

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 1/15

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

1.1 Product identifier

REF 740969.250
Product name NucleoSpin totalRNA FFPE XS (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 30 mL Buffer for rDNase
3 x 1.25 mL Liquid Proteinase K
1 x 10 mL MKA
1 x 50 mL MLF
1 x 100 mL MW2
1 x 250 mL MX
1 x 300 mL Paraffin Dissolver (blue)
3 x 200 U, Size D, rDNase
1 x 13 mL H₂O (RNase free)

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
H225	Flam. Liq. 2
H304	Asp. Tox. 1
H319	Eye Irrit. 2
H334	Resp. Sens. 1
H335	STOT SE 3
H351	Carc. 2

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 2/15

2.1 Classification of the substance or mixture

30 mL Buffer for rDNase

Signal word Do not need labelling as hazardous
-
No hazard class

1.25 mL Liquid Proteinase K

Signal word Do not need labelling as hazardous
-
No hazard class

10 mL MKA

Signal word Do not need labelling as hazardous
-
No hazard class

50 mL MLF

Signal word Do not need labelling as hazardous
-
No hazard class

100 mL MW2

Signal word Do not need labelling as hazardous
-
No hazard class

250 mL MX



Signal word DANGER

Hazard identification	Hazard classes/categories
H225	Flam. Liq. 2
H319	Eye Irrit. 2
H335	STOT SE 3
H351	Carc. 2

300 mL Paraffin Dissolver (blue)



Signal word DANGER

Hazard identification	Hazard classes/categories
H304	Asp. Tox. 1

www.mn-net.com

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 3/15

200 U, Size D, rDNase



GHS08

Signal word

DANGER

Hazard identification

H334

Hazard classes/categories

Resp. Sens. 1

13 mL H₂O (RNase free)

Signal word

Do not need labelling as hazardous

-

No hazard class

2.2 Label elements

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

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

30 mL Buffer for rDNase

Do not need labelling as hazardous

Signal word: -

1.25 mL Liquid Proteinase K

Do not need labelling as hazardous

Signal word: -

10 mL MKA

Do not need labelling as hazardous

Signal word: -

50 mL MLF

Do not need labelling as hazardous

Signal word: -

100 mL MW2

Do not need labelling as hazardous

Signal word: -

250 mL MX



GHS02



GHS07



GHS08

Signal word: DANGER

H225, H319, H335, H351

Highly flammable liquid and vapour. Causes serious eye irritation. May cause respiratory irritation. Suspected of causing cancer.

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 4/15

P201, P210, P261sh, P280sh, P403+233

Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing dust/vapours. Wear protective gloves/eye protection. Store in a well-ventilated place. Keep container tightly closed.

300 mL Paraffin Dissolver (blue)



GHS08

Signal word: DANGER

H304

May be fatal if swallowed and enters airways.

P301+310, P331

IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Do NOT induce vomiting.

200 U, Size D, rDNase



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.

13 mL H₂O (RNase free)

Do not need labelling as hazardous

Signal word: -

2.3 Other hazards

Possible hazards from physicochemical properties

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

Information pertaining to particular risks to human and possible symptoms

Cause after inhalation of vapours/dust, 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. In liquid form no hazard H334. Suspected of causing cancer. May be fatal if swallowed and enters airways. The Paraffin Dissolver needs no labeling H350, because the aromates are reduced (<0.03%). -

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

30 mL Buffer for rDNase

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 5/15

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.

1.25 mL Liquid Proteinase K

Chemical: *proteinase K, liquid (origin: tritirachium album)* CAS No.: 39450-01-6I
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: 1 - <3 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *glycerole* CAS No.: 56-81-5
Classification: No criteria for classification or naming of chemical not required.
Formula: C₃H₈O₃
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: 50 - <80 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

10 mL MKA

Chemical: *acetate buffer solution* CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
Formula: CH₃COOH/K/Na•H₂O
TSCA Inventory: all listed
KE No.: listed
Concentration: 45 - <60 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

50 mL MLF

Chemical: *tris(hydroxymethyl)aminomethane* CAS No.: 77-86-1
Classification: No criteria for classification or naming of chemical not required.
Formula: C₄H₁₁NO₃
Pseudonym: Trometamol, 2-amino-2-(hydroxymethyl)-1,3-propanediol
TSCA Inventory: listed
REACH Reg. No.: 01-2119957659-16-0014
EC No.: 201-064-4
RTECS: TY2900000 MFCD: 00004679
KE No.: KE-01403
Concentration: 1 - <3 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

100 mL MW2

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

250 mL MX

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 6/15

Chemical: 1,4-dioxane CAS No.: 123-91-1
Classification: H225, Flam. Liq. 2, H319, Eye Irrit. 2, H335, STOT SE 3, H351, Carc. 2
Formula: C₄H₈O₂
Pseudonym: diethylene dioxide; diethylene ether; p-dioxane
TSCA Inventory: listed
REACH Reg. No.: 01-2119462837-26-0001
EC No.: 204-661-8
RTECS: JG8225000
KE No.: KE-10463
Concentration: 90 - <100 %
acc. CLP (GHS): H225, Flam. Liq. 2, H319, Eye Irrit. 2, H335, STOT SE 3, H351, Carc. 2

Indice No.: 603-024-00-5
MFCD: 00006571

300 mL Paraffin Dissolver (blue)

Chemical: paraffin dissolver CAS No.: 64742-46-7
(, Aromates <0.03%)
Classification: H304, Asp. Tox. 1
Formula: C₁₅-C₂₀, isomere aliphates
Pseudonym: distillates (petroleum), hydrotreated middle
TSCA Inventory: listed
REACH Reg. No.: 01-2119827000-58-XXXX
EC No.: 934-956-3
KE No.: KE-12554
Concentration: 90 - <100 %
acc. CLP (GHS): H304, Asp. Tox. 1

Indice No.: 649-275-00-4

Chemical: colour dye(s) CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
TSCA Inventory: all listed, <1%
Concentration: < 0.10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

200 U, Size D, rDNase

Chemical: rDNase CAS No.: 9003-98-9
Classification: H334, Resp. Sens. 1
Formula: Enzyme Comm. No. 3.1.21.1, origin: cloned
Pseudonym: Nuclease, deoxyribo-
TSCA Inventory: listed
EC No.: 232-667-0
RTECS: RF0750000
KE No.: KE-09612
Concentration: 90 - <100 %
acc. CLP (GHS): H334, Resp. Sens. 1

13 mL H₂O (RNase free)

Chemical: water CAS No.: 7732-18-5
Classification: No criteria for classification or naming of chemical not required.
Formula: H₂O
TSCA Inventory: listed
REACH Reg. No.: exempt, Annex IV
EC No.: 231-791-2
RTECS: ZC0110000
KE No.: KE-35400
Concentration: 90 - <100 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

3.3 Remarks

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

List of H and P phrases: see section 16.1

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 7/15

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 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.

CMR Effects: Suspected of causing cancer. ---

4.3 Indication of any immediate medical attention and special treatment needed

After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive chemical. Further treatment must to be carried out by an eye specialist. Inform patient respectively further measures and the possibility of long-term damages. ---

SECTION 5: Firefighting measures

5.1 Extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

5.2 Special hazards arising from the substance or mixture

DANGER: Highly flammable (GHS regulation). Forms 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 highly 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.

5.4 Additional information

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. Not for organic solvents (see section 13).

6.4 Reference to other sections

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 8/15

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. Classification into storage class A.

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, and store in a well-ventilated place at max. 25 °C, away or preferably separate from substances with which a hazardous reaction could take place. Use inbreakable container for transport of glass bottles.

7.3 Specific end use(s)

Product for analytical use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

30 mL Buffer for rDNase

Chemical: chemicals/mixture < 2%

CAS No.: -

1.25 mL Liquid Proteinase K

Chemical: proteinase K, liquid (origin: tritirachium album)

CAS No.: 39450-01-61

SUVA(CH) MAK value: 0,00006_{15min} mg/m³

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

10 mL MKA

Chemical: acetate buffer solution

CAS No.: -

50 mL MLF

Chemical: tris(hydroxymethyl)aminomethane

CAS No.: 77-86-1

DNEL: [derm] 166.7 mg/kg bw/day; [inh] 117.5 mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): no data mg/L

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

100 mL MW2

Chemical: chemicals/mixture < 1%

CAS No.: -

250 mL MX

Chemical: 1,4-dioxane

CAS No.: 123-91-1

DNEL: 73 mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 10 mg/L

PNEC = Predicted No Effect Concentration

EU value: 20 ppm / 73 mg/m³

TRGS 900 (DE): 20 ppm / 73 mg/m³

E/e respirable

www.mn-net.com

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 9/15

Short-term exposure factor: 2 (I), H, Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded
SUVA(CH) MAK value: 20 ppm / 72 mg/m³
TRGS 903 (DE): 2-Hydroxyethoxyessigsäure U/b Kreatinin 400 mg/g
B blood, U urine, a no limitation, b end of exposition or shift
NIOSH: Occupational Carcinogen List Yes; TWA_{30min} 1 ppm / 3.6 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: [skin] TWA 100 ppm / 360 mg/m³

300 mL Paraffin Dissolver (blue)

Chemical: *paraffin dissolver* CAS No.: 64742-46-7
TRGS 900 (DE): 600 mg/m³
E/e respirable
Short-term exposure factor: 2 (II)
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded
NIOSH STEL: 10 mg/m³
OSHA: 5 mg/m³

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

200 U, Size D, rDNase

Chemical: *rDNase* CAS No.: 9003-98-9

13 mL H₂O (RNase free)

Chemical: *water* CAS No.: 7732-18-5

8.2 Exposure controls

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

8.2.1 Respiratory protection

Use for open access of these substances for example a 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

30 mL Buffer for rDNase

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	6.5-7.5	
Specific gravity:	1.01 g/cm ³	

1.25 mL Liquid Proteinase K

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	7-8	
Specific gravity:	1.1 g/cm ³	
Solubility in water:	0-100 %	

10 mL MKA

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 10/15

Appearance: liquid pH: Specific gravity:	Colour: colourless 5-6 1.19 g/cm ³	Odor: acetic
50 mL MLF Appearance: liquid Solubility in water:	Colour: colourless 0-100 %	Odor: odorless
100 mL MW2 Appearance: liquid pH: Specific gravity:	Colour: colourless 7-8 1.00 g/cm ³	Odor: odorless
250 mL MX Appearance: liquid Odor limit: pH: Melting point: Boiling point: Flash point: Evaporation rate(ether=1) : Explosion limits: Vapour pressure (20°C): Vapour density(air=1) : Specific gravity: Solubility in water: Flashing temperature: Volatiles by volume:	Colour: colourless 10-620 mg/m ³ 6-8 12 °C 101.5 °C 11 °C 7,3 1.9-22.5 Vol% 41 hPa 3,04 1.01-1.03 g/cm ³ < 2 % 375 °C 149 g/m ³	Odor: odorless
300 mL Paraffin Dissolver (blue) Appearance: liquid pH: Melting point: Boiling point: Flash point: Evaporation rate(ether=1) : Explosion limits: Vapour pressure (20°C): Specific gravity: Solubility in water: Dispersion coefficient(octanol-water) : Flashing temperature:	Colour: blue - -18 _{pourpoint} °C 245-330 °C >115 °C >1000 1-6 Vol% < 0.003 hPa 0.82 g/cm ³ <0,001 % 7-8.7 >230 °C	Odor: organic
200 U, Size D, rDNase Appearance: solid (lyoph.)	Colour: white	Odor: odorless
13 mL H₂ O (RNase free) Appearance: liquid pH: Specific gravity:	Colour: colourless 6-8 1.0 g/cm ³	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

Substances are very volatile and form flammable vapour-air mixtures. ---

SECTION 10: Stability and reactivity

10.1 Reactivity

no further data available.

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 11/15

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

But avoid reactions with oxidizing agents. No further data available.

10.4 Conditions to avoid

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

10.5 Incompatible materials

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

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

30 mL Buffer for rDNase

Chemical: chemicals/mixture < 2%
TSCA Inventory: all listed, <2%
Korea Exist.Chem.Inventory: listed

CAS No.: -

1.25 mL Liquid Proteinase K

Chemical: proteinase K, liquid (origin: tritirachium album)
TSCA Inventory: listed (CAS 102925-54-2)
Japan CSCL/PRTR: not listed
Japan ISHL: not listed
Korea Exist.Chem.Inventory: not listed

CAS No.: 39450-01-6l

Chemical: glycerole
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_{drum rbt}: >18.7 g/kg

CAS No.: 56-81-5

TRGS 905 (DE): R_F C

10 mL MKA

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

CAS No.: -

50 mL MLF

Chemical: tris(hydroxymethyl)aminomethane
TSCA Inventory: listed
Australia NICNAS: not listed
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: not listed
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-01403
LD50_{orl rat}: 5000 mg/kg

CAS No.: 77-86-1

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 12/15

100 mL MW2

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

CAS No.: -

250 mL MX

Chemical: 1,4-dioxane CAS No.: 123-91-1
TSCA Inventory: listed California Proposition 65 List: listed cancer
Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, liver, kidneys; [in animals: lung, liver & nasal cavity tumors]
Symptoms: irritation eyes, skin, nose, throat; drowsiness, headache; nausea, vomiting; liver damage; kidney failure; [potential occupational carcinogen]
Australia NICNAS: Yes (PEC/7) Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR: PAC Yes, PRTR - Class I Designated Chemical Substance Yes, Japan PDSCL: PRTR: ≥1,0% class I
Japan ISHL: listed ≥1,0% ≥1,0%, Article 57-1+2 (Labelling&SDS required)
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-10463
LD50_{orl rat}: 5150 mg/kg
LC50_{inh rat}: [LC0, 60min] 155 mg/L
Acute Effects: Cause after inhalation of vapours/dust, impairments of health when ingested in small quantities.
Carcinogenic Effects: Suspected of causing cancer.
EU carcinogen: Carcinogenicity cat. 2
TRGS 905 (DE): K4, R_F C

