

# Safety Data Sheet

## SDS acc. Hazard Communication Standard

REF: 740490.250  
 Printing Date: 04.04.2023

NucleoSpin Plasmid Transf.-grade (250)  
 Date of Issue: 03.03.2023

Page: 1/16  
 Version: 2.2.4.9

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

### 1.1 Product Identifier / Product Name

REF	740490.250	
Product Name	NucleoSpin Plasmid Transf.-grade (250)	
1 x 100 mL A3		UFI: PFPT-53NJ-8206-5YNH
1 x 60 mL AE		
1 x 75 mL A1		
2 x 25 mL AQ		
1 x 25-100 mg RNase A (lyo)		UFI: WWJV-U3PV-U207-MFGF
1 x 200 mL ERB		UFI: E4FW-93GQ-X203-AP6W
1 x 100 mL A2 (with LyseControl)		UFI: W24W-23R9-3206-XR1C

### 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 and of the Safety Data Sheet

#### Manufactured by:

MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11, 52355 Düren, Germany  
 Phone: +49 2421 969 0

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

### 1.4 Emergency Telephone Number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.

USA: American Association Of Poison Control Centers

Rockville, MD 20857. tel. 1-800-222-1222, <<https://www.poisonhelp.org>>

DE: Gemeinsames Giftinformationszentrum (GGIZ)

99089 Erfurt tel. +49 361 730 730

<<https://www.ggiz-erfurt.de>>

You find our current versions of SDS in Internet:

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

## SECTION 2: Hazard(s) Identification

### 2.0 Classification of the complete Product



Signal Word

DANGER

#### Hazard Identification

#### Hazard Classes/Categories

H226	Flam. Liq. 3
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H334	Resp. Sens. 1
H336	STOT SE 3

### 2.1 Classification of the substance or mixture

200 mL ERB



MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
 CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
 FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
 US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

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GHS02



GHS07

Signal Word **WARNING**

Hazard Identification	Hazard Classes/Categories
H226	Flam. Liq. 3
H319	Eye Irrit. 2
H336	STOT SE 3

### 100 mL A2 (with LyseControl)



GHS07

Signal Word **WARNING**

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

### 100 mL A3



GHS07

Signal Word **WARNING**

Hazard Identification	Hazard Classes/Categories
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2

### 25-100 mg RNase A (Iyo)



GHS08

Signal Word **DANGER**

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

### 25 mL AQ

Signal Word Do not need labelling as hazardous  
 -

No Hazard Class



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 Valencienner Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 info@mn-net.com  
 CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
 FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
 US Tel.: +1 888 321 62 24 sales-us@mn-net.com

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### 75 mL A1

Signal Word: Do not need labelling as hazardous  
 -  
 No Hazard Class

### 60 mL AE

Signal Word: Do not need labelling as hazardous  
 -  
 No Hazard Class

List of H phrases: see section 16.2

## 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.

### 200 mL ERB



Signal Word: WARNING  
 H226, H319, H336  
 Flammable liquid and vapor. Causes serious eye irritation. May cause drowsiness or dizziness.  
 P210, P260D, P280sh  
 Do not breathe vapors. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/eye protection.

### 100 mL A2 (with LyseControl)



Signal Word: WARNING

### 100 mL A3



Signal Word: WARNING

### 25-100 mg RNase A (Iyo)



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.

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**25 mL AQ**  
Do not need labelling as hazardous  
Signal Word: -

**75 mL A1**  
Do not need labelling as hazardous  
Signal Word: -

**60 mL AE**  
Do not need labelling as hazardous  
Signal Word: -

### Label elements of the complete product



Signal Word: DANGER  
H226, H319, H334, H336  
Flammable liquid and vapor. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness.  
P210, P260D, P280sh, P342+311  
Do not breathe vapors. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/eye protection. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

### 2.3 Other Hazards

#### Possible Hazards from physicochemical Properties

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

#### Information pertaining to particular Risks to Human and possible Symptoms

Cause after oral intake, impairments of health when ingested in small quantities. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness.  
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

