

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 1/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

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

1.1 Product identifier

REF 740669
Product name NucleoSpin 8 Plant II (12x8)

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 PC
1 x 75 mL PL1
1 x 60 mL PL2
1 x 25 mL PL3
1 x 75 mL PW1
1 x 50 mL PW2
1 x 0.6-100 mg RNase A (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
H319
H334
H336, H335

Hazard classes/categories

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

2.1 Classification of the substance or mixture

60 mL PC

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 2/15

Printing date: 15.11.2021

Date of issue: 14.08.2020



GHS02

GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

H302

Acute Tox. 4 oral

75 mL PL1

Signal word

Do not need labelling as hazardous

No hazard class

60 mL PL2

Signal word

Do not need labelling as hazardous

No hazard class

25 mL PL3

Signal word

Do not need labelling as hazardous

No hazard class

75 mL PW1



GHS02

GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226

Flam. Liq. 3

H302

Acute Tox. 4 oral

H319

Eye Irrit. 2

H336, H335

STOT SE 3

50 mL PW2

Signal word

Do not need labelling as hazardous

No hazard class

0.6-100 mg RNase A (Iyo)



GHS08

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 3/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

Signal word

DANGER

Hazard identification

Hazard classes/categories

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

60 mL PC



GHS02



GHS07

Signal word: WARNING

75 mL PL1

Do not need labelling as hazardous

Signal word: -

60 mL PL2

Do not need labelling as hazardous

Signal word: -

25 mL PL3

Do not need labelling as hazardous

Signal word: -

75 mL PW1



GHS02



GHS07

Signal word: WARNING

50 mL PW2

Do not need labelling as hazardous

Signal word: -

0.6-100 mg RNase A (Iyo)



GHS08

Signal word: DANGER

H334

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

P261sh, P342+311

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 4/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

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

60 mL PC

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:	24 - <36 %		
acc. CLP (GHS):	H302, Acute Tox. 4 oral		

Chemical:	<i>ethanol</i>	CAS No.:	64-17-5
	(denatured with 1%IPA/1%MEK, acc.2016/1867/EU)		
Classification:	H225, Flam. Liq. 2		
Formula:	C ₂ H ₆ O; C ₂ H ₅ OH		
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		

75 mL PL1

Chemical:	<i>sodium chloride</i>	CAS No.:	7647-14-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	NaCl		
Pseudonym:	salt		
TSCA Inventory:	listed		
REACH Reg. No.:	exempt, Annex V		
EC No.:	231-598-3		
RTECS:	VZ4725000		
KE No.:	KE-31387		
Concentration:	5 - <10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

60 mL PL2

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 5/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

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: *sodium chloride* CAS No.: 7647-14-5
Classification: No criteria for classification or naming of chemical not required.
Formula: $NaCl$
Pseudonym: salt
TSCA Inventory: listed
REACH Reg. No.: exempt, Annex V
EC No.: 231-598-3
RTECS: VZ4725000
KE No.: KE-31387
Concentration: 1 - <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.

25 mL PL3

Chemical: *acetate buffer solution* CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
Formula: $CH_3COOH/K/Na \cdot H_2O$
TSCA Inventory: all listed
KE No.: listed
Concentration: 45 - <60 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

75 mL PW1

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: C_3H_8O
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

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 6/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

50 mL PW2

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.

0.6-100 mg RNase A (lyo)

Chemical: RNase

CAS No.: 9001-99-4

Classification: H334, Resp. Sens. 1

Formula: Enzyme Comm. No. 3.1.27.5, origin: bovine pancreas (controlled population)

Pseudonym: Nuclease, ribo-

TSCA Inventory: listed

EC No.: 232-646-6

RTECS: RF0760000

KE No.: KE-30341

Concentration: 90 - <100 %

acc. CLP (GHS): 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 with eye washing bottle, eye douche or running water (protect intact eye).

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. ---

4.3 Indication of any immediate medical attention and special treatment needed

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.

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 7/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

5.4 Additional information

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. 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

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

60 mL PC

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

75 mL PL1

Safety Data Sheet

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

REF: 740669 NucleoSpin 8 Plant II (12x8) Page: 8/15
 Printing date: 15.11.2021 Date of issue: 14.08.2020

Chemical: *sodium chloride* CAS No.: 7647-14-5

60 mL PL2

Chemical: *dodecyl sulfate, sodium salt* CAS No.: 151-21-3
 NIOSH: not listed
 [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period
 OSHA: not listed

Chemical: *sodium chloride* CAS No.: 7647-14-5

Chemical: *chemicals/mixture < 2%* CAS No.: -

25 mL PL3

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

75 mL PW1

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 (II), 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

50 mL PW2

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

0.6-100 mg RNase A (lyo)

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

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

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 9/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

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 PC

Appearance: liquid

Colour: yellow

Odor: alcoholic

pH:

5-7

Flash point:

23 °C

Specific gravity:

1.01 g/cm³

75 mL PL1

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7.5-8.5

Specific gravity:

1.06 g/cm³

60 mL PL2

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7.5-8.5

Specific gravity:

1.03 g/cm³

25 mL PL3

Appearance: liquid

Colour: colourless

Odor: acetic

pH:

5-6

Specific gravity:

1.19 g/cm³

75 mL PW1

Appearance: liquid

Colour: colourless

Odor: alcoholic

pH:

7-8

Flash point:

25 °C

Specific gravity:

1.06 g/cm³

50 mL PW2

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7-8

Specific gravity:

1.00 g/cm³

0.6-100 mg RNase A (lyo)

Appearance: solid (lyoph.)

Colour: colourless

Odor: odorless

Solubility in water:

0-100 %

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. ---

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 10/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

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.

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 PC

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: *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 PDSCL: not listed
Japan ISHL: listed ≥0,1%/≥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

75 mL PL1

Chemical: *sodium chloride* CAS No.: 7647-14-5
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-31387
LD50_{orl rat}: 3000 mg/kg
LD50_{drm rbt}: 10 g/kg

60 mL PL2

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

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 11/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

Chemical: *sodium chloride*
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-31387
LD50_{orl rat}: 3000 mg/kg
LD50_{drm rbt}: 10 g/kg

CAS No.: 7647-14-5

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

CAS No.: -

25 mL PL3

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

CAS No.: -

75 mL PW1

Chemical: *guanidine hydrochloride*
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-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.

CAS No.: 50-01-1

California Proposition 65 List: not listed
Canada CEPA 1999: DSL yes

Chemical: *2-propanol*
TSCA Inventory: 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: KE-29363
Korea Exist.Chem.Inventory: KE-29363
LD50_{orl rat}: 5045 mg/kg
LC_{Low orl hmn}: 3570 mg/kg
LC50_{ihl rat}: 16_{4h} g/m³
LD50_{drm rbt}: 12.8 g/kg

CAS No.: 67-63-0

California Proposition 65 List: not listed

TRGS 905 (DE): R_F C

50 mL PW2

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

CAS No.: -

0.6-100 mg RNase A (Iyo)

Chemical: *RNase*
TSCA Inventory: listed
Japan CSCL/PRTR: not listed
Japan ISHL: not listed
Korea Exist.Chem.Inventory: KE-30341
LD50_{intraperitoneal rat}: 392 mg/kg
Acute Effects: Cause after impairments of health when ingested in small quantities.
Chronic Effects: May cause sensitization by skin contact, also in repeated contact of small amounts. May cause allergy or asthma

CAS No.: 9001-99-4

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Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 12/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

symptoms or breathing difficulties if inhaled.

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

60 mL PC

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: *ethanol*

CAS No.: 64-17-5

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

LC50_{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

75 mL PL1

Chemical: *sodium chloride*

CAS No.: 7647-14-5

Water hazard class (DE): 1

Storage class (VCI): 12-13

60 mL PL2

Chemical: *dodecyl sulfate, sodium salt*

CAS No.: 151-21-3

LC50_{daphnia magna/48h} : 6.3 mg/L

LC50_{fish/96h} : 1.31-22.5 mg/L

Water hazard class (DE): 2

Dispersion coefficient_(octanol-water) : 1.6

Storage class (VCI): 12-13

Chemical: *sodium chloride*

CAS No.: 7647-14-5

Water hazard class (DE): 1

Storage class (VCI): 12-13

Chemical: *chemicals/mixture < 2%*

CAS No.: -

Water hazard class (DE): 1

Storage class (VCI): 12-13

25 mL PL3

Chemical: *acetate buffer solution*

CAS No.: -

Storage class (VCI): 12

75 mL PW1

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

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 13/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

Water hazard class (DE): 1 WGK No.: 0788
Storage class (VCI): 12

Chemical: 2-propanol CAS No.: 67-63-0
PNEC(fresh water): 140.9 mg/L
PNEC = Predicted No Effect Concentration
LC50_{fish/96h}: 1400 mg/L
EC50_{daphnia/48h}: 13.3 g/L
IC50_{scenedesmus quadricauda/72h}: >1000 mg/L
EC10_{pseudomonas putida/16h}: EC5: 1050 mg/L
Water hazard class (DE): 1 WGK No.: 0135
Dispersion coefficient_(octanol-water): 0.05
Storage class (VCI): 3

50 mL PW2

Chemical: chemicals/mixture < 1% CAS No.: -
Water hazard class (DE): 1
Storage class (VCI): 12-13

0.6-100 mg RNase A (lyo)

Chemical: RNase CAS No.: 9001-99-4
Water hazard class (DE): 1
Storage class (VCI): 13

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

UN 1993 class 3 III, Excepted Quantities (≤ 30 mL/ $\Sigma \leq 1$ L) = ADR/ IATA E1

or

14.1 UN number: 1993 14.2 UN proper shipping name: Flammable liquid, n.o.s. (ethanol, 2-propanol mixture)

14.3 Class: 3 14.4 Packing group: III

Road transport

Classification code: F1

Limited Quantity: 5 L

Excepted Quantity: E 1

Air transport

PAX: 355

CAO: 366

Maritime transport

EmS: F-E, S-E

Tunnel restriction code: E

Special instructions: 640E

max. weight PAX: 60 L

max. weight CAO: 220 L

Storage category: A

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 14/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

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.
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.
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

Safety Data Sheet

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

REF: 740669

NucleoSpin 8 Plant II (12x8)

Page: 15/15

Printing date: 15.11.2021

Date of issue: 14.08.2020

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