

Safety Data Sheet

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

REF: 934123

Photometer PF-3 Drinking Water

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Printing date: 01.10.2019

Date of issue: 15.03.2019

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

1.1 Product identifier

REF 934123
Product name Photometer PF-3 Drinking Water

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 Calibration tube (5 mL)
3 x Alkaline Manganese Batteries Type AA
1 x Button cell CR2032, built-in
1 x 17 mL Fe-1
1 x 5 g Fe-2
3 x 50 capsules NANOFIX pH 6.5-8.2
1 x 20 mL Cl₂-2
1 x 28 g Cl₂-1

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
Neumann-Neander-Str. 6-8, 52355 Dueren, GERMANY
Tel.: +49 2421 969 0

E-mail: sds@mn-net.com (msds@mn-net.com)

1.4 Emergency telephone number

Information not necessary.

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

2.1 Classification of the substance or mixture

Calibration tube (5 mL)

Signal word Do not need labelling as hazardous
-

No hazard class

Alkaline Manganese Batteries Type AA

Signal word Do not need labelling as hazardous
-

No hazard class

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Button cell CR2032, built-in

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

17 mL Fe-1

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

5 g Fe-2

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

50 capsules NANOFIX pH 6.5-8.2

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

20 mL Cl₂ -2

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

28 g Cl₂ -1

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

2.2 Label elements

Calibration tube (5 mL)

Do not need labelling as hazardous
Signal word: -

Alkaline Manganese Batteries Type AA

Do not need labelling as hazardous
Signal word: -

Button cell CR2032, built-in

Do not need labelling as hazardous
Signal word: -

17 mL Fe-1

Do not need labelling as hazardous
Signal word: -



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5 g Fe-2

Do not need labelling as hazardous
Signal word: -

50 capsules NANOFIX pH 6.5-8.2

Do not need labelling as hazardous
Signal word: -

20 mL Cl₂ -2

Do not need labelling as hazardous
Signal word: -

28 g Cl₂ -1

Do not need labelling as hazardous
Signal word: -

2.3 Other hazards

Possible hazards from physicochemical properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit. An individual package has considerably less hazardous potential. The property H314 "Causes severe skin burns and eye damage." of some salts is not applicable, because the mixture is buffered to pH >3-4 (see GHS Directive 1272/2008/EC Annex I, chapter 3.2.3.1.2.). ---

Information pertaining to particular risks to human and possible symptoms

Information pertaining to particular risks to the environment

Other hazards

This SDS contains information on shipping and transport safety. ---

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

Calibration tube (5 mL)

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.

Alkaline Manganese Batteries Type AA

Chemical: *alkaline manganese battery*

CAS No.: -

Classification: No criteria for classification or naming of chemical not required.

Concentration: 99 - <100 %

acc. CLP (GHS): The criteria for classification are not fulfilled.

Button cell CR2032, built-in

Chemical: *Button cell on circuit board (lithium metal battery)*

CAS No.: -

Classification: No criteria for classification or naming of chemical not required.

Concentration: 99 - <100 %

acc. CLP (GHS): The criteria for classification are not fulfilled.

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17 mL Fe-1

Chemical: *triazine derivate* CAS No.: -
 Classification: No criteria for classification or naming of chemical not required.
 TSCA Inventory: listed
 Concentration: < 1,00 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *acetate buffer solution* CAS No.: -
 Classification: No criteria for classification or naming of chemical not required.
 Formula: CH₃ COOH/K/Na•H₂ O
 TSCA Inventory: all listed
 KE No.: listed
 Concentration: 45 - <60 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

5 g Fe-2

Chemical: *L(+)-ascorbic acid* CAS No.: 50-81-7
 Classification: No criteria for classification or naming of chemical not required.
 Formula: C₆ H₈ O₆
 Pseudonym: vitamin C
 TSCA Inventory: listed
 REACH Reg. No.: exempt, Annex IV
 EC No.: 200-066-2
 RTECS: C17650000 MFCD: 00064328
 KE No.: KE-01947
 Concentration: 20 - <30 %
 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: 50 - <80 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

