

Safety Data Sheet

SDS acc. Hazard Communication Standard

REF: 740426.10

NucleoBond Xtra Maxi Plus EF (10)

Page: 1/22

Printing Date: 27.02.2020

Date of Issue: 20.05.2019

Section 1: Identification

1.1 Product Identifier / Product Name

REF	740426.10
Product Name	NucleoBond Xtra Maxi Plus EF (10)
-	<ul style="list-style-type: none"> 1 x 180 mL ELU-EF 1 x 1000 mL ENDO-EF 1 x 400 mL EQU-EF 1 x 125 mL FIL-EF 1 x 150 mL LYS-EF 1 x 150 mL NEU-EF 1 x 150 mL RES-EF 1 x 0.6-100 mg RNase A (lyo) 1 x 30 mL TE-EF 1 x 500 mL WASH-EF 1 x 35 mL H₂O-EF (for 70% ethanol) 1 x 30 mL H₂O-EF

1.2 Relevant identified Uses of the Substance or Mixture and Uses advised against

Relevant identified uses

Product for Analytical Use.

The Exposure scenario is integrated into sections 1-16.

Uses advised against

not described

1.3 Details of the Supplier and of the Safety Data Sheet

Manufactured by:

MACHEREY-NAGEL GmbH & Co. KG
 Neumann-Neander-Str. 6-8, 52355 Düren, GERMANY
 Tel.: +49 2421 969 0

E-mail: sds@mn-net.com (msds@mn-net.com)

1.4 Emergency Telephone Number

For Chemical Emergency

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night (CCN685047)

Within USA and Canada: **1-800-424-9300**Outside USA and Canada: **+1 703-527-3887** (collect calls accepted)

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

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

Section 2: Hazard(s) 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(s) or Mixture(s)

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180 mL ELU-EF



GHS02 GHS07

Signal Word **WARNING**

Hazard Identification	Hazard Classes/Categories
H226 H319	Flam. Liq. 3 Eye Irrit. 2

1000 mL ENDO-EF



GHS02

Signal Word **WARNING**

Hazard Identification	Hazard Classes/Categories
H226	Flam. Liq. 3

400 mL EQU-EF



GHS02

Signal Word **WARNING**

Hazard Identification	Hazard Classes/Categories
H226	Flam. Liq. 3

125 mL FIL-EF

Signal Word Do not need labelling as hazardous
-

No Hazard Class

150 mL LYS-EF



GHS07

Signal Word **WARNING**

Hazard Identification	Hazard Classes/Categories
H315 H319	Skin Irrit. 2 Eye Irrit. 2

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150 mL NEU-EF

Signal Word Do not need labelling as hazardous
-

No Hazard Class

150 mL RES-EF

Signal Word Do not need labelling as hazardous
-

No Hazard Class

0.6-100 mg RNase A (Iyo)



GHS08
Signal Word DANGER

Hazard Identification	Hazard Classes/Categories
H334	Resp. Sens. 1

30 mL TE-EF

Signal Word Do not need labelling as hazardous
-

No Hazard Class

500 mL WASH-EF



GHS02
Signal Word WARNING

Hazard Identification	Hazard Classes/Categories
H226	Flam. Liq. 3

35 mL H₂ O-EF (for 70% ethanol)

Signal Word Do not need labelling as hazardous
-

No Hazard Class

30 mL H₂ O-EF

Signal Word Do not need labelling as hazardous
-

No Hazard Class

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2.2 Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

According the implementation of GHS immediate packages only must be labelled with product identifier(s), GHS symbol(s), signal word, manufacturer name and phone number (OSHA's interpretation of HCS 2012).

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) / **until 100 mL** (Canada WHMIS 2015). This labelling exemption does not apply to U.S.A. This labelling exemption is NOT valid for sensibilizing substances.

180 mL ELU-EF



GHS02 GHS07

Signal Word: WARNING

H226, H319

Flammable liquid and vapor. Causes serious eye irritation.

P210, P280sh

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/eye protection.

1000 mL ENDO-EF



GHS02

Signal Word: WARNING

H226

Flammable liquid and vapor.

P210

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

400 mL EQU-EF



GHS02

Signal Word: WARNING

H226

Flammable liquid and vapor.

P210

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

125 mL FIL-EF

Do not need labelling as hazardous

Signal Word: -

150 mL LYS-EF



GHS07

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Signal Word: WARNING

H315, H319

Causes skin irritation. Causes serious eye irritation.

P280sh

Wear protective gloves/eye protection.

150 mL NEU-EF

Do not need labelling as hazardous

Signal Word: -

150 mL RES-EF

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/vapors. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

30 mL TE-EF

Do not need labelling as hazardous

Signal Word: -

500 mL WASH-EF



GHS02

Signal Word: WARNING

H226

Flammable liquid and vapor.

P210

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

35 mL H₂ O-EF (for 70% ethanol)

Do not need labelling as hazardous

Signal Word: -

30 mL H₂ O-EF

Do not need labelling as hazardous

Signal Word: -

2.3 Other Hazards

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

Kit contains small amounts of enzymes, which may cause sensitization by direct and repeated contact. -

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

180 mL ELU-EF

Chemical:	<i>2-propanol</i>	CAS No.:	67-63-0
Classification:	H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3		
Chemical Formula:	C ₃ H ₈ O		
Synonyms:	isopropanol, IPA, propan-2-ol		
TSCA Inventory:	listed		
RTECS:	NT8050000	MFCD:	00011674
EC No.:	200-661-7	Indice No.:	603-117-00-0
Weight Percent:	10 - <15 %		
acc. GHS:	H226, Flam. Liq. 3, H319, Eye Irrit. 2		

Chemical:	<i>potassium chloride</i>	CAS No.:	7447-40-7
Classification:	No criteria for classification or naming of chemical is not required.		
Chemical Formula:	KCl		
TSCA Inventory:	listed		
RTECS:	TS8050000	MFCD:	00011360
EC No.:	231-211-8		
Weight Percent:	1 - <10 %		
acc. GHS:	The criteria for classification are not fulfilled.		

Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical is not required.		
TSCA Inventory:	all listed, <1%		
Weight Percent:	0,1 - <1 %		
acc. GHS:	The criteria for classification are not fulfilled.		

1000 mL ENDO-EF

Chemical:	<i>ethanol (diluted < 20 %)</i> (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)	CAS No.:	64-17-5d
Classification:	H225, Flam. Liq. 2		
Chemical Formula:	C ₂ H ₆ O; C ₂ H ₅ OH		
Synonyms:	ethyl alcohol, methylated spirit		
TSCA Inventory:	listed		
RTECS:	KQ6300000	MFCD:	00003568
EC No.:	200-578-6	Indice No.:	603-002-00-5
Weight Percent:	5 - <20 %		
acc. GHS:	H226, Flam. Liq. 3		

Chemical:	<i>potassium chloride</i>	CAS No.:	7447-40-7
Classification:	No criteria for classification or naming of chemical is not required.		
Chemical Formula:	KCl		
TSCA Inventory:	listed		
RTECS:	TS8050000	MFCD:	00011360
EC No.:	231-211-8		
Weight Percent:	1 - <10 %		
acc. GHS:	The criteria for classification are not fulfilled.		

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Chemical: *chemicals/mixture < 1%* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 TSCA Inventory: all listed, <1%
 Weight Percent: 0,1 - <1 %
 acc. GHS: The criteria for classification are not fulfilled.

400 mL EQU-EF

Chemical: *ethanol (diluted < 20 %)* CAS No.: 64-17-5d
 (denatured with 1%IPA/1%MEK, acc.2016/1867/EU)
 Classification: H225, Flam. Liq. 2
 Chemical Formula: C₂H₆O; C₂H₅OH
 Synonyms: ethyl alcohol, methylated spirit
 TSCA Inventory: listed
 RTECS: KQ6300000 MFCD: 00003568
 EC No.: 200-578-6 Indice No.: 603-002-00-5
 Weight Percent: 5 - <20 %
 acc. GHS: H226, Flam. Liq. 3

Chemical: *potassium chloride* CAS No.: 7447-40-7
 Classification: No criteria for classification or naming of chemical is not required.
 Chemical Formula: KCl
 TSCA Inventory: listed
 RTECS: TS8050000 MFCD: 00011360
 EC No.: 231-211-8
 Weight Percent: 1 - <10 %
 acc. GHS: The criteria for classification are not fulfilled.

Chemical: *chemicals/mixture < 1%* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 TSCA Inventory: all listed, <1%
 Weight Percent: 0,1 - <1 %
 acc. GHS: The criteria for classification are not fulfilled.

