

Safety Data Sheet

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

REF: 740579

NucleoBond BAC 100 (10)

Page: 1/17

Printing date: 15.11.2021

Date of issue: 27.05.2021

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

1.1 Product identifier

REF 740579
Product name NucleoBond BAC 100 (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 70 mL N2
2 x 250 mL N3
1 x 200 mL N5
1 x 0.6-100 mg RNase A (lyo)
1 x 250 mL S1
1 x 250 mL S2
1 x 250 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

70 mL N2

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GHS02

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

250 mL N3



GHS02

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

200 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

250 mL S1

Signal word

Do not need labelling as hazardous

-

No hazard class

250 mL S2

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GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H315

Skin Irrit. 2

H319

Eye Irrit. 2

250 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.

70 mL N2



GHS02

Signal word: WARNING

250 mL N3



GHS02

Signal word: WARNING

H226

Flammable liquid and vapour.

P210

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

200 mL N5



GHS02

Signal word: WARNING

H226

Flammable liquid and vapour.

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P210

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

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.

250 mL S1

Do not need labelling as hazardous

Signal word: -

250 mL S2



GHS07

Signal word: WARNING

H315, H319

Causes skin irritation. Causes serious eye irritation.

P280sh

Wear protective gloves/eye protection.

250 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. Vapour forms explosive mixtures with air. ---

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

70 mL N2

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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: 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: *Triton® X-100* CAS No.: 9002-93-1
Classification: No criteria for classification or naming of chemical not required.
Formula: $C_{33}H_{60}O_{10,5}$
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.

250 mL N3

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: 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.

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Chemical: *Stabilisators. Buffers. Detergents < 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.: -

200 mL N5

Chemical: *ethanol* (diluted < 20 %)
(denatured with 1%IPA/1%MEK, acc.2016/1867/EU)
Classification: H225, Flam. Liq. 2
Formula: C₂H₆O; C₂H₅OH
Pseudonym: ethyl alcohol, methylated spirit
TSCA Inventory: listed
REACH Reg. No.: 01-2119457610-43-xxxx
EC No.: 200-578-6
RTECS: KQ6300000
KE No.: KE-13217
Concentration: 5 - <20 %
acc. CLP (GHS): H226, Flam. Liq. 3

CAS No.: 64-17-5d

Indice No.:

603-002-00-5

MFCD:

00003568

Chemical: *potassium chloride*
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
KE No.: KE-29086
Concentration: 1 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 7447-40-7

MFCD:

00011360

Chemical: *Stabilisators. Buffers. Detergents < 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.: -

0.6-100 mg RNase A (Iyo)

Chemical: *RNase*
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

CAS No.: 9001-99-4

250 mL S1

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 S2

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Chemical: *sodium hydroxide solution* (diluted < 2 %) CAS No.: 1310-73-2d
Classification: H314, Skin Corr. 1B
Formula: NaOH·H₂O
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

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: 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 MFCD: 00036175
KE No.: KE-21884
Concentration: 0.1 - <1 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

250 mL S3

Chemical: *acetate buffer solution* CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
Formula: CH₃ COOH/K/Na·H₂O
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 immediately. Rinse the affected skin or mucous membrane thoroughly for min. 15 minutes under running water. (If possible) use soap. Avoid neutralisation. Then apply a loose bandage.

4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open for min. 10 minutes with eye washing bottle, eye douche or running water (protect intact eye). Before (if possible) apply eye drops Proxymetacaine 0.5%, if the opening the eyelid convulsion is painful. Further treatment to be carried out by an eye specialist.

4.1.3 After INHALATION of 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. Do not induce vomiting under any circumstances. Do not make any efforts to neutralise it. Contact medical advice for possible consequences. ---

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. ---

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4.3 Indication of any immediate medical attention and special treatment needed

After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive chemical. Further treatment must to be carried out by an eye specialist. 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). Wear eye protection. 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

70 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.: -

250 mL N3

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.: -

200 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

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250 mL S1

Chemical: chemicals/mixture < 1%

CAS No.: -

250 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

250 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.

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

70 mL N2

Appearance: liquid

Colour: colourless

Odor: alcoholic

pH:

6-6.5

Flash point:

38 °C

Specific gravity:

1.03 g/mL

250 mL N3

Appearance: liquid

Colour: colourless

Odor: alcoholic

pH:

6-6.5

Flash point:

49 °C

Specific gravity:

1.04 g/cm³

200 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 (lyo)

Appearance: solid (lyoph.)

Colour: colourless

Odor: odorless

Solubility in water:

0-100 %

250 mL S1

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7.5-8.5

Specific gravity:

1.00 g/cm³

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250 mL S2

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

> 12

Specific gravity:

1.008 g/mL

250 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.

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

But avoid reactions 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.

70 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 PDSCL: not listed

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

South Korea TCCA: not listed

Korea Exist.Chem.Inventory: KE-13217

LD50_{oral rat}: 6200 mg/kg

LC₅₀_{inhal gpg}: 21.9 g/m³

LC₅₀_{inhal hmn}: 1400 mg/kg

LC50_{inhal mouse}: [4h] 39 g/m³

LC50_{inhal rat}: [10h] 20 g/m³

LD50_{derm rbt}: 20 000 mg/kg

LD50_{oral mouse}: 3450 mg/kg

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

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Chemical: <i>potassium chloride</i>		CAS No.: 7447-40-7
TSCA Inventory: listed		
Korea Exist.Chem.Inventory: KE-29086		
LD50 _{orl rat} : 2600 mg/kg		

Chemical: <i>Triton® X-100</i>		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: <i>Stabilisators. Buffers. Detergents < 1%</i>		CAS No.: -
TSCA Inventory: all listed, <1%		
Korea Exist.Chem.Inventory: listed		

250 mL N3

Chemical: <i>ethanol</i>		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 ≥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 _{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: <i>potassium chloride</i>		CAS No.: 7447-40-7
TSCA Inventory: listed		
Korea Exist.Chem.Inventory: KE-29086		
LD50 _{orl rat} : 2600 mg/kg		

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

200 mL N5

Chemical: <i>ethanol</i>		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 ≥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 _{Lowihl} gpg: 21.9 g/m³		
LC _{Loworl} hmn: 1400 mg/kg		

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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
 Korea Exist.Chem.Inventory: KE-30341
 LD50_{intraperitoneal} rat : 392 mg/kg

CAS No.: 9001-99-4

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.

250 mL S1

Chemical: *chemicals/mixture < 1%*
 TSCA Inventory: all listed, <1%
 Korea Exist.Chem.Inventory: listed

CAS No.: -

250 mL S2

Chemical: *sodium hydroxide solution*
 TSCA Inventory: listed
 Exposure Routes: inhalation, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system
 Symptoms: -
 Japan CSCL/PRTR: not listed, Japan PDSCS: not listed
 Japan ISHL: listed ≥1,0%/≥1,0% SDS required
 Korea Exist.Chem.Inventory: KE-31487
 LD50_{orl} rat : [< 1%] > 50 g/kg
 LD50_{drm} rbt : not applicable
 LD50_{orl} mus : [< 1%] > 4 g/kg

CAS No.: 1310-73-2d

Chemical: *dodecyl sulfate, sodium salt*
 TSCA Inventory: listed
 Australia NICNAS: not listed
 Japan CSCL/PRTR: PRTR - Class I Designated Chemical Substance, Japan PDSCS: not listed
 Japan ISHL: not listed
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: KE-21884
 LD50_{orl} rat : 1288 mg/kg
 LC50_{inh} rat : 3900_{th} mg/m³
 LD50_{drm} rbt : 10 g/kg

CAS No.: 151-21-3

250 mL S3

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Chemical: acetate buffer solution
TSCA Inventory: all listed
Korea Exist.Chem.Inventory: listed

CAS No.: -

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

70 mL N2

Chemical: ethanol
PNEC(fresh water): 0.96 mg/L
PNEC = Predicted No Effected 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 putita/16h: [EC5] 6500 mg/L
Water hazard class (DE): 1 WGK No.: 0096
Dispersion coefficient(octanol-water): -0.31
Storage class (VCI): 3

CAS No.: 64-17-5d

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

CAS No.: 7447-40-7

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

CAS No.: 9002-93-1

Chemical: Stabilisators. Buffers. Detergents < 1%
Storage class (VCI): 12-13

CAS No.: -

250 mL N3

Chemical: ethanol
PNEC(fresh water): 0.96 mg/L
PNEC = Predicted No Effected 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 putita/16h: [EC5] 6500 mg/L
Water hazard class (DE): 1 WGK No.: 0096
Dispersion coefficient(octanol-water): -0.31
Storage class (VCI): 3

CAS No.: 64-17-5d

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

CAS No.: 7447-40-7

Chemical: Stabilisators. Buffers. Detergents < 1%
Storage class (VCI): 12-13

CAS No.: -

200 mL N5

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

CAS No.: 64-17-5d

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

CAS No.: 7447-40-7

Chemical: *Stabilisators. Buffers. Detergents < 1%*
Storage class (VCI): 12-13

CAS No.: -

0.6-100 mg RNase A (lyo)

Chemical: *RNase*
Water hazard class (DE): 1
Storage class (VCI): 13

CAS No.: 9001-99-4

250 mL S1

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

CAS No.: -

250 mL S2

Chemical: *sodium hydroxide solution*
LC50leuciscus idus/96h : 35-189 mg/L
LC50fish/96h : 45.4 mg/L
EC50daphnia/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*
LC50daphnia magna/48h : 6.3 mg/L
LC50fish/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

250 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

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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.

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
 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