Safety Data Sheet

according to Regulations REACh 1907/2006/EC

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

1.1 Product identifier

REF 740170.50
Product name NucleoSpin Plant Pathogen (50)

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 13 mL RNase-free H_2O
1 x 30 mL PFL — UFI: RJJW-J33M-520W-SAHG
1 x 5 mL PFR
1 x 30 mL PFW1
1 x 25 mL PFW2
1 x 30 mL PFB — UFI: 2DJW-H3QT-J20W-FNCC

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
Valencienner Str. 11, 52355 Düren, Germany
Phone: +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, **<https://www.ggiz-erfurt.de>**

You find our current versions of SDS in Internet: **<http://www.mn-net.com/SDS>**

SECTION 2: Hazard identification

2.0 Classification of the complete product according to Regulation (EC) 1272/2008

GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2

2.1 Classification of the substance or mixture according to Regulation (EC) 1272/2008

30 mL PFL

GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2

30 mL PFW1

Do not need labelling as hazardous

Signal word -

No hazard class

30 mL PFB

GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2

13 mL RNase-free H_2O

Do not need labelling as hazardous

Signal word -

No hazard class

5 mL PFR

Do not need labelling as hazardous

Signal word -

No hazard class

25 mL PFW2

Do not need labelling as hazardous

Signal word -

No hazard class

List of H phrases: see section 16.2

2.2 Label elements according regulation (EC) 1272/2008

According **CLP directive** inner packages must be only labelled with GHS symbol(s) and product identificator(s) (EU 1272/2008 Annex I - 1.5.1.2). Harmful chemicals/mixtures with signal word: **WARNING** must not be labelled with H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2).

30 mL PFL

GHS07

Signal word: WARNING

30 mL PFW1
Do not need labelling as hazardous
Signal word: -

30 mL PFB

GHS07

Signal word: WARNING

13 mL RNase-free H_2O
Do not need labelling as hazardous
Signal word: -

5 mL PFR
Do not need labelling as hazardous
Signal word: -

25 mL PFW2
Do not need labelling as hazardous
Signal word: -

Label elements of the complete product

GHS07

Signal word: WARNING

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.

Information pertaining to particular risks to human and possible symptoms
Cause after oral intake, impairments of health when ingested in small quantities.

Information pertaining to particular risks to the environment
PBT: not applicable
vPvB: not applicable

Possible endocrine disrupting effects
no data available

SECTION 3: Composition / information on ingredients

3.1 Substances or 3.2 Mixtures

30 mL PFL

Substance name:	*guanidine hydrochloride*
CAS No.:	50-01-1
Substance rating:	H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula:	CH_6ClN_3
Pseudonym (de):	Guanidiniumchlorid
REACH Reg. No.:	01-2119977063-35-0005
EC No.:	200-002-3 Indice No.: 607-148-00-0
Concentration:	36 - <50 %
acc. CLP (GHS):	H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

Substance name: *ethylendinitrilo tetraacetic acid (EDTA)*
CAS No.: 60-00-4

Substance rating: H319, Eye Irrit. 2
Formula: $C_{10}H_{16}N_2O_8$
Pseudonym (de): Ethylendiamintetraessigsäure, Titriplex® II
REACH Reg. No.: 01-2119486399-18-xxxx
Concentration: 1 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Substance name: *chemicals/mixture until 2%*
CAS No.: -

Substance rating: No criteria for classification or naming of chemical not required.
Concentration: 1 - <2 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

30 mL PFW1

Substance name: *lithium chloride*
CAS No.: 7447-41-8

Substance rating: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: LiCl
REACH Reg. No.: 01- 2119560574-35-xxxx
EC No.: 231-212-3
Concentration: 1 - <10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

30 mL PFB

Substance name: *lithium chloride*
CAS No.: 7447-41-8

Substance rating: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: LiCl
REACH Reg. No.: 01- 2119560574-35-xxxx
EC No.: 231-212-3
Concentration: 40 - <70 %
acc. CLP (GHS): H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

13 mL RNase-free H_2O

Substance name: *water*
CAS No.: 7732-18-5

Substance rating: No criteria for classification or naming of chemical not required.
Formula: H_2O
REACH Reg. No.: exempt, Annex IV
EC No.: 231-791-2
Concentration: 90 - <100 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

