

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

NANOCOLOR total Phosphate 5 Robot Page: 1/11

Printing date: 06.01.2021 Date of issue: 17.03.2020

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

1.1 **Product identifier**

RFF 985681

Product name NANOCOLOR total Phosphate 5 Robot

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.

20 x 35 mg NANOFIX total Phosphate 5 (R0)

1 x 50 mL total Phosphate (A) 1 x 2 g total Phosphate (B1) 1 x 5 mL total Phosphate (B2) 1 x 6 mL total Phosphate (C)

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**

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







GHS03

GHS07

Signal word	DANGER

Hazard identification	Hazard classes/categories
H272	Ox. Sol. 2
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H317	Skin Sens. 1
H319	Eye Irrit. 2
H334	Resp. Sens. 1
H335	STOT SE 3

2.1 Classification of the substance or mixture

35 mg NANOFIX total Phosphate 5 (R0)

www.mn-net.com

US:

ACHEREY-NAGE (MN)

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984 Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272

Version: M V 4.12.0 E-mail: info@mn-net.com E-mail: sales-ch@mn-net.com E-mail: sales-fr@mn-net.com E-mail: sales-us@mn-net.com



Safety Data Sheet

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

REF: 985681 NANOCOLOR total Phosphate 5 Robot Page: 2/11

Printing date: 06.01.2021 Date of issue: 17.03.2020







CHSU3

CHSU

GHS08

Signal word DANGER

Hazard identification	Hazard classes/categories
H272	Ox. Sol. 2
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H317	Skin Sens. 1
H319	Eye Irrit. 2
H334	Resp. Sens. 1
H335	STOT SE 3

50 mL total Phosphate (A)

Do not need labelling as hazardous

Signal word -

No hazard class

2 g total Phosphate (B1)

Do not need labelling as hazardous

Signal word

No hazard class

5 mL total Phosphate (B2)

Do not need labelling as hazardous

Signal word -

No hazard class

6 mL total Phosphate (C)



GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
11045	01-1 11+ 0

H315 Skin Irrit. 2 H319 Eye Irrit. 2

2.2 Label elements

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). Inner packages up to 10 mL need max. 2 symbols (Annex I - 1.5.2.4.1 / 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). This labelling exemption is NOT valid for sensibilizing substances.

Oxidizing mixtures with signal word: **DANGER** and **H272** must not be labelled with H and P phrases **until 125 mL**.

35 mg NANOFIX total Phosphate 5 (R0)

www.mn-net.com

US:



MACHEREY-NAGEL GmbH & Co. KG \cdot Neumann-Neander-Str. 6–8 \cdot 52355 Düren \cdot Germany

DE/international: CH: FR:

ACHEREY-NAGEI



Safety Data Sheet

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

REF: 985681 NANOCOLOR total Phosphate 5 Robot Page: 3/11

Date of issue: 17.03.2020 Printing date: 06.01.2021







Signal word: DANGER

H317, H334

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Avoid breathing dust/vapours. Wear protective gloves/eye protection. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

50 mL total Phosphate (A)

Do not need labelling as hazardous Signal word: -

2 g total Phosphate (B1)

Do not need labelling as hazardous Signal word: -

5 mL total Phosphate (B2)

Do not need labelling as hazardous Signal word: -

6 mL total Phosphate (C)



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, inhalation of vapours/dust, skin contact, impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts. 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

35 mg NANOFIX total Phosphate 5 (R0)

www.mn-net.com

US:

ACHEREY-NAGE (MN

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR:



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

REF: 985681 NANOCOLOR total Phosphate 5 Robot Page: 4/11

Date of issue: 17.03.2020 Printing date: 06.01.2021

> sodium peroxodisulfate CAS No.: 7775-27-1 Chemical:

H272, Ox. Liq. 2, H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H317, Skin Sens. 1, H319, Eye Irrit. 2, Classification:

H334, Resp. Sens. 1, H335, STOT SE 3 Formula: $Na_2 O_8 S_2$

sodium persulfate Pseudonym:

TSCA Inventory: listed

REACH Reg. No.: 01-2119495975-15-xxxx

231-892-1 EC No.: RTECS: SE0525000 KE-12369 KE No.: Concentration: 80 - <100 %

acc. CLP (GHS): H272, Ox. Liq. 2, H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H317, Skin Sens. 1, H319, Eye Irrit. 2,

H334, Resp. Sens. 1, H335, STOT SE 3

50 mL total Phosphate (A)

sulfuric acid (diluted < 5 %) Chemical: CAS No.: 7664-93-9d

Classification: H315, Skin Irrit. 2, H319, Eye Irrit. 2

Formula: H₂ SO₄ •H₂ O

TSCA Inventory: listed

REACH Reg. No.: 01-2119458838-20-xxxx

231-639-5 EC No.: Indice No.: 016-020-00-8

RTECS: WS5600000 KE No.: KE-32570 Concentration: 1 - <5 %

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

2 g total Phosphate (B1)

Chemical: sodium L(+)-ascorbate CAS No.: 134-03-2

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

Formula: C₆ H₇ NaO₆

Pseudonym: L-ascorbic acid, sodium salt (1:1)

TSCA Inventory: listed 205-126-1 EC No.: Concentration: 90 - <100 %

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

5 mL total Phosphate (B2)

Chemical: 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 90 - <100 % Concentration:

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

6 mL total Phosphate (C)

Chemical: ammonium heptamolybdate CAS No.: 12054-85-2

MFCD:

00167059

US:

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

Formula: H₂₄ Mo₇ N₆ O₂₄ Pseudonym: hexaammonium heptamolybdate TSCA Inventory: listed (CAS 11098-84-3) REACH Reg. No.: 01-2119498057-28-xxxx

EC No.: 234-722-4 RTECS: QA5076000 / QA4900000

KE No .: not listed Concentration: Correlation factor: x 0.58 (= %Mo) 2 - < 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.

www.mn-net.com

MACHEREY-NAGE $\langle MN \rangle$

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR:



CAS No.: 7664-93-9d

Safety Data Sheet

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

REF: 985681 NANOCOLOR total Phosphate 5 Robot Page: 5/11

Printing date: 06.01.2021 Date of issue: 17.03.2020

> Chemical: sulfuric acid (diluted < 5 %)

H315, Skin Irrit. 2, H319, Eye Irrit. 2 Classification:

Formula: H₂ SO₄ •H₂ O

TSCA Inventory: listed

REACH Reg. No.: 01-2119458838-20-xxxx

EC No.: 231-639-5 Indice No.: 016-020-00-8

WS5600000 RTFCS KE No .: KE-32570 Concentration: 5 - <15 %

acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2

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

Remove contaminated clothing immediately. Rinse the affected skin or mucous membrane thoroughly for min. 15 minutes under running water. (If possible) use soap. Avoid neutralisation. Then apply a loose bandage.

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

After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. 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

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. Spray any vapours released with water. Retent fire water. Use only acid-resistant safety equipment.

For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.

5.4 Additional information

Danger for environment only in the event of a large-scale leakage or formation of hazardous substances. ---

www.mn-net.com

US:

MACHEREY-NAGE (MN)

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR:

ACHEREY-NAGEI



Safety Data Sheet

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

NANOCOLOR total Phosphate 5 Robot Page: 6/11

Printing date: 06.01.2021 Date of issue: 17.03.2020

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. Wear suitable protective gloves (see 8.2.2). Wear eye protection. 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

see information in section 5.4 ---

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. Use a safety bottle when shaking test tubes

7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage. Storage class (VCI):

Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

7.3 Specific end use(s)

7.2.1

Product for analytical use.

Water hazard class (DE)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

35 mg NANOFIX total Phosphate 5 (R0)

CAS No.: 7775-27-1 Chemical: sodium peroxodisulfate

not listed NIOSH: [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

50 mL total Phosphate (A)

Chemical: sulfuric acid CAS No.: 7664-93-9d

50 μg/m³ DNEL = Derived No-Effect Level (for workers)

 $\begin{array}{ccc} PNEC_{(fresh\ water)}: & 2.5\ \mu g/L \\ PNEC = Predicted\ No\ Effected\ Concentration \end{array}$ 0.1 E mg/m³ TRGS 900 (DE):

Short-term exposure factor:

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 0,1 e mg/m³

i: NTP Report on Carcinogens (RoC) List Yes (Known to be a human carcinogen); TWA 1 mg/m³ [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

2 g total Phosphate (B1)

Chemical: sodium L(+)-ascorbate CAS No.: 134-03-2

5 mL total Phosphate (B2)

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

www.mn-net.com

US:



MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984 Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 +1 484 821 1272 Fax:

Version: M V 4.12.0 E-mail: info@mn-net.com E-mail: sales-ch@mn-net.com E-mail: sales-fr@mn-net.com E-mail: sales-us@mn-net.com



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

NANOCOLOR total Phosphate 5 Robot Page: 7/11

Printing date: 06.01.2021 Date of issue: 17.03.2020

6 mL total Phosphate (C)