125 mL FIL-EF

Chemical: *potassium chloride* CAS No.: 7447-40-7
 Classification: No criteria for classification or naming of chemical is not required.
 Chemical Formula: KCl
 TSCA Inventory: listed
 RTECS: TS8050000 MFCD: 00011360
 EC No.: 231-211-8
 Weight Percent: 1 - <10 %
 acc. GHS: The criteria for classification are not fulfilled.

Chemical: *chemicals/mixture < 1%* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 TSCA Inventory: all listed, <1%
 Weight Percent: 0,1 - <1 %
 acc. GHS: The criteria for classification are not fulfilled.

150 mL LYS-EF

Chemical: *sodium hydroxide solution (diluted < 2 %)* CAS No.: 1310-73-2d
 Classification: H314, Skin Corr. 1B
 Chemical Formula: NaOH·H₂O
 Synonyms: diluted soda lye
 TSCA Inventory: listed
 RTECS: WB4900000
 EC No.: 215-185-5 Indice No.: 011-002-00-6
 Weight Percent: 0,5 - <1 %
 acc. 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
 Chemical Formula: $C_{12}H_{25}NaO_4S$
 Synonyms: sodium lauryl sulfate, sulfuric acid monododecyl ester sodium salt
 TSCA Inventory: listed
 RTECS: WT1050000 MFCD: 00036175
 EC No.: 205-788-1
 Weight Percent: 0,1 - <1 %
 acc. GHS: The criteria for classification are not fulfilled.

Chemical: *indicator dye(s)* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 TSCA Inventory: all listed, <1%
 Weight Percent: < 0,01 %
 acc. GHS: The criteria for classification are not fulfilled.

150 mL NEU-EF

Chemical: *acetate buffer solution* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 Chemical Formula: $CH_3COOH/K/Na \cdot H_2O$
 TSCA Inventory: all listed
 Weight Percent: 25 - <45 %
 acc. GHS: The criteria for classification are not fulfilled.

150 mL RES-EF

Chemical: *chemicals/mixture < 1%* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 TSCA Inventory: all listed, <1%
 Weight Percent: 0,1 - <1 %
 acc. 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
 Chemical Formula: Enzyme Comm. No. 3.1.27.5, origin: bovine pancreas (controlled population)
 Synonyms: Nuclease, ribo-
 TSCA Inventory: listed
 RTECS: RF0760000
 EC No.: 232-646-6
 Weight Percent: 90 - <100 %
 acc. GHS: H334, Resp. Sens. 1

30 mL TE-EF

Chemical: *chemicals/mixture < 1%* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 TSCA Inventory: all listed, <1%
 Weight Percent: 0,1 - <1 %
 acc. GHS: The criteria for classification are not fulfilled.

500 mL WASH-EF

Chemical: *ethanol (diluted < 20 %) (denaturated with 1%IPA/1%MEK, acc.2016/1867/EU)* CAS No.: 64-17-5d
 Classification: H225, Flam. Liq. 2
 Chemical Formula: C_2H_6O ; C_2H_5OH
 Synonyms: ethyl alcohol, methylated spirit
 TSCA Inventory: listed
 RTECS: KQ6300000 MFCD: 00003568
 EC No.: 200-578-6 Indices No.: 603-002-00-5
 Weight Percent: 5 - <20 %
 acc. 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 is not required.
 Chemical Formula: KCl
 TSCA Inventory: listed
 RTECS: TS8050000 MFCID: 00011360
 EC No.: 231-211-8
 Weight Percent: 1 - <10 %
 acc. GHS: The criteria for classification are not fulfilled.

Chemical: *chemicals/mixture < 1%* CAS No.: -
 Classification: No criteria for classification or naming of chemical is not required.
 TSCA Inventory: all listed, <1%
 Weight Percent: 0,1 - <1 %
 acc. GHS: The criteria for classification are not fulfilled.

35 mL H₂O-EF (for 70% ethanol)

Chemical: *water* CAS No.: 7732-18-5
 Classification: No criteria for classification or naming of chemical is not required.
 Chemical Formula: H₂O
 TSCA Inventory: listed
 RTECS: ZC0110000
 EC No.: 231-791-2
 Weight Percent: 90 - <100 %
 acc. GHS: The criteria for classification are not fulfilled.

30 mL H₂O-EF

Chemical: *water* CAS No.: 7732-18-5
 Classification: No criteria for classification or naming of chemical is not required.
 Chemical Formula: H₂O
 TSCA Inventory: listed
 RTECS: ZC0110000
 EC No.: 231-791-2
 Weight Percent: 90 - <100 %
 acc. 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 Hazard and Precaution 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 Vapors

After inhalation of foam or vapor 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 neutralize it. Contact medical advice for possible consequences.

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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

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 substance. 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: Fire-Fighting Measures

5.1 Extinguishable 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 WATER FOG, WATER SPRAY, alcohol-resistant FOAM, DRY CHEMICAL, CARBON DIOXIDE can be used.

5.2 Special Hazards arising from the Substance or Mixture

WARNING: Flammable. May form explosive vapor-air mixtures. Formation of hazardous and caustic vapor-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 vapors 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 Procedure

Do not breathe vapors. 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 hazards. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into sewer.

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 Conditions for Safe Storage, including any Incompatibilities

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

180 mL ELU-EF

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

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

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

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

1000 mL ENDO-EF

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

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

400 mL EQU-EF

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

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

125 mL FIL-EF

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

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

150 mL LYS-EF

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

Chemical: *indicator dye(s)* CAS No.: -

150 mL NEU-EF

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

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150 mL RES-EF

Chemical: *chemicals/mixture < 1%*

CAS No.: -

0.6-100 mg RNase A (lyo)

Chemical: *RNase*

CAS No.: 9001-99-4

30 mL TE-EF

Chemical: *chemicals/mixture < 1%*

CAS No.: -

500 mL WASH-EF

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

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: *chemicals/mixture < 1%*

CAS No.: -

35 mL H₂O-EF (for 70% ethanol)

Chemical: *water*

CAS No.: 7732-18-5

30 mL H₂O-EF

Chemical: *water*

CAS No.: 7732-18-5

8.2 Exposure Controls

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

8.2.1 Respiratory Protection

Use for open access of these substances for example a vapor/dust respirator, class A/AX. No additional recommendations.

8.2.2 Hand Protection

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

8.2.3 Eye/Face Protection

Yes, Splash Goggles.

8.2.4 Skin Protection

Recommended to avoid contamination with these hazards.

8.2.5 Hygiene Measures

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

180 mL ELU-EF

- | | | |
|--|--------------------|--------------------|
| a) Appearance: liquid | Color: colorless | b) Odor: alcoholic |
| c) Odor Threshold: | data not available | |
| d) pH: | 8.5-9.5 | |
| e) Melting Point: | data not available | |
| f) Boiling Point: | data not available | |
| g) Flash Point: | 30 °C | |
| h) Evaporation Rate _(ether=1) : | data not available | |
| i) Flammability (solid, gas): | data not available | |
| j) Explosive Limits: | data not available | |
| k) Vapor Pressure (68°F): | data not available | |
| l) Vapor Density _(air=1) : | data not available | |

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- m) Specific Gravity: 1.04 g/cm³
- n) Soluble in Water: data not available
- o) Partition Coefficient (o-w): data not available
- p) Autoignition Temperature: data not available
- q) Decomposition temperature: data not available
- r) Viscosity: data not available
- s) Explosive properties: data not available
- t) Oxidizing properties: ---

1000 mL ENDO-EF

- a) Appearance: liquid Color: colorless b) Odor: alcoholic
- c) Odor Threshold: data not available
- d) pH: 6-7
- e) Melting Point: data not available
- f) Boiling Point: data not available
- g) Flash Point: 39 °C
- h) Evaporation Rate(ether=1) : data not available
- i) Flammability (solid, gas): data not available
- j) Explosive Limits: data not available
- k) Vapor Pressure (68°F): data not available
- l) Vapor Density(air=1) : data not available
- m) Specific Gravity: 1.04 g/cm³
- n) Soluble in Water: data not available
- o) Partition Coefficient (o-w): data not available
- p) Autoignition Temperature: data not available
- q) Decomposition temperature: data not available
- r) Viscosity: data not available
- s) Explosive properties: data not available
- t) Oxidizing properties: ---