5 mL PFR

Substance name: *sodium sulfite*
CAS No.: 7757-83-7

Substance rating: No criteria for classification or naming of chemical not required.
Formula: Na_2SO_3, E221
Pseudonym (de): E221, Schwefligsaures Natrium
REACH Reg. No.: 01-2119537420-49-xxxx
EC No.: 231-821-4
Concentration: 10 - <20 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

25 mL PFW2

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

Substance rating: No criteria for classification or naming of chemical not required.
Concentration: 0,1 - <1 %
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 16.2.

SECTION 4: First aid measures

4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

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. ---

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

There are no known delayed symptoms or effects for this product.

4.3 Indication of any immediate medical attention and special treatment needed

No additionally recommendations. ---

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

5.1.2 Unsuitable extinguishing media
no data available

5.2 Special hazards arising from the substance or mixture

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.

5.4 Additional information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. Regular staff training is necessary.

6.2 Environmental precautions

PBT: not applicable
vPvB: not applicable

6.3 Methods and material for containment and cleaning up

Bind any escaping liquid with inert absorbent.
Collect small amounts of leaked liquid and flush with water into drains.

6.4 Reference to other sections

no data available

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

7.2 Conditions for safe storage, including any incompatibilities

Safe storage is guaranteed in the original packaging from MACHEREY-NAGEL. Storage class (German chemical industry): see chapter 12.1

Storage class (VCI): 12
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

30 mL PFL

Chemical: *ethylendinitrilo tetraacetic acid (EDTA)* CAS No.: 60-00-4
DNEL: 1.5 mg/m³
DNEL = Derived No-Effect Level (for workers)
PNEC (fresh water) : 2.2 mg/L
PNEC = Predicted No Effected Concentration

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

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 Effected 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

25 mL PFW2
Chemical: *chemicals/mixture until 1%* CAS No.: -

30 mL PFW1
Chemical: *lithium chloride* CAS No.: 7447-41-8
DNEL: 73.2 $_{derm}$ mg/kg bw/d; 10 $_{inh}$ mg/m³
DNEL = Derived No-Effect Level (for workers)
PNEC $_{(fresh\ water)}$: 1.2 mg/L
PNEC = Predicted No Effected Concentration
TRGS 900 (DE): 0.2 E mg/m³
E/e respirable
Short-term exposure factor: 1 (I), Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded
SUVA(CH) MAK value: [als Li][MAK] 0,2 e/[STEL] 0,2 e mg/m³

30 mL PFB
Chemical: *lithium chloride* CAS No.: 7447-41-8
DNEL: 73.2 $_{derm}$ mg/kg bw/d; 10 $_{inh}$ mg/m³
DNEL = Derived No-Effect Level (for workers)
PNEC $_{(fresh\ water)}$: 1.2 mg/L
PNEC = Predicted No Effected Concentration
TRGS 900 (DE): 0.2 E mg/m³
E/e respirable
Short-term exposure factor: 1 (I), Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded
SUVA(CH) MAK value: [als Li][MAK] 0,2 e/[STEL] 0,2 e mg/m³

5 mL PFR
Chemical: *sodium sulfite* CAS No.: 7757-83-7
DNEL: 298 $_{inh}$ mg/m³
DNEL = Derived No-Effect Level (for workers)
TRGS 900 (DE): -
E/e respirable

13 mL RNase-free H $_2$ O
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
No additional recommendations.

8.2.2 Skin protection / 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 / Face Protection
Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

8.2.4 Skin protection
Not necessary.

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.

8.2.6 Thermal hazards
no data available

8.3 Limitation and monitoring of environmental exposure

Do not release product into environment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

30 mL PFL

a) State of aggregation:	liquid
b) Colour:	colourless
c) Odor:	odorless
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	no data available
l) Kinematic viscosity:	no data available
m) Solubility in water:	no data available
n) Dispersion coefficient ($K_{o/w}$):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density $_{(air=1)}$:	no data available
r) Particle size:	no data available

25 mL PFW2

a) State of aggregation:	liquid
b) Colour:	colourless
c) Odor:	odorless
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	7-8
l) Kinematic viscosity:	no data available
m) Solubility in water:	no data available
n) Dispersion coefficient ($K_{o/w}$):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	1.00 g/cm³
q) Relative vapour density $_{(air=1)}$:	no data available
r) Particle size:	no data available

30 mL PFW1

a) State of aggregation:	liquid
b) Colour:	colourless
c) Odor:	odorless
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	no data available
l) Kinematic viscosity:	no data available
m) Solubility in water:	no data available
n) Dispersion coefficient ($K_{o/w}$):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density $_{(air=1)}$:	no data available
r) Particle size:	no data available

30 mL PFB

a) State of aggregation:	liquid
b) Colour:	colourless
c) Odor:	odorless
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	no data available
l) Kinematic viscosity:	no data available
m) Solubility in water:	no data available
n) Dispersion coefficient ($K_{o/w}$):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density $_{(air=1)}$:	no data available
r) Particle size:	no data available

5 mL PFR

a) State of aggregation:	liquid
b) Colour:	colourless
c) Odor:	sulfuric
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	no data available
l) Kinematic viscosity:	no data available
m) Solubility in water:	no data available
n) Dispersion coefficient ($K_{o/w}$):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density $_{(air=1)}$:	no data available
r) Particle size:	no data available

13 mL RNase-free H_2O

a) State of aggregation:	liquid
b) Colour:	colourless
c) Odor:	odorless
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	6-8
l) Kinematic viscosity:	no data available
m) Solubility in water:	no data available
n) Dispersion coefficient ($K_{o/w}$):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	1.0 g/cm³
q) Relative vapour density $_{(air=1)}$:	no data available
r) Particle size:	no data available

9.2 Other information

9.2.1 Information on physical hazard classes

no data available

9.2.2 Other safety-related parameters

No data is available for the other parameters for the mixtures, since no registration and no chemical safety report is required.

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

no data available

10.5 Incompatible materials

no additional data available

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 the hazard classes according regulation (EC) 1272/2008

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

30 mL PFL

Chemical: *ethylendinitrilo tetraacetic acid (EDTA)* CAS No.: 60-00-4
TSCA Inventory: listed
Japan CSCL/PRTR: PRTR: ≥1,0% class I
Korea Exist.Chem.Inventory: KE-13648
LD50 $_{orl\ rat}$: 2000-4500 mg/kg

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

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 $_{ihl\ rat}$: 3181-7655 µg/m³/4H
Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

25 mL PFW2

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

30 mL PFW1
Chemical: *lithium chloride* CAS No.: 7447-41-8
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-22552
LD50 orl rat : 526 mg/kg

30 mL PFB
Chemical: *lithium chloride* CAS No.: 7447-41-8
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-22552
LD50 orl rat : 526 mg/kg
Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

5 mL PFR
Chemical: *sodium sulfite* CAS No.: 7757-83-7
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-31612
LD50 orl rat : 2610 mg/kg
LC50 ihl rat : > 5,5 mg/L/4H

13 mL RNase-free H_2O
Chemical: *water* CAS No.: 7732-18-5
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-35400
LD50 orl rat : > 90000 mg/kg

11.2 Other hazards

Possible endocrine disrupting effects
no data available

Other information
no additional data available

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

30 mL PFL
Substance name: *ethylendinitrilo tetraacetic acid (EDTA)* CAS-Nr.: 60-00-4
PNEC (fresh water) : 2.2 mg/L
PNEC = Predicted No Effected Concentration = concentration at which no effect on the environment is expected
LC50 daphnia magna/48h : [48h] 140 mg/L
LC50 fish/96h : [4d] 41-1592 mg/L
EC50 daphnia/48h : [24h] 480-790 mg/L
EC10 pseudomonas putita/16h : [72h] 2.77-1000 mg/L
Water hazard class (DE): 2
Storage class (VCI): 12-13

Substance name: *chemicals/mixture until 2%* CAS-Nr.: -
Water hazard class (DE): 1
Storage class (VCI): 12-13

Substance name: *guanidine hydrochloride* CAS-Nr.: 50-01-1
PNEC (fresh water) : -
PNEC = Predicted No Effected Concentration = concentration at which no effect on the environment is expected
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