CAS No : 12054-85-2 ammonium heptamolybdate Chemical:

TRGS 900 (DE): [Mo] 5 E mg/m³ E/e respirable

SUVA(CH) MAK value: [Mo] 5 e mg/m³

Chemical: sulfuric acid CAS No.: 7664-93-9d

50 µg/m³ Level (for workers) DNEL: DNEL = Derived No-Effect PNEC (fresh water): 2.5 µg/L PNEC = Predicted No Effected Concentration 0.1 E mg/m³ TRGS 900 (DE):

Short-term exposure factor: 1 (I)

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value:

A: NTP Report on Carcinogens (RoC) List Yes (Known to be a human carcinogen); TWA 1 mg/m³ [TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period NIOSH:

OSHA: [TWA] 1 mg/m³

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

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

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

8.2.4

Recommended to avoid contamination with these hazards.

8.2.5

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

35 mg NANOFIX total Phosphate 5 (R0)

Appearance: solid (lyoph.) Colour: colourless Odor: odorless

Solubility in water: 0-100 %

50 mL total Phosphate (A)

Colour -Odor: -Appearance: -

2 g total Phosphate (B1)

Appearance: powder (solid) Colour: white Odor: odorless

[10%] 6-7.5 0-38 % Solubility in water:

5 mL total Phosphate (B2)

Appearance: liquid Colour: colourless Odor: odorless

6 mL total Phosphate (C)

Appearance: liquid Colour: slightly yellow Odor: odorless

pH:

Specific gravity: 1,11 g/cm³ Solubility in water: 0-100 %

www.mn-net.com

MACHEREY-NAGE (MN)

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR: US:



Safety Data Sheet

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

NANOCOLOR total Phosphate 5 Robot Page: 8/11

Printing date: 06.01.2021 Date of issue: 17.03.2020

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

No further data available.

10.4 Conditions to avoid

Not necessary. Observe labeled storage temperature. ---

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.

35 mg NANOFIX total Phosphate 5 (R0)

Chemical: sodium peroxodisulfate CAS No.: 7775-27-1

TSCA Inventory: California Proposition 65 List: not listed listed Yes (PEC/18) Australia NICNAS: Canada CEPA 1999: DSL Yes

not listed, Japan PDSCL: not listed Japan CSCL/PRTR:

Japan ISHL: listed ≥1,0%/≥0,1%, Article 57-2 (SDS required)

South Korea TCCA: not listed Korea Exist.Chem.Inventory: KE-12369 902 mg/kg LD50_{orl rat}:

Acute Effects: Cause after oral intake, inhalation of vapours/dust, skin contact, impairments of health when ingested in small

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.

50 mL total Phosphate (A)

sulfuric acid Chemical: CAS No.: 7664-93-9d

TSCA Inventory: listed California Proposition 65 List: not listed

ACGIH: 1 ppm

Exposure Routes: inhalation, ingestion, skin and/or eye contact Target Organs: Eyes, skin, respiratory system, teeth

Symptoms: irritation eyes, skin, nose

Australia NICNAS: Canada CEPA 1999: DSL Yes not listed

not listed, Japan PDSCL: Deleterious Substance Japan CSCL/PRTR: Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-2 (SDS required)

South Korea TCCA: Accident Precaution Chemical Yes

Korea Exist.Chem.Inventory: KE-32570 LD50_{orl rat}: 2140 mg/kg

LC50_{ihl rat}: [8h] 600/ [4h] 850 mg/m³

TRGS 905 (DE): R_F C

2 g total Phosphate (B1)

Chemical: CAS No.: 134-03-2 sodium L(+)-ascorbate

TSCA Inventory: listed

LD50_{orl rat}: [acid] 11.9 g/kg

www.mn-net.com



MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR: US:



Safety Data Sheet

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

REF: 985681 NANOCOLOR total Phosphate 5 Robot Page: 9/11

Date of issue: 17.03.2020 Printing date: 06.01.2021

5 mL total Phosphate (B2)

Chemical: CAS No.: 7732-18-5

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

6 mL total Phosphate (C)

Chemical: ammonium heptamolybdate CAS No.: 12054-85-2

listed (CAS 11098-84-3) TSCA Inventory: Japan ISHL: listed ≥1,0%/≥0,1%,

Korea Exist.Chem.Inventory: not listed

CAS No.: 7664-93-9d Chemical: sulfuric acid

TSCA Inventory: listed California Proposition 65 List: not listed

ACGIH: 1 ppm

Exposure Routes: inhalation, ingestion, skin and/or eye contact

Target Organs: Eyes, skin, respiratory system, teeth

Symptoms: irritation eyes, skin, nose

Australia NICNAS: not listed Canada CEPA 1999: DSL Yes

not listed, Japan PDSCL: Deleterious Substance Japan CSCL/PRTR: Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-2 (SDS required)

South Korea TCCA: Accident Precaution Chemical Yes

Korea Exist.Chem.Inventory: KE-32570

LD50_{orl rat}: 2140 mg/kg

LC50_{ihl rat}: [8h] 600/ [4h] 850 mg/m³

TRGS 905 (DE):

SECTION 12: Ecological information

12.1

Following information is valid for pure substances.