50 capsules NANOFIX pH 6.5-8.2

Chemical: *phenolred, sodium salt (pH indicator)* CAS No.: 34487-61-1
 Classification: H315, Skin Irrit. 2, H319, Eye Irrit. 2
 Formula: C₁₉ H₁₃ NaO₅ S
 Pseudonym: 4,4'-(1,1-dioxido-3H-2,1-benzoxathiol-3-ylidene)bis-phenol, sodium salt
 TSCA Inventory: listed
 EC No.: 252-057-8 MFCD: 00066901
 Concentration: 1 - <10 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

20 mL Cl₂ -2

Chemical: *potassium iodide* CAS No.: 7681-11-0
 Classification: H319, Eye Irrit. 2
 Formula: KI
 TSCA Inventory: listed
 REACH Reg. No.: YES, confidential
 EC No.: 231-659-4
 RTECS: TT29750000 MFCD: 00011405
 KE No.: not listed
 Concentration: 1 - <10 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

28 g Cl₂ -1



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Chemical: *boric acid* CAS No.: 10043-35-3
 Classification: H360FD, Repr. 1B
 Formula: H_3BO_3
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119486683-25-0024
SVHC listed: listed (18/06/2010)
 EC No.: 233-139-2
 RTECS: ED4550000
 KE No.: KE-03499
 Concentration: 0,5 - <5,5 %
 The classification refers to weight percent of the metal (according to CLP Regulation 2008/1272/EC Annex VI, 1.1.3.2 Note 1)
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Index No.: 005-007-00-2
 MFCD: 00011337

Correlation factor: x 0.17 (= %B)

Chemical: *tri-sodium citrate* CAS No.: 6132-04-3
 Classification: No criteria for classification or naming of chemical not required.
 Formula: $C_6H_5Na_3O_7 \cdot 2H_2O$
 TSCA Inventory: listed (CAS 68-04-2)
 REACH Reg. No.: 01-2119457027-40-xxxx
 EC No.: 200-675-3
 RTECS: GE8300000
 KE No.: KE-20843
 Concentration: 40 - <60 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate* CAS No.: 6283-63-2
 Classification: H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm.
 Formula: $C_{10}H_{16}N_2 \cdot H_2O$
 Pseudonym: N,N-diethylbenzene-1,4-diammonium sulfate
 TSCA Inventory: listed (CAS 6065-27-6)
 EC No.: 228-500-6
 RTECS: SS9625000
 Concentration: 1 - <5 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Index No.: 612-080-00-X
 MFCD: 00012993

Chemical: *potassium dihydrogen phosphate* CAS No.: 7778-77-0
 Classification: No criteria for classification or naming of chemical not required.
 Formula: KH_2PO_4
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119490224-41-XXXX
 EC No.: 231-913-4
 RTECS: TC6615500
 KE No.: KE-28622
 Concentration: 5 - <25 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

MFCD: 00011401

3.3 Remarks

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

4.1.1 After SKIN Contact

Not necessary.

4.1.2 After EYE Contact

Not necessary.

4.1.3 After INHALATION of vapours

Not necessary. ---

4.1.4 After ORAL Intake

Not necessary. ---

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4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

No additionally recommendations. ---

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

None.

5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

5.4 Additional information

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Not necessary.

6.2 Environmental precautions

not necessary

6.3 Methods and material for containment and cleaning up

Clean working area with water. Flush used 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.

7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage.

Storage class (VCI): 6.1D

Water hazard class (DE): 3

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

Calibration tube (5 mL)

Chemical: *water*

CAS No.: 7732-18-5

Alkaline Manganese Batteries Type AA

Chemical: *alkaline manganese battery*

CAS No.: -

Button cell CR2032, built-in

Chemical: *Button cell on circuit board (lithium metal battery)*

CAS No.: -

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17 mL Fe-1

Chemical: *triazine derivat*

CAS No.: -

Chemical: *acetate buffer solution*

CAS No.: -

5 g Fe-2

Chemical: *L(+)-ascorbic acid*

CAS No.: 50-81-7

Chemical: *sodium chloride*

CAS No.: 7647-14-5

50 capsules NANOFIX pH 6.5-8.2

Chemical: *phenolred, sodium salt (pH indicator)*

CAS No.: 34487-61-1

20 mL Cl₂ -2

Chemical: *potassium iodide*

CAS No.: 7681-11-0

28 g Cl₂ -1

Chemical: *boric acid*

CAS No.: 10043-35-3

DNEL: [derm] 392 mg/kg bw/day; [inh] 8.3 mg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 2.9 mg/L
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 0.5 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: [Bor][MAK] 1,8e/[STEL] 1,8e mg/m³

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: *tri-sodium citrate*

CAS No.: 6132-04-3

Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate*

CAS No.: 6283-63-2

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: *potassium dihydrogen phosphate*

CAS No.: 7778-77-0

8.2 Exposure controls

Not necessary.

8.2.1 Respiratory protection

Not necessary.

8.2.2 Hand protection

Not necessary.

8.2.3 Eye protection

Not necessary.

8.2.4 Skin protection

Not necessary.

8.2.5 Personal hygiene

Information not necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Calibration tube (5 mL)

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

6-8

Specific gravity:

1,00 g/cm³

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Alkaline Manganese Batteries Type AA

Appearance: solid Colour: black Odor: odorless

Button cell CR2032, built-in

Appearance: solid Colour: colored Odor: odorless
 Flammability (solid, gas): Do not transport damaged batteries. Special instruction necessary

17 mL Fe-1

Appearance: liquid Colour: slightly yellow Odor: acetic
 pH: 4-6

5 g Fe-2

Appearance: powder (solid) Colour: slightly yellow Odor: odorless

50 capsules NANOFIX pH 6.5-8.2

Appearance: solid (lyoph.) Colour: red Odor: odorless
 pH: 7,0
 Solubility in water: 0-100 %

20 mL Cl₂ -2

Appearance: liquid Colour: colourless Odor: alcoholic
 pH: 9
 Flash point: 24 °C
 Specific gravity: 0,93 g/cm³
 Solubility in water: 0-100 %

28 g Cl₂ -1

Appearance: powder (solid) Colour: colourless Odor: odorless
 pH: 6
 Solubility in water: 0-100 %

9.2 Other information

Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

None

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

None.

10.4 Conditions to avoid

Not known. ---

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored - protected against short circuits. 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.

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Calibration tube (5 mL)

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

CAS No.: 7732-18-5

Alkaline Manganese Batteries Type AA

Chemical: *alkaline manganese battery*

CAS No.: -

Button cell CR2032, built-in

Chemical: *Button cell on circuit board (lithium metal battery)*

CAS No.: -

17 mL Fe-1

Chemical: *triazine derivate*
 TSCA Inventory: listed

CAS No.: -

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

CAS No.: -

5 g Fe-2

Chemical: *L(+)-ascorbic acid*
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-01947
 LD50_{orl rat}: 11900 mg/kg
 LD50_{ivn mus}: 518 mg/kg

CAS No.: 50-81-7

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

50 capsules NANOFIX pH 6.5-8.2

Chemical: *phenolred, sodium salt (pH indicator)*
 TSCA Inventory: listed

CAS No.: 34487-61-1

20 mL Cl₂ -2

Chemical: *potassium iodide*
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: not listed
 LD50_{orl rat}: 2779 mg/kg

CAS No.: 7681-11-0

28 g Cl₂ -1

Chemical: *boric acid*
 TSCA Inventory: listed
 Australia NICNAS: not listed
 Japan CSCL/PRTR: PRTR: ≥1,0%B class I, Japan PDSCL: not listed
 Japan ISHL: not listed
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: KE-03499
 LD50_{orl rat}: >3765 mg/kg
 LC50_{ihl rat}: > 2 mg/m³
 LD50_{drm rat}: >2000 mg/kg

CAS No.: 10043-35-3

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

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EU carcinogen: R_D 1B, R_F 1B
TRGS 905 (DE): R_E 2, R_F 2

Chemical: *tri-sodium citrate* CAS No.: 6132-04-3
TSCA Inventory: listed (CAS 68-04-2)
Korea Exist.Chem.Inventory: KE-20843
LD50_{orl rat}: >8000 mg/kg

Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate* CAS No.: 6283-63-2
TSCA Inventory: listed (CAS 6065-27-6) California Proposition 65 List: not listed
Australia NICNAS: not listed Canada CEPA 1999: not listed
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: not listed
South Korea TCCA: not listed
LD50_{orl rat}: 497 mg/kg

Chemical: *potassium dihydrogen phosphate* CAS No.: 7778-77-0
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-28622
LD50_{orl rat}: 4640 mg/kg
LD50_{drm rbt}: >4640 mg/kg

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

Calibration tube (5 mL)

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

Alkaline Manganese Batteries Type AA

Chemical: *alkaline manganese battery* CAS No.: -

Button cell CR2032, built-in

Chemical: *Button cell on circuit board (lithium metal battery)* CAS No.: -

17 mL Fe-1

Chemical: *triazine derivate* CAS No.: -
Storage class (VCI): 12-13

Chemical: *acetate buffer solution* CAS No.: -
Storage class (VCI): 12

5 g Fe-2

Chemical: *L(+)-ascorbic acid* CAS No.: 50-81-7
Water hazard class (DE): 1 WGK No.: 0737
Storage class (VCI): 13

Chemical: *sodium chloride* CAS No.: 7647-14-5
Water hazard class (DE): 1
Storage class (VCI): 12-13

50 capsules NANOFIX pH 6.5-8.2

Chemical: *phenolred, sodium salt (pH indicator)* CAS No.: 34487-61-1
Water hazard class (DE): 2
Storage class (VCI): 12-13

20 mL Cl₂ -2

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Chemical: *potassium iodide* CAS No.: 7681-11-0
 LC50_{fish/96h}: 2190 mg/L
 Water hazard class (DE): 1
 Dispersion coefficient_(octanol-water): 0.04
 Storage class (VCI): 12-13

28 g Cl₂ -1

Chemical: *boric acid* CAS No.: 10043-35-3
 PNEC_(fresh water): 2.9 mg/L
 PNEC = Predicted No Effect Concentration
 LC50_{fish/96h}: [4d] 79.7 mg/L
 EC50_{daphnia/48h}: 91-165 mg/L
 IC50_{scenedesmus quadricauda/72h}: [72h] 52.4 mg/L
 EC10_{pseudomonas putita/16h}: [EC10] 10 mg/L
 Water hazard class (DE): 1 WGK No.: 0315
 Dispersion coefficient_(octanol-water): -1.09
 Storage class (VCI): 6.1 D

Chemical: *tri-sodium citrate* CAS No.: 6132-04-3
 LC50_{fish/96h}: 18-32 g/L
 EC50_{daphnia/48h}: 5.6-10 g/L
 EC50_{chlorella vulgaris/5d}: >18-32 g/L
 EC10_{pseudomonas putita/16h}: EC50_{ps. fluorescens/8h}: >1.8-3.2 g/L
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate* CAS No.: 6283-63-2
 Water hazard class (DE): 3
 Storage class (VCI): 12-13

Chemical: *potassium dihydrogen phosphate* CAS No.: 7778-77-0
 LC50_{leuciscus idus/96h}: 90048h mg/L
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

- 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

Batteries must be collected separately and disposed acc. law regulations (electronic waste, WEEE). Further:
 Not necessary.

13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according the transport regulations
 Lithium metal batteries in equipment, not restricted, PI 970: Section II (button cell), No entry in AWB necessary

14.5 Environmental hazards

none

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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
 MN Leaflet/User manual, also see www.mn-net.com
 Look for your country-specific regulations.

15.2 Chemical safety assessment

SECTION 16: Other information

16.1 List of H and P phrases

16.1.1 List of relevant H phrases

16.1.2 List of relevant P phrases

16.2 Training advice

Regular safety training.

16.3 Recommended restriction on use

None

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.
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16.5 Sources of key data

Regulation 790/2009/EU adaptation of CLP regulation 1272/2008/EU to technical and scientific progress
 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
 TRGS 900, German engineering rules governing limits in air at work, updated 03/2018
 SUVA .CH, Limits in air at work 2009, revised on 01.2009
 KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU