

Safety Data Sheet

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

REF: 934113

Photometer PF-3 Pool

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Printing date: 01.10.2019

Date of issue: 21.06.2018

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

1.1 Product identifier

REF 934113
Product name Photometer PF-3 Pool

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
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

Button cell CR2032, built-in

Do not need labelling as hazardous

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Signal word -

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: -

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. ---

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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: H_2O

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.

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: $C_{19}H_{13}NaO_5S$

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 Cl_2 -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 Cl_2 -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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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/cm ³	

Alkaline Manganese Batteries Type AA

Appearance: solid	Colour: black	Odor: odorless
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Button cell CR2032, built-in

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

50 capsules NANOFIX pH 6.5-8.2

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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/cm ³	
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.

Calibration tube (5 mL)

Chemical:	<i>water</i>	CAS No.: 7732-18-5
TSCA Inventory:	listed	
Korea Exist.Chem.Inventory:	KE-35400	

Alkaline Manganese Batteries Type AA

Chemical:	<i>alkaline manganese battery</i>	CAS No.: -
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Button cell CR2032, built-in

Chemical:	<i>Button cell on circuit board (lithium metal battery)</i>	CAS No.: -
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50 capsules NANOFIX pH 6.5-8.2

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Chemical: *phenolred, sodium salt (pH indicator)* CAS No.: 34487-61-1
 TSCA Inventory: listed

20 mL Cl₂ -2

Chemical: *potassium iodide* CAS No.: 7681-11-0
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: not listed
 LD50_{orl rat}: 2779 mg/kg

28 g Cl₂ -1

Chemical: *boric acid* CAS No.: 10043-35-3
 TSCA Inventory: listed California Proposition 65 List: not listed
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes
 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

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.: -

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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

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