35 mg NANOFIX total Phosphate 5 (R0)

CAS No.: 7775-27-1 sodium peroxodisulfate

Water hazard class (DE): WGK No.: 1352

Storage class (VCI): 51B

50 mL total Phosphate (A)

Chemical: sulfuric acid CAS No.: 7664-93-9d

PNEC_(fresh water):
PNEC = Predicted No Effected Concentration 2.5 µg/L

LC50_{fish/96h}: [NOEC, 65d] 25 µg/L

EC50_{daphnia/48h}: 100 mg/L EC10pseudomonas putita/16h: [72h] 100 mg/L

Water hazard class (DE): WGK No.: 0182

Storage class (VCI): 8 R

2 g total Phosphate (B1)

Chemical: sodium L(+)-ascorbate CAS No.: 134-03-2

5 mL total Phosphate (B2)

Chemical: CAS No.: 7732-18-5

6 mL total Phosphate (C)

, ammonium heptamolybdate Chemical: CAS No.: 12054-85-2

Water hazard class (DE): WGK No.: 0637

12-13 Storage class (VCI):

www.mn-net.com

US:



MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984 Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272 E-mail: sales-ch@mn-net.com E-mail: sales-fr@mn-net.com E-mail: sales-us@mn-net.com

Version: M V 4.12.0 E-mail: info@mn-net.com



Safety Data Sheet

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

REF: 985681 NANOCOLOR total Phosphate 5 Robot Page: 10/11

Printing date: 06.01.2021 Date of issue: 17.03.2020

> sulfuric acid CAS No.: 7664-93-9d Chemical:

PNEC (fresh water):
PNEC = Predicted No Effected Concentration 2.5 µg/L

 $LC50_{fish/96h}$: [NOEC, 65d] 25 µg/L

 $EC50_{daphnia/48h}$: 100 mg/L EC10_{pseudomonas putita/16h}: Water hazard class (DE): [72h] 100 mg/L WGK No.: 0182

8 B Storage class (VCI):

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

SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according the transport regulations because **De Minimis** (excepted quantities: ≤ 1 mL/ $\Sigma \le 100$ mL) = ADR 3.5.1.4 **De Minimis** (excepted quantities: ≤ 1 mL/ $\Sigma \le 100$ mL) = IATA DRG 2.6.10

14.5 **Environmental hazards**

none, contains only small quantities of hazardous substances

14.6 Special precautions for user

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 ---

www.mn-net.com

US:

AACHEREY-NAGE (MN)

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR:



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

NANOCOLOR total Phosphate 5 Robot Page: 11/11 Printing date: 06.01.2021 Date of issue: 17.03.2020

SECTION 16: Other information

16.1 List of H and P phrases

16 1 1 List of relevant H phrases

May intensify fire; oxidizer. H272 H302 Harmful if swallowed. H315 Causes skin irritation.

May cause an allergic skin reaction. H317 Causes serious eye irritation. H319

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

16.1.2 List of relevant P phrases

Keep away from heat/sparks/open flames/hot surfaces. No smoking. P210

P261sh Avoid breathing dust/vapours.

Wash with water thoroughly after handling. P264W P280sh

Wear protective gloves/eye protection.

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P301+312

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P330 Rinse mouth

If experiencing respiratory symptoms: Call a POISON CENTER/doctor. P342+311

Store in a well-ventilated place. Keep container tightly closed. P403+233

16.2 Training advice

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

16.3 Recommended restriction on use

Only for professional user.

Look about employee restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!

Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or for DE §§ 11-13 MuSchG 2017)! An individual package of this product or test kit has a moderate hazardous potential.

16.4 Further information

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

MACHEREY-NAGEL GmbH & Co. KG makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly MACHEREY-NAGEL GmbH & Co. KG will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

16.5 Sources of key data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

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

www.mn-net.com

US:

AACHEREY-NAGE (MN)

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

DE/international: CH: FR: