

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 1/13

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

1.1 Product identifier

REF 740951.250
Product name NucleoSpin Blood (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 60 mL B3
1 x 50 mL B5
1 x 60 mL BE
1 x 150 mL BW
1 x 8 mL PB
2 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

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, H335 STOT SE 3

2.1 Classification of the substance or mixture

60 mL B3

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 2/13



GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H302
H319

Acute Tox. 4 oral
Eye Irrit. 2

50 mL B5

Signal word

Do not need labelling as hazardous
-

No hazard class

60 mL BE

Signal word

Do not need labelling as hazardous
-

No hazard class

150 mL BW



GHS02



GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226
H302
H319
H336, H335

Flam. Liq. 3
Acute Tox. 4 oral
Eye Irrit. 2
STOT SE 3

8 mL PB

Signal word

Do not need labelling as hazardous
-

No hazard class

1-75 mg Proteinase K (Iyo)



GHS07



GHS08

Signal word

DANGER

Hazard identification

Hazard classes/categories

H315
H319
H334

Skin Irrit. 2
Eye Irrit. 2
Resp. Sens. 1

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 3/13

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. The irritant hazard should be eliminated, because of buffer chemicals inside.

60 mL B3



GHS07

Signal word: WARNING

50 mL B5

Do not need labelling as hazardous
Signal word: -

60 mL BE

Do not need labelling as hazardous
Signal word: -

150 mL BW



GHS02



GHS07

Signal word: WARNING

H226, H302, H319, H336

Flammable liquid and vapour. Harmful if swallowed. Causes serious eye irritation. May cause drowsiness or dizziness.

P210, P260D, P264W, P280sh, P301+312, P330

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not breathe vapours. Wash with water thoroughly after handling. Wear protective gloves/eye protection. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

8 mL PB

Do not need labelling as hazardous
Signal word: -

1-75 mg Proteinase K (Iyo)



GHS07



GHS08

Signal word: DANGER

H334

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

P261sh, P342+311

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

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 4/13

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.

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

60 mL B3

Chemical:	<i>guanidine hydrochloride</i>	CAS No.:	50-01-1
Classification:	H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2		
Formula:	CH ₆ ClN 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:	36 - <50 %		
acc. CLP (GHS):	H302, Acute Tox. 4 oral, H319, Eye Irrit. 2		

Chemical:	<i>polyoxyethylene sorbitan monolaurate (Tween® 20)</i>	CAS No.:	9005-64-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C ₅₈ H ₁₁₄ O ₂₆		
Pseudonym:	Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.		
TSCA Inventory:	listed		
RTECS:	TR7400000	MFCD:	00165986
KE No.:	KE-31681		
Concentration:	10 - <20 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

50 mL B5

Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed, <1%		
KE No.:	listed		
Concentration:	0.1 - <1 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

60 mL BE

Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed, <1%		
KE No.:	listed		
Concentration:	0.1 - <1 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

150 mL BW

Safety Data Sheet

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

REF: 740951.250 NucleoSpin Blood (250) Page: 5/13
 Printing date: 15.11.2021 Date of issue: 21.09.2020

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: 36 - <50 %
 acc. CLP (GHS): H302, Acute Tox. 4 oral, H319, Eye Irrit. 2

Chemical: *2-propanol* CAS No.: 67-63-0
 Classification: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3
 Formula: $\text{C}_3\text{H}_8\text{O}$
 Pseudonym: isopropanol, IPA, propan-2-ol
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119457558-25-XXXX
 EC No.: 200-661-7 Indice No.: 603-117-00-0
 RTECS: NT8050000 MFCD: 00011674
 KE No.: KE-29363
 Concentration: 20 - <35 %
 acc. CLP (GHS): H226, Flam. Liq. 3, H319, Eye Irrit. 2, H336, STOT SE 3

8 mL PB

Chemical: *glycerole* CAS No.: 56-81-5
 Classification: No criteria for classification or naming of chemical not required.
 Formula: $\text{C}_3\text{H}_8\text{O}_3$
 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)

Chemical: *proteinase K (origin: tritirachium album)* 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.

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 6/13

- 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 be carried out by an eye specialist. Inform patient respectively further measures and the possibility of long-term damages. ---

SECTION 5: Firefighting measures

- 5.1 Extinguishing media**
Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.
- 5.2 Special hazards arising from the substance or mixture**
WARNING: Flammable (GHS regulation). May form explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible. ---
- 5.3 Advice for firefighters**
No, for listed product. The substance/mixture is flammable. Product package burns like paper or plastic. Cool any undamaged containers in water, and remove from the danger zone if possible. Heating will lead to an increase in pressure, and a danger of bursting. Spray any vapours released with water. Retent fire water. Use only acid-resistant safety equipment. For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.
- 5.4 Additional information**
Danger for environment **only in the event of a large-scale leakage** or formation of hazardous substances. ---

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Do not breathe vapours. Wear suitable protective gloves (see 8.2.2). Wear eye protection. Keep product away from sources of ignition - No smoking. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.
- 6.2 Environmental precautions**
not necessary
- 6.3 Methods and material for containment and cleaning up**
Bind any escaping liquid with inert absorbent. And dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into drains.
- 6.4 Reference to other sections**
see information in section 5.4 ---

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**
Handling in accordance with the test instruction, that comes with the product. Use only in well-ventilated working areas.
- 7.2 Conditions for safe storage, including any incompatibilities**
The original product package of MACHEREY-NAGEL allows a safe storage.
Storage class (VCI): 3
Water hazard class (DE): 1
- 7.2.1 Requirements for stock rooms and containers**

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 7/13

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

60 mL B3

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: *polyoxyethylene sorbitan monolaurate (Tween® 20)* CAS No.: 9005-64-5

50 mL B5

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

60 mL BE

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

150 mL BW

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: *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

TRGS 900 (DE): 200 ppm / 500 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: 200 ppm / 500 mg/m³

TRGS 903 (DE): [Aceton B/b, U/b] 25 mg/L
B blood, U urine, a no limitation, b end of exposition or shift

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

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

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 8/13

1-75 mg Proteinase K (Iyo)

Chemical: *proteinase K (origin: tritirachium album)*
SUVA(CH) MAK value: 0,00006_{15min} mg/m³

CAS No.: 39450-01-6

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

60 mL B3

Appearance: liquid	Colour: slightly yellow	Odor: odorless
pH:	3.5-4	
Specific gravity:	1.15 g/cm ³	

50 mL B5

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	7-8	
Specific gravity:	1.00 g/cm ³	

60 mL BE

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	8-9	
Specific gravity:	1.0 g/cm ³	

150 mL BW

Appearance: liquid	Colour: colourless	Odor: alcoholic
pH:	7-8	
Flash point:	25 °C	
Specific gravity:	1.06 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 (lyoph.)	Colour: slightly grey	Odor: odorless
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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

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 9/13

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

10.4 Conditions to avoid

Not necessary. But can form explosive gases/vapour with air. Use only in a well-ventilated working areas. ---

10.5 Incompatible materials

Avoid contact with strong acids or alkalines. Avoid storage with oxidising substances.

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

60 mL B3

Chemical:	<i>guanidine hydrochloride</i>	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:	<i>polyoxyethylene sorbitan monolaurate (Tween® 20)</i>	CAS No.: 9005-64-5
TSCA Inventory:	listed	
Korea Exist.Chem.Inventory:	KE-31681	

50 mL B5

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

60 mL BE

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

150 mL BW

Chemical:	<i>guanidine hydrochloride</i>	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	

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Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 10/13

LD50_{drm rbt} : 2000 mg/kg
Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

Chemical: 2-propanol CAS No.: 67-63-0
TSCA Inventory: listed California Proposition 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
Australia NICNAS: Canada CEPA 1999: DSL yes
Japan CSCL/PRTR: PAC yes, Japan PDSCL: -
Japan ISHL: listed ≥1,0%/≥0,1%, Article 57-2 (SDS required)
South Korea TCCA:
Korea Exist.Chem.Inventory: KE-29363
LD50_{orl rat} : 5045 mg/kg
LC₅₀_{orl hmn} : 3570 mg/kg
LC50_{ihl rat} : 16_{4h} g/m³
LD50_{drm rbt} : 12.8 g/kg
TRGS 905 (DE): 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 PDSCL: 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.

60 mL B3

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

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 11/13

50 mL B5

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

CAS No.: -

60 mL BE

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

CAS No.: -

150 mL BW

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 putita/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: *2-propanol*
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
Water hazard class (DE): 1 WGK No.: 0135
Dispersion coefficient_(octanol-water): 0.05
Storage class (VCI): 3

CAS No.: 67-63-0

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}: IC5_{7d} >10 g/L
EC10_{pseudomonas putita/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

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

Safety Data Sheet

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

REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 12/13

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. (2-propanol 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 ---

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.
H336	May cause drowsiness or dizziness.

16.1.2 List of relevant P phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260D	Do not breathe vapours.
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.

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REF: 740951.250
Printing date: 15.11.2021

NucleoSpin Blood (250)
Date of issue: 21.09.2020

Page: 13/13

P330
P342+311

Rinse mouth.
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 ArbSchG)!
Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or for DE §§ 11-13 MuSchG 2017)!
An individual package of this product or test kit has a moderate hazardous potential.

16.4 Further information

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16.5 Sources of key data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS
Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 849/2021/EU, 4th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated 03/2019
SUVA .CH, Limits in air at work 2009, revised on 01.2009
TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011
Directive 1999/92/EC Minimum requirements for improving the safety and health protection of workers at risk from potentially explosive atmospheres
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

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