#### Possible endocrine disrupting effects

data not available

## SECTION 3: Composition/Information on Ingredients

### 3.1 Substances or 3.2 Mixtures

#### 25-100 mg RNase A (Iyo)

Substance name: *RNase*  
CAS No.: 9001-99-4  
  
Substance rating: H334, Resp. Sens. 1  
Chemical Formula: Enzyme Comm. No. 3.1.27.5, origin: bovine pancreas (controlled population)  
Synonyms (de): RNase A  
EC No.: 232-646-6  
Concentration: 90 - <100 %  
acc. GHS: H334, Resp. Sens. 1

#### 75 mL A1

Substance name: *chemicals/mixture until 1%*  
CAS No.: -  
  
Substance rating: No criteria for classification or naming of chemical is not required.  
Concentration: 0,1 - <1 %  
acc. GHS: The criteria for classification are not fulfilled.



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### 60 mL AE

Substance name: *chemicals/mixture until 1%*  
 CAS No.: -

Substance rating: No criteria for classification or naming of chemical is not required.  
 Concentration: 0,1 - <1 %  
 acc. GHS: The criteria for classification are not fulfilled.

### 100 mL A3

Substance name: *guanidine hydrochloride*  
 CAS No.: 50-01-1

Substance rating: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2  
 Chemical Formula: CH<sub>6</sub> CIN<sub>3</sub>  
 Synonyms (de): Guanidiniumchlorid  
 REACH Reg. No.: 01-2119977063-35-0005  
 EC No.: 200-002-3  
 Concentration: 36 - <50 %  
 acc. GHS: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

Indice No.: 607-148-00-0

### 200 mL ERB

Substance name: *triethanolamine*  
 CAS No.: 102-71-6

Substance rating: H315, Skin Irrit. 2, H319, Eye Irrit. 2  
 Chemical Formula: C<sub>6</sub> H<sub>15</sub> NO<sub>3</sub>  
 Synonyms (de): 2,2',2"-Nitrilotriethanol, TEA, Tris(2-hydroxyethyl)amin  
 REACH Reg. No.: 01-2119486482-31-xxxx

**Dual-use:** The application of this chemical is exempt from the regulation 2017/2268/EU (see IC350 remark 4).

EC No.: 203-049-8  
 Concentration: 1 - <10 %  
 acc. GHS: The criteria for classification are not fulfilled.

Substance name: *2-propanol*  
 CAS No.: 67-63-0

Substance rating: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3  
 Chemical Formula: C<sub>3</sub> H<sub>8</sub> O  
 Synonyms (de): Isopropanol, IPA, Propan-2-ol  
 REACH Reg. No.: 01-2119457558-25-XXXX  
 EC No.: 200-661-7  
 Concentration: 35 - <50 %  
 acc. GHS: H226, Flam. Liq. 3, H319, Eye Irrit. 2, H336, STOT SE 3

Indice No.: 603-117-00-0

### 100 mL A2 (with LyseControl)

Substance name: *sodium hydroxide solution*  
 CAS No.: 1310-73-2

Substance rating: H314, Skin Corr. 1A  
 Chemical Formula: NaOH·H<sub>2</sub>O  
 Synonyms (de): verdünnte Natronlauge  
 REACH Reg. No.: 01-2119457892-27-xxxx  
 EC No.: 215-185-5  
 Concentration: 0,5 - <1 %  
 acc. GHS: H315, Skin Irrit. 2, H319, Eye Irrit. 2

Indice No.: 011-002-00-6

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

Substance rating: 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<sub>12</sub> H<sub>25</sub> NaO<sub>4</sub> S  
 Synonyms (de): Natriumlaurylsulfat  
 REACH Reg. No.: 01-2119489461-32-xxxx  
 EC No.: 205-788-1  
 Concentration: 0,1 - <1 %  
 acc. GHS: The criteria for classification are not fulfilled.



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### 25 mL AQ

Substance name: *inorganic salts, declaration not necessary*  
CAS No.: -

Substance rating: No criteria for classification or naming of chemical is not required.  
Synonyms (de): kein Gefahrstoff  
Concentration: 1 - <3 %  
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 16.2.

