

Safety Data Sheet

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

REF: 740945.250
Printing date: 15.11.2021

NucleoSpin Food (250)
Date of issue: 21.09.2020

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

1.1 Product identifier

REF 740945.250
Product name NucleoSpin Food (250)

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 150 mL C4
1 x 50 mL C5
1 x 60 mL CE
1 x 300 mL CF
1 x 125 mL CQW
1 x 8 mL PB
1 x 1-75 mg Proteinase K (lyo)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Product for analytical use.

Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0

The exposure scenario is integrated into sections 1-16.

Uses advised against

not described

1.3 Details of the supplier of the safety data sheet

Manufactured by:

MACHEREY-NAGEL GmbH & Co. KG
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
H302
H315
H319
H334

Hazard classes/categories

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

2.1 Classification of the substance or mixture

150 mL C4

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GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H302
H319

Acute Tox. 4 oral
Eye Irrit. 2

50 mL C5

Signal word

Do not need labelling as hazardous
-

No hazard class

60 mL CE

Signal word

Do not need labelling as hazardous
-

No hazard class

300 mL CF

Signal word

Do not need labelling as hazardous
-

No hazard class

125 mL CQW



GHS02



GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226
H302

Flam. Liq. 3
Acute Tox. 4 oral

8 mL PB

Signal word

Do not need labelling as hazardous
-

No hazard class

1-75 mg Proteinase K (Iyo)



GHS07



GHS08

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Signal word	DANGER
Hazard identification	Hazard classes/categories
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H334	Resp. Sens. 1

2.2 Label elements

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

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

150 mL C4



GHS07

Signal word: WARNING

H302, H319
Harmful if swallowed. Causes serious eye irritation.

P264W, P280sh, P301+312, P330
Wash with water thoroughly after handling. Wear protective gloves/eye protection. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

50 mL C5

Do not need labelling as hazardous
Signal word: -

60 mL CE

Do not need labelling as hazardous
Signal word: -

300 mL CF

Do not need labelling as hazardous
Signal word: -

125 mL CQW



GHS02



GHS07

Signal word: WARNING

8 mL PB

Do not need labelling as hazardous
Signal word: -

1-75 mg Proteinase K (Iyo)



GHS07



GHS08

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Signal word: DANGER

H334

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

P261sh, P342+311

Avoid breathing dust/vapours. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

2.3 Other hazards

Possible hazards from physicochemical properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. ---

Information pertaining to particular risks to human and possible symptoms

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

Kit contains small amounts of enzymes: May cause allergy or asthma symptoms or breathing difficulties if inhaled. -

Information pertaining to particular risks to the environment

PBT: not applicable

vPvB: not applicable

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

150 mL C4

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: CH_6ClN_3
Pseudonym: guanidinium chloride
TSCA Inventory: listed
REACH Reg. No.: 01-2119977063-35-0005
EC No.: 200-002-3
RTECS: MF4300000
KE No.: KE-18111
Concentration: 36 - <50 %
acc. CLP (GHS): H302, Acute Tox. 4 oral, H319, Eye Irrit. 2

Indice No.: 607-148-00-0
MFCD: 00013026

Chemical: *polyoxyethylene sorbitan monolaurate (Tween® 20)* CAS No.: 9005-64-5
Classification: No criteria for classification or naming of chemical not required.
Formula: $\text{C}_{58}\text{H}_{114}\text{O}_{26}$
Pseudonym: Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.
TSCA Inventory: listed
RTECS: TR7400000
KE No.: KE-31681
Concentration: 10 - <20 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

MFCD: 00165986

50 mL C5

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.: -

60 mL CE

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.: -

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300 mL CF

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3
Classification: H228, Flam. Sol. 1, H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H318, Eye Dam. 1, H332, Acute Tox. 4 inh., H335, STOT SE 3, H412, Aquatic Chronic 3
Formula: $C_{12}H_{25}NaO_4S$
Pseudonym: sodium lauryl sulfate, sulfuric acid monododecyl ester sodium salt
TSCA Inventory: listed
REACH Reg. No.: 01-2119489461-32-xxxx
EC No.: 205-788-1
RTECS: WT1050000 MFCD: 00036175
KE No.: KE-21884
Concentration: 1 - <2.5 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *chemicals/mixture < 2%* CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
TSCA Inventory: all listed, <2%
KE No.: listed
Concentration: 1 - <2 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