300 mL Paraffin Dissolver (blue)

Chemical: paraffin dissolver
TSCA Inventory: listed
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: not listed
Korea Exist.Chem.Inventory: KE-12554
LD50_{orl rat}: >5000 mg/kg
LC50_{inh rat}: >5266_{4h} mg/m³
LD50_{drm rbt}: >3160 mg/kg

CAS No.: 64742-46-7

Chemical: colour dye(s)
TSCA Inventory: all listed, <1%

CAS No.: -

200 U, Size D, rDNase

Chemical: rDNase CAS No.: 9003-98-9
TSCA Inventory: listed
Japan CSCL/PRTR: not listed
Japan ISHL: not listed
Korea Exist.Chem.Inventory: KE-09612
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.

13 mL H₂O (RNase free)

Chemical: water
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-35400

CAS No.: 7732-18-5

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 13/15

30 mL Buffer for rDNase

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

CAS No.: -

1.25 mL Liquid Proteinase K

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

CAS No.: 39450-01-6l

Chemical: *glycerole*
PNEC(fresh water) : 0.885 mg/L
PNEC = Predicted No Effected 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 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

10 mL MKA

Chemical: *acetate buffer solution*
Storage class (VCI): 12

CAS No.: -

50 mL MLF

Chemical: *tris(hydroxymethyl)aminomethane*
PNEC(fresh water) : no data mg/L
PNEC = Predicted No Effected Concentration
LC50_{fish/96h} : LD0 (4d): 1-10 g/L
EC50_{pseudokirchneriella subcapitata/72h} : 397;48h: 473 mg/L
EC10_{pseudomonas putita/16h} : 13h g/L
Water hazard class (DE): 2
Dispersion coefficient_(octanol-water) : -1.56
Storage class (VCI): 12-13

CAS No.: 77-86-1

100 mL MW2

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

CAS No.: -

250 mL MX

Chemical: *1,4-dioxane*
PNEC(fresh water) : 10 mg/L
PNEC = Predicted No Effected Concentration
Bio Toxicity: 1/2.1/2.6
LC50_{fish/96h} : [21d] 100 mg/L
EC50_{daphnia/48h} : 1 g/L
IC50_{scenedesmus quadricauda/72h} : [72h] 1 g/L
Water hazard class (DE): 2 WGK No.: 0086
Dispersion coefficient_(octanol-water) : -0.42
Storage class (VCI): 3

CAS No.: 123-91-1

300 mL Paraffin Dissolver (blue)

Chemical: *paraffin dissolver*
LC50_{fish/96h} : >1028 mg/L
Water hazard class (DE): 1 WGK No.: 0027
Dispersion coefficient_(octanol-water) : 7-8.7
Storage class (VCI): 12

CAS No.: 64742-46-7

Chemical: *colour dye(s)*

CAS No.: -

200 U, Size D, rDNase

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 14/15

Chemical: *rDNase*
Water hazard class (DE):
Storage class (VCI):

1
13
WGK No.: n.n.

CAS No.: 9003-98-9

13 mL H₂O (RNase free)

Chemical: *water*

CAS No.: 7732-18-5

12.2 Persistence and degradability

not necessary

12.3 Bioaccumulative potential

not necessary

12.4 Mobility in soil

not necessary

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no additional data available

SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06). Or collect in solvent waste (waste code number 07 07 04).

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. (1,4-dioxane mixture)

14.3 Class: 3 **14.4 Packing group:** II

Road transport

Classification code: F1

Limited Quantity: 1 L

Excepted Quantity: E 2

Air transport

PAX: 353

CAO: 364

Maritime transport

EmS: F-E, S-E

Tunnel restriction code: E

Special instructions: 640C

max. weight PAX: 5 L

max. weight CAO: 60 L

Storage category: B

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.

Safety Data Sheet

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

REF: 740969.250
Printing date: 15.11.2021

NucleoSpin totalRNA FFPE XS (250)
Date of issue: 20.07.2020

Page: 15/15

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

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.

16.1.2 List of relevant P phrases

P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P261sh	Avoid breathing dust/vapours.
P280sh	Wear protective gloves/eye protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331	Do NOT induce vomiting.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P403+233	Store in a well-ventilated place. Keep container tightly closed.

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

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.
MACHEREY-NAGEL GmbH & Co. KG makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly MACHEREY-NAGEL GmbH & Co. KG will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

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