## 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 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 should be drunk after it has been ingested.

### 4.2 Most important Symptoms and Effects, both acute and delayed

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Chronic effects: Repeated contact, even in small amounts, can lead to sensitization.  
Causes serious eye irritation.

### 4.3 Indication of any immediate Medical Attention and Special Treatment needed

After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive substance. Further treatment must 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

#### 5.1.1 Suitable 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.

#### 5.1.2 Unsuitable extinguishing media

data not available

### 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.

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### 5.4 Additional Information

## SECTION 6: Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedure

Do not breathe vapors. 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

PBT: not applicable  
 vPvB: not applicable

### 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

## 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 allows a safe storage. Storage class (German chemical industry): see chapter 12.1

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

#### 25-100 mg RNase A (Iyo)

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

#### 75 mL A1

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

#### 60 mL AE

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

#### 100 mL A3

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

DNEL: [inh] 3.5 mg/m<sup>3</sup>  
 DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): -  
 PNEC = Predicted No Effect Concentration

NIOSH: not listed  
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: not listed

#### 200 mL ERB

Chemical: *triethanolamine* CAS No.: 102-71-6

DNEL: [derm] 6.3; [inh] 5 mg/m<sup>3</sup>  
 DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): 0.32 mg/L  
 PNEC = Predicted No Effect Concentration



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NIOSH: not listed  
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: not listed

Chemical: *2-propanol* CAS No.: 67-63-0

DNEL: [inh] 500 mg/m<sup>3</sup>  
 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/m<sup>3</sup>  
 NIOSH STEL: 500 ppm / 1225 mg/m<sup>3</sup>  
 [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/m<sup>3</sup>

### 100 mL A2 (with LyseControl)

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

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

### 25 mL AQ

Chemical: *inorganic salts, declaration not necessary* 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 vapor/dust respirator, class A/AX. No additional recommendations.

### 8.2.2 Skin protection / 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.

### 8.2.6 Thermal hazards

data not available

## 8.3 Limitation and monitoring of environmental exposure

Do not release product into environment.

# SECTION 9: Physical and Chemical Properties

## 9.1 Information on Basic Physical and Chemical Properties

### 25-100 mg RNase A (Iyo)

a) State of aggregation:	solid (lyophilized)
b) Color:	colorless
c) Odor:	odorless
d) Melting Point:	data not available
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	data not available
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available





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k) pH Value:	data not available
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	0-100 %
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	data not available
p) Specific Gravity:	data not available
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

### 75 mL A1

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	odorless
d) Melting Point:	data not available
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	data not available
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	7.5-8.5
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	data not available
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	data not available
p) Specific Gravity:	1.00 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

### 60 mL AE

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	odorless
d) Melting Point:	0 °C
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	data not available
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	8-9
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	data not available
n) Partition Coefficient (o/w) :	data not available
o) Vapor Pressure (68°F):	data not available
p) Specific Gravity:	1.0 g/cm <sup>3</sup>
q) Relative Vapor Density (air=1) :	data not available
r) Particle Size:	data not available

### 100 mL A3

a) State of aggregation:	liquid
b) Color:	colorless
c) Odor:	acetic
d) Melting Point:	data not available
e) Boiling Point:	data not available
f) Flammability:	data not available
g) Explosive Limits (lower / upper):	data not available
h) Flash Point:	data not available
i) Autoignition Temperature:	data not available
j) Decomposition Temperature:	data not available
k) pH Value:	4-4.5
l) Kinematic Viscosity:	data not available
m) Soluble in Water:	data not available
n) Partition Coefficient (o/w) :	data not available



MACHEREY-NAGEL GmbH & Co. KG  
 Valenciennes Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 info@mn-net.com  
 CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
 FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
 US Tel.: +1 888 321 62 24 sales-us@mn-net.com

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o) Vapor Pressure (68°F): data not available  
 p) Specific Gravity: 1.14 g/cm<sup>3</sup>  
 q) Relative Vapor Density (air=1): data not available  
 r) Particle Size: data not available