125 mL CQW

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: CH_6ClN_3
Pseudonym: guanidinium chloride
TSCA Inventory: listed
REACH Reg. No.: 01-2119977063-35-0005
EC No.: 200-002-3 Indice No.: 607-148-00-0
RTECS: MF4300000 MFCD: 00013026
KE No.: KE-18111
Concentration: 24 - <36 %
acc. CLP (GHS): H302, Acute Tox. 4 oral

Chemical: *ethanol* CAS No.: 64-17-5
(denatured with 1%IPA/1%MEK, acc.2016/1867/EU)
Classification: H225, Flam. Liq. 2
Formula: C_2H_6O ; C_2H_5OH
Pseudonym: ethyl alcohol, methylated spirit
TSCA Inventory: listed
REACH Reg. No.: 01-2119457610-43-xxxx
EC No.: 200-578-6 Indice No.: 603-002-00-5
RTECS: KQ6300000 MFCD: 00003568
KE No.: KE-13217
Concentration: 35 - <55 %
acc. CLP (GHS): H226, Flam. Liq. 3

8 mL PB

Chemical: *glycerole* CAS No.: 56-81-5
Classification: No criteria for classification or naming of chemical not required.
Formula: $C_3H_8O_3$
Pseudonym: glycerin, 1,2,3-propanetriol
TSCA Inventory: listed (1,2,3-Propanetriol)
REACH Reg. No.: 01-2119471987-18-xxxx
EC No.: 200-289-5 Indice No.: n/a
RTECS: MA8050000 MFCD: 00004722
KE No.: KE-29297
Concentration: 10 - <50 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

1-75 mg Proteinase K (Iyo)

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Chemical:	<i>proteinase K (origin: tritirachium album)</i>		CAS No.:	39450-01-6
Classification:	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H334, Resp. Sens. 1			
Formula:	Enzyme Comm. No. 3.4.21.64, origin: tritirachium album			
TSCA Inventory:	listed (CAS 102925-54-2)			
EC No.:	254-457-8	Indice No.:	647-014-00-9	
RTECS:	-	MFCD:	00132129	
KE No.:	not listed			
Concentration:	90 - <100 %			
acc. CLP (GHS):	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H334, Resp. Sens. 1			

3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%.

List of H and P phrases: see section 16.1

SECTION 4: First aid measures

4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice. Take to a doctor, in a raised position if there are breathing difficulties.

4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open 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. ---

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 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. Product package burns like paper or plastic. 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. ---

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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. 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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

150 mL C4

Chemical: *guanidine hydrochloride*
DNEL: [inh] 3.5 mg/m³
DNEL = Derived No-Effect Level (for workers)

CAS No.: 50-01-1

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

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

OSHA: not listed

Chemical: *polyoxyethylene sorbitan monolaurate (Tween® 20)*

CAS No.: 9005-64-5

50 mL C5

Chemical: *chemicals/mixture < 1%*

CAS No.: -

60 mL CE

Chemical: *chemicals/mixture < 1%*

CAS No.: -

300 mL CF

Chemical: *dodecyl sulfate, sodium salt*
NIOSH: not listed

CAS No.: 151-21-3

[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: *chemicals/mixture < 2%*

CAS No.: -

125 mL CQW

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Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
DNEL: [inh] 3.5 mg/m³
DNEL = Derived No-Effect Level (for workers)
PNEC_(fresh water): -
PNEC = Predicted No Effect Concentration
NIOSH: not listed
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period
OSHA: not listed

Chemical: *ethanol* CAS No.: 64-17-5
DNEL: [derm] 343 mg/kg; [inh] 950 mg/m³
DNEL = Derived No-Effect Level (for workers)
PNEC_(fresh water): 0.96 mg/L
PNEC = Predicted No Effect Concentration
TRGS 900 (DE): 200 mL/m³ / 380 mg/m³
E/e respirable
Short-term exposure factor: 4 (II), Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded
SUVA(CH) MAK value: 500 ppm / 960 mg/m³
NIOSH: [TWA] 1000 ppm / 1900 mg/m³
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period
OSHA: [TWA] 1000 ppm / 1900 mg/m³

