/16h}: [EC5] 6500 mg/L

Water hazard class (DE): 1 WGK No.: 0096

Dispersion coefficient_(octanol-water): -0.31

Storage class (VCI): 3

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

Chemical: *Triton® X-100* CAS No.: 9002-93-1
 Water hazard class (DE): 1 WGK No.: n.n.
 Storage class (VCI): 12-13

Chemical: *Stabilisators. Buffers. Detergents < 1%* CAS No.: -
 Storage class (VCI): 12-13

125 mL N3

Chemical: *ethanol* CAS No.: 64-17-5d
 PNEC(fresh water): 0.96 mg/L
 PNEC = Predicted No Effect Concentration
 LC50daphnia magna/48h: >100 g/L
 LC50pimephales promelas/96h: 13.4-15.1 g/L
 LC50leuciscus idus/96h: [48h] 8.14 g/L
 LC50fish/96h: 13 g/L
 EC50daphnia/48h: 9.3-14.2 g/L
 IC50scenedesmus quadricauda/72h: [7d] 5000 mg/L
 EC10pseudomonas putida/16h: [EC5] 6500 mg/L
 Water hazard class (DE): 1 WGK No.: 0096
 Dispersion coefficient(octanol-water): -0.31
 Storage class (VCI): 3

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

Chemical: *Stabilisators. Buffers. Detergents < 1%* CAS No.: -
 Storage class (VCI): 12-13

125 mL N5

Chemical: *ethanol* CAS No.: 64-17-5d
 PNEC(fresh water): 0.96 mg/L
 PNEC = Predicted No Effect Concentration
 LC50daphnia magna/48h: >100 g/L
 LC50pimephales promelas/96h: 13.4-15.1 g/L
 LC50leuciscus idus/96h: [48h] 8.14 g/L
 LC50fish/96h: 13 g/L
 EC50daphnia/48h: 9.3-14.2 g/L
 IC50scenedesmus quadricauda/72h: [7d] 5000 mg/L
 EC10pseudomonas putida/16h: [EC5] 6500 mg/L
 Water hazard class (DE): 1 WGK No.: 0096
 Dispersion coefficient(octanol-water): -0.31
 Storage class (VCI): 3

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

Chemical: *Stabilisators. Buffers. Detergents < 1%* CAS No.: -
 Storage class (VCI): 12-13

0.6-100 mg RNase A (lyo)

Chemical: *RNase* CAS No.: 9001-99-4
 Water hazard class (DE): 1
 Storage class (VCI): 13

100 mL S1

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

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100 mL S2

Chemical: *sodium hydroxide solution*
 LC50_{leuciscus idus/96h}: 35-189 mg/L
 LC50_{fish/96h}: 45.4 mg/L
 EC50_{daphnia/48h}: >100 mg/L
 Water hazard class (DE): nwg WGK No.: 0142
 Storage class (VCI): 12-13

CAS No.: 1310-73-2d

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

100 mL S3

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

CAS No.: -

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

14.5 Environmental hazards

none, contains only small quantities of hazardous substances

14.6 Special precautions for user

not necessary

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013
 German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC
 TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011
 MN Leaflet/User manual, also see www.mn-net.com
 Look for your country-specific regulations.

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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.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

16.1.2 List of relevant P phrases

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261sh Avoid breathing dust/vapours.
P280sh Wear protective gloves/eye protection.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

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