### 200 mL ERB

a) State of aggregation: liquid  
 b) Color: colorless  
 c) Odor: alcoholic  
 d) Melting Point: data not available  
 e) Boiling Point: data not available  
 f) Flammability: data not available  
 g) Explosive Limits (lower / upper): data not available  
 h) Flash Point: 24 °C  
 i) Autoignition Temperature: data not available  
 j) Decomposition Temperature: data not available  
 k) pH Value: 5.5-6.5  
 l) Kinematic Viscosity: data not available  
 m) Soluble in Water: 0-100 %  
 n) Partition Coefficient (o/w): data not available  
 o) Vapor Pressure (68°F): data not available  
 p) Specific Gravity: 0.94 g/cm<sup>3</sup>  
 q) Relative Vapor Density (air=1): data not available  
 r) Particle Size: data not available

### 100 mL A2 (with LyseControl)

a) State of aggregation: liquid  
 b) Color: blue  
 c) Odor: odorless  
 d) Melting Point: data not available  
 e) Boiling Point: data not available  
 f) Flammability: data not available  
 g) Explosive Limits (lower / upper): data not available  
 h) Flash Point: data not available  
 i) Autoignition Temperature: data not available  
 j) Decomposition Temperature: data not available  
 k) pH Value: 13  
 l) Kinematic Viscosity: data not available  
 m) Soluble in Water: data not available  
 n) Partition Coefficient (o/w): data not available  
 o) Vapor Pressure (68°F): data not available  
 p) Specific Gravity: 1.008 g/cm<sup>3</sup>  
 q) Relative Vapor Density (air=1): data not available  
 r) Particle Size: data not available

### 25 mL AQ

a) State of aggregation: liquid  
 b) Color: colorless  
 c) Odor: odorless  
 d) Melting Point: data not available  
 e) Boiling Point: data not available  
 f) Flammability: data not available  
 g) Explosive Limits (lower / upper): data not available  
 h) Flash Point: data not available  
 i) Autoignition Temperature: data not available  
 j) Decomposition Temperature: data not available  
 k) pH Value: 7.5-8  
 l) Kinematic Viscosity: data not available  
 m) Soluble in Water: data not available  
 n) Partition Coefficient (o/w): data not available  
 o) Vapor Pressure (68°F): data not available  
 p) Specific Gravity: 1.01 g/cm<sup>3</sup>  
 q) Relative Vapor Density (air=1): data not available  
 r) Particle Size: data not available



MACHEREY-NAGEL GmbH & Co. KG  
 Valenciener Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 info@mn-net.com  
 CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
 FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
 US Tel.: +1 888 321 62 24 sales-us@mn-net.com

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## SDS acc. Hazard Communication Standard

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### 9.2 Further Information

No data is available for the other parameters for the mixtures, since no registration and no chemical safety report is required.  
**Properties relevant to substance groups**

## 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. Can form very reactive substances with oxidizing agents. No further data available.

### 10.4 Conditions to avoid

But formation of explosive gases/vapours with air is possible. Use only in well ventilated rooms. No more required.

### 10.5 Incompatible Materials

Avoid storage with oxidizing 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 chemicals. Quantitative data on the toxicity of this product are not available.

#### 25-100 mg RNase A (Iyo)

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

TSCA Inventory: listed

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.

#### 75 mL A1

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

TSCA Inventory: all listed, <1%

#### 60 mL AE

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

TSCA Inventory: all listed, <1%

#### 100 mL A3

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

TSCA Inventory: listed California Prop. 65 List: not listed

Canada CEPA 1999: DSL yes

LD50 orl rat : 475-907 mg/kg

LC50 ihl rat : 3181-7655 µg/m<sup>3</sup>/4H

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

#### 200 mL ERB

Chemical: *triethanolamine* CAS No.: 102-71-6

TSCA Inventory: listed California Prop. 65 List: not listed

Canada CEPA 1999: DSL Yes

LD50 orl rat : > 5000 mg/kg



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Chemical: *2-propanol* 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<sub>50</sub> orl hmn : 3570 mg/kg  
 LC50 ihl rat : 25 mg/L/4H

**100 mL A2 (with LyseControl)**  
 Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2  
 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 ihl rat : 3,900 mg/L/1H

**25 mL AQ**  
 Chemical: *inorganic salts, declaration not necessary* CAS No.: -  
 TSCA Inventory: all listed

### 11.2 Other Hazards

**Possible endocrine disrupting effects**

data not available

**Other Information**

no additional data available

## SECTION 12: Ecological Information

### 12.1 Toxicity

Following information is valid for pure chemicals.