8 mL PB
Chemical: *glycerole* CAS No.: 56-81-5
DNEL: [inh] 56 mg/m³
DNEL = Derived No-Effect Level (for workers)
PNEC_(fresh water): 0.885 mg/L
PNEC = Predicted No Effect Concentration
TRGS 900 (DE): 200 E mg/m³
E/e respirable
Short-term exposure factor: 2 (I), Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded
SUVA(CH) MAK value: 50 e* mg/m³

1-75 mg Proteinase K (Iyo)
Chemical: *proteinase K (origin: tritirachium album)* CAS No.: 39450-01-6
SUVA(CH) MAK value: 0,00006_{15min} mg/m³

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

150 mL C4

Appearance: liquid

Colour: slightly yellow

Odor: odorless

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pH:	3.5-4	
Specific gravity:	1.15 g/cm ³	
50 mL C5		
Appearance: liquid	Colour: colourless	Odor: odorless
pH:	7-8	
Specific gravity:	1.00 g/cm ³	
60 mL CE		
Appearance: liquid	Colour: colourless	Odor: odorless
pH:	8-9	
Specific gravity:	1.0 g/cm ³	
300 mL CF		
Appearance: liquid	Colour: colourless	Odor: odorless
pH:	7.5-8.5	
Specific gravity:	1.02 g/cm ³	
125 mL CQW		
Appearance: liquid	Colour: colourless	Odor: alcoholic
pH:	5-7	
Flash point:	26 °C	
Specific gravity:	1.0 g/cm ³	
8 mL PB		
Appearance: liquid	Colour: colourless	Odor: alcoholic
Specific gravity:	1.11 g/cm ³	
1-75 mg Proteinase K (Iyo)		
Appearance: solid (Iyoph.)	Colour: slightly grey	Odor: odorless

9.2 Other information

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

Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

no further data available.

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Not necessary. ---

10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

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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.

150 mL C4

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
TSCA Inventory: listed California Proposition 65 List: not listed
Australia NICNAS: not listed Canada CEPA 1999: DSL yes
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: not listed
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-18111
LD50_{orl rat}: 475-907 mg/kg
LC50_{ihl rat}: [4h] 3181-7655 µg/m³
LD50_{drm rbt}: 2000 mg/kg
Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

Chemical: *polyoxyethylene sorbitan monolaurate (Tween® 20)* CAS No.: 9005-64-5
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-31681

50 mL C5

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

60 mL CE

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

300 mL CF

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

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

125 mL CQW

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
TSCA Inventory: listed California Proposition 65 List: not listed
Australia NICNAS: not listed Canada CEPA 1999: DSL yes
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: not listed
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-18111
LD50_{orl rat}: 475-907 mg/kg
LC50_{ihl rat}: [4h] 3181-7655 µg/m³
LD50_{drm rbt}: 2000 mg/kg
Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

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

8 mL PB

Chemical: *glycerole* CAS No.: 56-81-5
TSCA Inventory: listed (1,2,3-Propanetriol)
Exposure Routes: inhalation, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, kidneys
Symptoms: irritation eyes, skin, respiratory system; headache, nausea, vomiting; kidney injury
Japan CSCL/PRTR: not listed, Japan PDSC: not listed
Japan ISHL: not listed
Korea Exist.Chem.Inventory: KE-29297
LD50_{orl rat}: 12.6 g/kg
LD50_{drm rbt}: >18.7 g/kg
TRGS 905 (DE): R_F C

1-75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)* CAS No.: 39450-01-6
TSCA Inventory: listed (CAS 102925-54-2)
Japan CSCL/PRTR: not listed
Japan ISHL: not listed
Korea Exist.Chem.Inventory: not 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.