25 mL PFW2
Substance name: *chemicals/mixture until 1%* CAS-Nr.: -
Water hazard class (DE): 1
Storage class (VCI): 12-13

30 mL PFW1
Substance name: *lithium chloride* CAS-Nr.: 7447-41-8
PNEC (fresh water) : 1.2 mg/L
PNEC = Predicted No Effected Concentration = concentration at which no effect on the environment is expected
LC50 fish/96h : 158 mg/L
EC50 daphnia/48h : 249 mg/L
EC50 pseudokirchneriella subcapitata/72h : IC50/72h: 400 mg/L
Water hazard class (DE): 1
Storage class (VCI): 12-13

30 mL PFB
Substance name: *lithium chloride* CAS-Nr.: 7447-41-8
PNEC (fresh water) : 1.2 mg/L
PNEC = Predicted No Effected Concentration = concentration at which no effect on the environment is expected
LC50 fish/96h : 158 mg/L
EC50 daphnia/48h : 249 mg/L
EC50 pseudokirchneriella subcapitata/72h : IC50/72h: 400 mg/L
Water hazard class (DE): 1
Storage class (VCI): 12-13

5 mL PFR
Substance name: *sodium sulfite* CAS-Nr.: 7757-83-7
LC50 fish/96h : 315 96h mg/L
EC10 pseudomonas putita/16h : 260 17h mg/L
Water hazard class (DE): 1 WGK No.: 0282
Storage class (VCI): 12-13

13 mL RNase-free H_2O
Substance name: *water* CAS-Nr.: 7732-18-5

12.2 Persistence and degradability

12.3 Bioaccumulative potential

30 mL PFL
Substance name: *ethylendinitrilo tetraacetic acid (EDTA)* CAS-Nr.: 60-00-4
Dispersion coefficient ($K_{o/w}$): -5,01-0,13

5 mL PFR
Substance name: *sodium sulfite* CAS-Nr.: 7757-83-7
Dispersion coefficient ($K_{o/w}$): -4

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

no data available

12.7 Other adverse effects

no additional data available

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains.

SECTION 14: Transport information

14.1 - 14.4 Not necessary

14.5 Environmental hazards

none, contains only small quantities of hazardous substances

14.6 Special precautions for user

not necessary

14.7 Carriage in bulk by sea in accordance with IMO instruments

Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Dangerous Substances Protection Act (DE: Chemikaliengesetz - ChemG), Aug 2013, Stand: Okt 2020
Ordinance on protection against dangerous substances (E: Gefahrstoffverordnung - GefStoffV), Nov 2010, Stand: Mrz 2017
TRGS 201, Classification and labeling of activities involving hazardous substances, Feb 2017
TRGS 220, National aspects when preparing safety data sheets, Jan 2017
TRGS 400, Risk assessment for activities involving hazardous substances, Jul 2017
BekGS 408, Application of the GefStoffV and the TRGS with the entry into force of the CLP regulation, December 2009, status: Jan 2012
MN leaflet/instructions for use, also at www.mn-net.com
If necessary, observe other country-specific regulations.

15.2 Chemical safety assessment

no data available

SECTION 16: Other information

16.1 Changes compared to the last version

Between versions 3.7.1.1 and 2.2.2.2 following changes were applied: -0 product data corrected - 5 product component data corrected

16.2 List of H and P phrases

16.2.1 List of relevant H phrases

H	Between versions 3.7.1.1 and 2.2.2.2 following changes were applied: -0 product data corrected - 5 product component data corrected
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

16.2.2 List of relevant P phrases

16.3 Recommended restriction on use

Only for professional user.
An individual package of this product or test kit has a moderate hazardous potential.

16.4 Sources of key data

KÜHN, BIRETT, Leaflets on hazardous materials, 2021
Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres
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Regulation 692/2022/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (18th ATP)

revisions/updates
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2014-04 adjustment according Regulation 487/2013/EU
2016-03 adjustment according Regulation 1221/2015/EU

2017-11 adjustment according the ECHA registration dossier
2022-11 adjustment according Regulation 878/2020/EU

16.5 Further information

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16.6 Legend / Abbreviations

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

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

16.7 Training advice

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