400 mL EQU-EF

- a) Appearance: liquid Color: colorless b) Odor: alcoholic
- c) Odor Threshold: data not available
- d) pH: 6-7
- e) Melting Point: data not available
- f) Boiling Point: data not available
- g) Flash Point: 39 °C
- h) Evaporation Rate(ether=1) : data not available
- i) Flammability (solid, gas): data not available
- j) Explosive Limits: data not available
- k) Vapor Pressure (68°F): data not available
- l) Vapor Density(air=1) : data not available
- m) Specific Gravity: 1.04 g/cm³
- n) Soluble in Water: data not available
- o) Partition Coefficient (o-w): data not available
- p) Autoignition Temperature: data not available
- q) Decomposition temperature: data not available
- r) Viscosity: data not available
- s) Explosive properties: data not available
- t) Oxidizing properties: ---

125 mL FIL-EF

- a) Appearance: liquid Color: colorless b) Odor: odorless
- c) Odor Threshold: data not available
- d) pH: 6-7
- e) Melting Point: data not available
- f) Boiling Point: data not available
- g) Flash Point: data not available
- h) Evaporation Rate(ether=1) : data not available
- i) Flammability (solid, gas): data not available
- j) Explosive Limits: data not available
- k) Vapor Pressure (68°F): data not available
- l) Vapor Density(air=1) : data not available
- m) Specific Gravity: 1.06 g/cm³
- n) Soluble in Water: data not available
- o) Partition Coefficient (o-w): data not available
- p) Autoignition Temperature: data not available

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- q) Decomposition temperature: data not available
- r) Viscosity: data not available
- s) Explosive properties: data not available
- t) Oxidizing properties: ---

150 mL LYS-EF

- | | | |
|---------------------------------|-------------------------|-------------------|
| a) Appearance: liquid | Color: blue | b) Odor: odorless |
| c) Odor Threshold: | data not available | |
| d) pH: | 13 | |
| e) Melting Point: | data not available | |
| f) Boiling Point: | data not available | |
| g) Flash Point: | data not available | |
| h) Evaporation Rate(ether=1): | data not available | |
| i) Flammability (solid, gas): | data not available | |
| j) Explosive Limits: | data not available | |
| k) Vapor Pressure (68°F): | data not available | |
| l) Vapor Density(air=1): | data not available | |
| m) Specific Gravity: | 1.008 g/cm ³ | |
| n) Soluble in Water: | data not available | |
| o) Partition Coefficient (o-w): | data not available | |
| p) Autoignition Temperature: | data not available | |
| q) Decomposition temperature: | data not available | |
| r) Viscosity: | data not available | |
| s) Explosive properties: | data not available | |
| t) Oxidizing properties: | --- | |

150 mL NEU-EF

- | | | |
|---------------------------------|------------------------|-----------------|
| a) Appearance: liquid | Color: colorless | b) Odor: acetic |
| c) Odor Threshold: | data not available | |
| d) pH: | 4-5 | |
| e) Melting Point: | data not available | |
| f) Boiling Point: | data not available | |
| g) Flash Point: | 63 °C | |
| h) Evaporation Rate(ether=1): | data not available | |
| i) Flammability (solid, gas): | data not available | |
| j) Explosive Limits: | data not available | |
| k) Vapor Pressure (68°F): | data not available | |
| l) Vapor Density(air=1): | data not available | |
| m) Specific Gravity: | 1.19 g/cm ³ | |
| n) Soluble in Water: | data not available | |
| o) Partition Coefficient (o-w): | data not available | |
| p) Autoignition Temperature: | data not available | |
| q) Decomposition temperature: | data not available | |
| r) Viscosity: | data not available | |
| s) Explosive properties: | data not available | |
| t) Oxidizing properties: | --- | |

150 mL RES-EF

- | | | |
|---------------------------------|------------------------|-------------------|
| a) Appearance: liquid | Color: colorless | b) Odor: odorless |
| c) Odor Threshold: | data not available | |
| d) pH: | 7.5 - 8.5 | |
| e) Melting Point: | data not available | |
| f) Boiling Point: | data not available | |
| g) Flash Point: | data not available | |
| h) Evaporation Rate(ether=1): | data not available | |
| i) Flammability (solid, gas): | data not available | |
| j) Explosive Limits: | data not available | |
| k) Vapor Pressure (68°F): | data not available | |
| l) Vapor Density(air=1): | data not available | |
| m) Specific Gravity: | 1.01 g/cm ³ | |
| n) Soluble in Water: | data not available | |
| o) Partition Coefficient (o-w): | data not available | |
| p) Autoignition Temperature: | data not available | |
| q) Decomposition temperature: | data not available | |
| r) Viscosity: | data not available | |
| s) Explosive properties: | data not available | |
| t) Oxidizing properties: | --- | |

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0.6-100 mg RNase A (lyo)

a)	Appearance: solid (lyoph.)	Color: colorless	b) Odor: odorless
c)	Odor Threshold:	data not available	
d)	pH:	data not available	
e)	Melting Point:	data not available	
f)	Boiling Point:	data not available	
g)	Flash Point:	data not available	
h)	Evaporation Rate _(ether=1) :	data not available	
i)	Flammability (solid, gas):	data not available	
j)	Explosive Limits:	data not available	
k)	Vapor Pressure (68°F):	data not available	
l)	Vapor Density _(air=1) :	data not available	
m)	Specific Gravity:	data not available	
n)	Soluble in Water:	0-100 %	
o)	Partition Coefficient (o-w):	data not available	
p)	Autoignition Temperature:	data not available	
q)	Decomposition temperature:	data not available	
r)	Viscosity:	data not available	
s)	Explosive properties:	data not available	
t)	Oxidizing properties:	---	

30 mL TE-EF

a)	Appearance: liquid	Color: colorless	b) Odor: odorless
c)	Odor Threshold:	data not available	
d)	pH:	7.2-7.7	
e)	Melting Point:	data not available	
f)	Boiling Point:	data not available	
g)	Flash Point:	data not available	
h)	Evaporation Rate _(ether=1) :	data not available	
i)	Flammability (solid, gas):	data not available	
j)	Explosive Limits:	data not available	
k)	Vapor Pressure (68°F):	data not available	
l)	Vapor Density _(air=1) :	data not available	
m)	Specific Gravity:	1.0 g/cm ³	
n)	Soluble in Water:	data not available	
o)	Partition Coefficient (o-w):	data not available	
p)	Autoignition Temperature:	data not available	
q)	Decomposition temperature:	data not available	
r)	Viscosity:	data not available	
s)	Explosive properties:	data not available	
t)	Oxidizing properties:	---	

500 mL WASH-EF

a)	Appearance: liquid	Color: colorless	b) Odor: alcoholic
c)	Odor Threshold:	data not available	
d)	pH:	6-7	
e)	Melting Point:	data not available	
f)	Boiling Point:	data not available	
g)	Flash Point:	39 °C	
h)	Evaporation Rate _(ether=1) :	data not available	
i)	Flammability (solid, gas):	data not available	
j)	Explosive Limits:	data not available	
k)	Vapor Pressure (68°F):	data not available	
l)	Vapor Density _(air=1) :	data not available	
m)	Specific Gravity:	1.04 g/cm ³	
n)	Soluble in Water:	data not available	
o)	Partition Coefficient (o-w):	data not available	
p)	Autoignition Temperature:	data not available	
q)	Decomposition temperature:	data not available	
r)	Viscosity:	data not available	
s)	Explosive properties:	data not available	
t)	Oxidizing properties:	---	

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35 mL H₂ O-EF (for 70% ethanol)

a)	Appearance: liquid	Color: colorless	b) Odor: odorless
c)	Odor Threshold:	data not available	
d)	pH:	6-8	
e)	Melting Point:	data not available	
f)	Boiling Point:	data not available	
g)	Flash Point:	data not available	
h)	Evaporation Rate _(ether=1) :	data not available	
i)	Flammability (solid, gas):	data not available	
j)	Explosive Limits:	data not available	
k)	Vapor Pressure (68°F):	data not available	
l)	Vapor Density _(air=1) :	data not available	
m)	Specific Gravity:	1.0 g/cm ³	
n)	Soluble in Water:	data not available	
o)	Partition Coefficient (o-w):	data not available	
p)	Autoignition Temperature:	data not available	
q)	Decomposition temperature:	data not available	
r)	Viscosity:	data not available	
s)	Explosive properties:	data not available	
t)	Oxidizing properties:	---	

30 mL H₂ O-EF

a)	Appearance: liquid	Color: colorless	b) Odor: odorless
c)	Odor Threshold:	data not available	
d)	pH:	6-8	
e)	Melting Point:	data not available	
f)	Boiling Point:	data not available	
g)	Flash Point:	data not available	
h)	Evaporation Rate _(ether=1) :	data not available	
i)	Flammability (solid, gas):	data not available	
j)	Explosive Limits:	data not available	
k)	Vapor Pressure (68°F):	data not available	
l)	Vapor Density _(air=1) :	data not available	
m)	Specific Gravity:	1.0 g/cm ³	
n)	Soluble in Water:	data not available	
o)	Partition Coefficient (o-w):	data not available	
p)	Autoignition Temperature:	data not available	
q)	Decomposition temperature:	data not available	
r)	Viscosity:	data not available	
s)	Explosive properties:	data not available	
t)	Oxidizing properties:	---	

9.2 Other Information

Data for the other parameters of the mixtures are not available.

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 oxidizing substances. ---

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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 chemicals. Quantitative data on the toxicity of this product are not available.

180 mL ELU-EF

Chemical:	<i>2-propanol</i>	CAS No.:	67-63-0
TSCA Inventory:	listed	California Prop. 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		
Canada CEPA 1999:	DSL yes		
LD50 _{orl rat} :	5045 mg/kg		
LC _{LoWorl hmn} :	3570 mg/kg		
LC50 _{ihl rat} :	164h g/m ³		
LD50 _{drm rbt} :	12.8 g/kg		

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

Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
TSCA Inventory:	all listed, <1%		

1000 mL ENDO-EF

Chemical:	<i>ethanol</i>	CAS No.:	64-17-5d
TSCA Inventory:	listed	California Prop. 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		
Canada CEPA 1999:	DSL yes		
LD50 _{orl rat} :	6200 mg/kg		
LC _{LoWihl gpg} :	21.9 g/m ³		
LC _{LoWorl hmn} :	1400 mg/kg		
LC50 _{ihl mouse} :	[4h] 39 g/m ³		
LC50 _{ihl rat} :	[10h] 20 g/m ³		
LD50 _{drm rbt} :	20 000 mg/kg		
LD50 _{oral mouse} :	3450 mg/kg		

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

Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
TSCA Inventory:	all listed, <1%		

400 mL EQU-EF

Chemical:	<i>ethanol</i>	CAS No.:	64-17-5d
TSCA Inventory:	listed	California Prop. 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		
Canada CEPA 1999:	DSL yes		
LD50 _{orl rat} :	6200 mg/kg		
LC _{LoWihl gpg} :	21.9 g/m ³		
LC _{LoWorl hmn} :	1400 mg/kg		
LC50 _{ihl mouse} :	[4h] 39 g/m ³		
LC50 _{ihl rat} :	[10h] 20 g/m ³		

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LD50_{drm rbt} : 20 000 mg/kg
 LD50_{oral mouse} : 3450 mg/kg

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

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

125 mL FIL-EF

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

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

150 mL LYS-EF

Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2d
 TSCA Inventory: listed California Prop. 65 List: not listed
 Exposure Routes: inhalation, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system
 Symptoms: -
 LD50_{orl rat} : [
 LD50_{orl mus} : [

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3
 TSCA Inventory: listed California Prop. 65 List: not listed
 Canada CEPA 1999: DSL yes
 LD50_{orl rat} : 1288 mg/kg
 LC50_{inh rat} : 3900_{1h} mg/m³
 LD50_{drm rbt} : 10 g/kg

Chemical: *indicator dye(s)* CAS No.: -
 TSCA Inventory: all listed, <1%

150 mL NEU-EF

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

150 mL RES-EF

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

0.6-100 mg RNase A (Iyo)

Chemical: *RNase* CAS No.: 9001-99-4
 TSCA Inventory: listed
 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.

30 mL TE-EF

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

500 mL WASH-EF

Chemical: *ethanol* CAS No.: 64-17-5d
 TSCA Inventory: listed California Prop. 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
 Canada CEPA 1999: DSL yes
 LD50_{orl rat}: 6200 mg/kg
 LC₁₀_{Worl hm}: 21.9 g/m³
 LC₅₀_{ihl mouse}: 1400 mg/kg
 LC₅₀_{ihl rat}: [4h] 39 g/m³
 LC₅₀_{ihl rat}: [10h] 20 g/m³
 LD50_{drm rbt}: 20 000 mg/kg
 LD50_{oral mouse}: 3450 mg/kg

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

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

35 mL H₂ O-EF (for 70% ethanol)

Chemical: *water* CAS No.: 7732-18-5
 TSCA Inventory: listed

30 mL H₂ O-EF

Chemical: *water* CAS No.: 7732-18-5
 TSCA Inventory: listed

Section 12: Ecological Information

12.1 Toxicity

Following information is valid for pure chemicals.