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

150 mL C4

Chemical: *guanidine hydrochloride* CAS No.: 50-01-1
PNEC(fresh water): -
PNEC = Predicted No Effect Concentration
LC50_{leuciscus idus/96h}: 1759 mg/L
LC50_{fish/96h}: [4d] 690-1850; [48h] 1758-2420 mg/L
EC50_{daphnia/48h}: 70.2 mg/L
EC10_{pseudomonas putida/16h}: [72h] 11.8-33.5 mg/L
Water hazard class (DE): 1 WGK No.: 0788
Storage class (VCI): 12

Chemical: *polyoxyethylene sorbitan monolaurate (Tween® 20)* CAS No.: 9005-64-5
Water hazard class (DE): 1
Storage class (VCI): 10-11

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50 mL C5

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

CAS No.: -

60 mL CE

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

CAS No.: -

300 mL CF

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

CAS No.: 151-21-3

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

CAS No.: -

125 mL CQW

Chemical: *guanidine hydrochloride*
PNEC_(fresh water): -
PNEC = Predicted No Effect Concentration
LC50_{leuciscus idus/96h}: 1759 mg/L
LC50_{fish/96h}: [4d] 690-1850; [48h] 1758-2420 mg/L
EC50_{daphnia/48h}: 70.2 mg/L
EC10_{pseudomonas putida/16h}: [72h] 11.8-33.5 mg/L
Water hazard class (DE): 1 WGK No.: 0788
Storage class (VCI): 12

CAS No.: 50-01-1

Chemical: *ethanol*
PNEC_(fresh water): 0.96 mg/L
PNEC = Predicted No Effect Concentration
LC50_{daphnia magna/48h}: >100 mg/L
LC50_{pimephales promelas/96h}: 13400 - 15100 mg/L
LC50_{leuciscus idus/96h}: [48h] 8140 mg/L
LC50_{fish/96h}: 13 g/L
EC50_{daphnia/48h}: 9.3-14.2 g/L
IC50_{scenedesmus quadricauda/72h}: [7d] 5000 mg/L
EC10_{pseudomonas putida/16h}: [EC5] 6500 mg/L
Water hazard class (DE): 1 WGK No.: 0096
Dispersion coefficient_(octanol-water): -0.31
Storage class (VCI): 3

CAS No.: 64-17-5

8 mL PB

Chemical: *glycerole*
PNEC_(fresh water): 0.885 mg/L
PNEC = Predicted No Effect Concentration
LC50_{fish/96h}: >5000_{24h} mg/L
EC50_{daphnia/48h}: >10_{24h} g/L
IC50_{scenedesmus quadricauda/72h}: IC50_{7d} >10 g/L
EC10_{pseudomonas putida/16h}: EC5: >10 g/L
Water hazard class (DE): 0
Dispersion coefficient_(octanol-water): -1.76
Storage class (VCI): 10

CAS No.: 56-81-5

1-75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)*
Water hazard class (DE): 1
Storage class (VCI): 13

CAS No.: 39450-01-6

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- 12.2 Persistence and degradability**
not necessary
- 12.3 Bioaccumulative potential**
not necessary
- 12.4 Mobility in soil**
not necessary
- 12.5 Results of PBT and vPvB assessment**
no data available
- 12.6 Other adverse effects**
no additional data available

SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

- 13.1 Waste treatment methods**
Normally it is possible to empty small amounts (diluted!) into drains.

SECTION 14: Transport information

14.1 UN number:	1993	14.2 UN proper shipping name:	Flammable liquid, n.o.s. (ethanol mixture)
14.3 Class:	3	14.4 Packing group:	III
<i>Road transport</i>			
Classification code:	F1	Tunnel restriction code:	E
Limited Quantity:	5 L	Special instructions:	640E
Excepted Quantity:	E 1		
<i>Air transport</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**
German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013
German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC
TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011
MN Leaflet/User manual, also see www.mn-net.com
Look for your country-specific regulations.
- 15.2 Chemical safety assessment**
not necessary for these small amounts ---

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SECTION 16: Other information

16.1 List of H and P phrases

16.1.1 List of relevant H phrases

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
P264W	Wash with water thoroughly after handling.
P280sh	Wear protective gloves/eye protection.
P301+312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

16.2 Training advice

Multiple safety training of staffs about danger and protection by using hazards in working area. Additionally training and introduction of staffs for using these products.

16.3 Recommended restriction on use

Only for professional user.
Look about employee restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!
Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or for DE §§ 11-13 MuSchG 2017)!
An individual package of this product or test kit has a moderate hazardous potential.

16.4 Further information

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16.5 Sources of key data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS
Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 849/2021/EU, 4th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated 03/2019
SUVA .CH, Limits in air at work 2009, revised on 01.2009
TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU
2017-08 Adaption of new ethanol denaturation 2016/1867/EU
2017-11 Adaption of ECHA Registration dossier