**25-100 mg RNase A (Iyo)**  
 Chemical: *RNase* CAS No.: 9001-99-4

**75 mL A1**  
 Chemical: *chemicals/mixture until 1%* CAS No.: -

**60 mL AE**  
 Chemical: *chemicals/mixture until 1%* CAS No.: -

**100 mL A3**  
 Chemical: *guanidine hydrochloride* CAS No.: 50-01-1  
 PNEC (fresh water) : -  
 PNEC = Predicted No Effect Concentration  
 LC50 leuciscus idus/96h : 1759 mg/L  
 LC50 fish/96h : [4d] 690-1850; [48h] 1758-2420 mg/L  
 EC50 daphnia/48h : 70.2 mg/L  
 EC10 pseudomonas putita/16h : [72h] 11.8-33.5 mg/L

**200 mL ERB**  
 Chemical: *triethanolamine* CAS No.: 102-71-6  
 PNEC (fresh water) : 0.32 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50 fish/96h : >1000 mg/L



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EC50 daphnia/48h : >1000 24h mg/L  
 Partition Coefficient (o/w) : -2,3

Chemical: *2-propanol* CAS No.: 67-63-0  
 PNEC (fresh water) : 140.9 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50 fish/96h : 1400 mg/L  
 EC50 daphnia/48h : 13.3 g/L  
 IC50 scenedesmus quadricauda/72h : >1000 mg/L  
 EC10 pseudomonas putita/16h : EC5: 1050 mg/L  
 Partition Coefficient (o/w) : 0,05

**100 mL A2 (with LyseControl)**  
 Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2  
 LC50 leuciscus idus/96h : 35-189 mg/L  
 LC50 fish/96h : 45.4 mg/L  
 EC50 daphnia/48h : >100 mg/L

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3  
 LC50 daphnia magna/48h : 6.3 mg/L  
 LC50 fish/96h : 1.31-22.5 mg/L  
 Partition Coefficient (o/w) : 1,6

**25 mL AQ**  
 Chemical: *inorganic salts, declaration not necessary* 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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

### 12.6 Endocrine disrupting properties

data not available

### 12.7 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. -14.4. Not necessary

### 14.5 Environmental Hazards

none, contains only small quantities of hazardous substances

### 14.6 Special Precautions for User

not necessary



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### 14.7 Carriage of bulk cargo by sea in accordance with IMO instruments

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)

MN Leaflet/User manual, also see [www.mn-net.com](http://www.mn-net.com)

### 15.2 Chemical Safety Assessment

not necessary for these small amounts

## SECTION 16: Other Information

### 16.1 Changes compared to the last version

Between versions 2.2.4.9 and 2.2.2.2 following changes were applied: - 2 composition data corrected - 7 substance data corrected

### 16.2 List of Hazard and Precaution Phrases

#### 16.2.1 List of relevant H Phrases

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.

#### 16.2.2 List of relevant P Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260D	Do not breathe vapors.
P280sh	Wear protective gloves/eye protection.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

### 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 Sources of Key Data

KÜHN, BIRETT, Leaflets on hazardous materials, 2021

Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres

SUVA .CH, limit values in the air at work 2009, revised on 01/2009

Regulation 790/2009/EU, adaptation of Regulation 1272/2008/EU to technical and scientific progress (1st ATP)

Regulation 453/2010/EU, adaptation of the REACH regulation 1907/2006/EG

TRGS 907, German technical rules for listing substances and causes of sensitization, updated November 2011

Regulation 487/2013/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (4th ATP)

Regulation 1221/2015/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (7th ATP)