180 mL ELU-EF

Chemical: *2-propanol* CAS No.: 67-63-0
 PNEC_(fresh water): 140.9 mg/L
 PNEC = Predicted No Effected Concentration
 LC50_{fish/96h}: 1400 mg/L
 EC50_{daphnia/48h}: 13.3 g/L
 IC50_{scenedesmus quadricauda/72h}: >1000 mg/L
 EC10_{pseudomonas putita/16h}: EC5: 1050 mg/L
 Partition Coefficient (o-w): 0.05

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

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

1000 mL ENDO-EF

Chemical: *ethanol* CAS No.: 64-17-5d
 PNEC_(fresh water): 0.96 mg/L
 PNEC = Predicted No Effected 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 putita/16h}: [EC5] 6500 mg/L
 Partition Coefficient (o-w): -0.31

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

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

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400 mL EQU-EF

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 putita/16h : [EC5] 6500 mg/L
 Partition Coefficient (o-w): -0.31

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

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

125 mL FIL-EF

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

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

150 mL LYS-EF

Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2d
 LC50leuciscus idus/96h : 35-189 mg/L
 LC50fish/96h : 45.4 mg/L
 EC50daphnia/48h : >100 mg/L

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3

LC50daphnia magna/48h : 6.3 mg/L
 LC50fish/96h : 1.31-22.5 mg/L
 Partition Coefficient (o-w): 1.6

Chemical: *indicator dye(s)* CAS No.: -

150 mL NEU-EF

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

150 mL RES-EF

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

0.6-100 mg RNase A (lyo)

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

30 mL TE-EF

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

500 mL WASH-EF

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 putita/16h : [EC5] 6500 mg/L
 Partition Coefficient (o-w): -0.31

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

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

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35 mL H₂ O-EF (for 70% ethanol)
 Chemical: *water* CAS No.: 7732-18-5

30 mL H₂ O-EF
 Chemical: *water* CAS No.: 7732-18-5

- 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 (RCRA Code D002/D003, EU 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/NA: 1993	14.2. Proper Shipping Name: Flammable liquid, n.o.s. (2-propanol mixture)
14.3. Hazard Class: 3	14.4. Packing Group: III
<i>Transportation by Road</i>	
Classification code: F1	Tunnel restriction code: E
Limited Quantity: 5 L	Special instructions: 640E
Excepted Quantity: E 1	
<i>Air Transportation</i>	
PAX: 355	max. weight PAX: 60 L
CAO: 366	max. weight CAO: 220 L
<i>Maritime Transport</i>	
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**
 - U.S. Federal Regulations**
 OSHA "A Guide to The Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"
<https://www.osha.gov/dsg/hazcom/ghs.html>
 29 CFR 1910.1200 Hazard communication.
 NIOSH Pocket Guide to Chemical Hazards
 NIOSH Workplace Safety & Health Topics
 TSCA Inventory
 - U.S. State Regulations**
 California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
 - Canada**
 Canada CEPA 1999 - Domestic Substances List (DSL), List of Toxic Substances (Schedule 1)

Safety Data Sheet

SDS acc. Hazard Communication Standard

REF: 740426.10

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MN Leaflet/User manual, also see www.mn-net.com

15.2 Chemical Safety Assessment

not necessary for these small amounts ---

Section 16: Other Information

16.1 List of Hazard and Precaution Phrases

16.1.1 List of relevant H Phrases

H226	Flammable liquid and vapor.
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/vapors.
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!

Look about employee restrictions for pregnant women and nursing women!

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

16.4 Further Information

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

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16.5 Sources of Key Data

GHS: EU Regulation 1272/2008/EC on Classification, Labelling and Packaging of Substances and Mixtures, amending and repealing EU Directives 67/548/EEC and 1999/45/EC, and amending EU Regulation 1907/2006/EC

SDS: EU Regulation 453/2010/EU REACH - Requirements for the Compilation of Safety Data Sheets

EU-Directive 1999/92/EC Minimum Requirements for Improving the Safety and Health Protection of Workers at Risk from potentially Explosive Atmospheres

KÜHN, BIRETT (German), Data Sheets of Hazardous Substances

Revisions/Updates

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

You find our current Versions of SDS in Internet:

<http://www.mn-net.com/SDS> [U.S. English]