Regulation 776/2017/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (10th ATP)

Regulation 669/2018/EU, adaptation of Regulation 1272/2008/EC to technical and scientific progress (11th ATP)

Regulation 1480/2018/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (13th ATP)

Regulation 521/2019/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (12th ATP)

TRGS 900, German rules of technology on limit values in the air at work, as of 03/2019

Regulation 217/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (14th ATP)

Regulation 878/2020/EU, adaptation of Annex II of the REACH regulation 1907/2006/EG

Regulation 1182/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (15th ATP)



MACHEREY-NAGEL GmbH & Co. KG  
Valencienner Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

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Regulation 643/2021/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (16th ATP)  
 Regulation 849/2021/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (17th ATP)

**revisions/updates**

*Reason for revision:* 2014-02 Corrected structure of the sections according to Regulation 453/2010/EU, if necessary  
 2014-04 adjustment according Regulation 487/2013/EU  
 2016-03 adjustment according Regulation 1221/2015/EU  
  
 2017-11 adjustment according the ECHA registration dossier  
 2022-11 adjustment according Regulation 878/2020/EU

### 16.5 Further Information

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### 16.6 Legend / Abbreviations

- acc: according
- ADR: Convention concerning the International Carriage of Dangerous Goods by Road
- Act: acute
- BAT: biological workplace tolerance value
- CAO: Cargo Aircraft Only
- Carc: carcinogen
- CAS: Chemical Abstracts Service
- CLP: Classification, Labelling and Packaging regulation
- CMR: carcinogen, mutagen, reproduction toxic
- Corr: corrosive
- COD: chemical oxygen demand
- CSCL: Chemical Substance Control Law (Jp)
- Dam: damage
- DNEL: Derived No-Effect Level (for workers)
- derm: dermal
- dog: dog
- EC10: Concentration causing a toxic effect in 10% of the test organisms
- EC: European Community
- EC-Nr: Substance number of the EC substance inventory
- EmS: Guide to accident management measures on ships
- EU: European Union
- fish: fish (not specified)
- GHS: Global Harmonized System of Classification and Labeling of Chemicals
- gpg: guinea pig
- ICAO: International Civil Aviation Organization
- ihl: inhaled
- IMDG: International Maritime Dangerous Goods Code
- intrav: intravenous
- ipt: intraperitoneal
- ISHL: Industrial Safety and Health Law (Jp)
- LC50: letale concentration 50%
- LD50: letale dosis 50%
- leuciscus idus: fisch, ide, orfe
- MAK: maximum workplace concentration
- Met: Metall
- mus: mouse
- Muta: mutagen
- NIOSH: National Institute for Occupational Safety and Health (US)
- NRD: Non-rapidly degradable
- onchorhynchus mykiss: fisch, rainbow trout
- orl: oral
- OSHA: Occupational Safety and Health Administration
- PAX: transport on passenger planes allowed
- PBT: persistent, bioaccumulating, toxic substance
- pH: pH value
- pimephales promelas: fisch, fathead minnow



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 Valenciener Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

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PNEC:	Predicted No Effect Concentration
PROC 15:	Process category 'for laboratory use'
PRTR:	Law for PRTR and Promotion of Chemical Management (Jp)
PVC:	polyvinyl chloride
quail:	bird, quail
rat:	rat
rbt:	rabbit
RD:	rapidly degradable
RE:	repeated
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
REF:	item number, reference number
Reg.No.:	rRegistration number
Repr:	harmful to reproduction
Resp:	respiratory
scu:	sub cutan
RIP:	REACH Implementations Projects
SDS:	safety data sheet
Sens:	sensitisation
STEL:	short term exposure limit
STOT:	Specific Target Organ Toxicity
SVHC:	Substance of Very High Concern
t/a:	tons per year
TCCA:	Toxic Chemicals Control Act (S. Korea)
Tox:	toxic
TSCA:	The Toxic Substances Control Act (US)
TWA:	time weighted average
TRGS:	technical regulations (DE)
vPvB:	very persistent, very bioaccumulating substance

### 16.7 Training Advice

Regular safety training. 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.

