

# Safety Data Sheet

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

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

### 1.1 Product identifier

REF 985044  
 Product name NANOCOLOR Hardness Ca/Mg

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 6 mL Hardness Ca/Mg (R0)  
 1 x 5 mL Hardness Ca/Mg (R3)  
 1 x 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

### 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](mailto:sds@mn-net.com) ([msds@mn-net.com](mailto: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

##### 6 mL Hardness Ca/Mg (R0)

Signal word Do not need labelling as hazardous  
 -

No hazard class

##### 5 mL Hardness Ca/Mg (R3)

Signal word Do not need labelling as hazardous  
 -

No hazard class

##### 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

Signal word Do not need labelling as hazardous  
 -

No hazard class



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## 2.2 Label elements

### 6 mL Hardness Ca/Mg (R0)

Do not need labelling as hazardous  
Signal word: -

### 5 mL Hardness Ca/Mg (R3)

Do not need labelling as hazardous  
Signal word: -

### 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

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. ---

### Information pertaining to particular risks to human and possible symptoms

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### Information pertaining to particular risks to the environment

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### Other hazards

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 6 mL Hardness Ca/Mg (R0)

Chemical:	<i>potassium chloride</i>	CAS No.:	7447-40-7
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	KCl		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119539416-36-xxxx		
EC No.:	231-211-8		
RTECS:	TS8050000	MFCD:	00011360
KE No.:	KE-29086		
Concentration:	1 - <10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	<i>Borate buffer solution</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	H <sub>3</sub> BO <sub>3</sub> /Na•H <sub>2</sub> O		
TSCA Inventory:	all listed		
<b>SVHC listed:</b>	<b>yes</b>		
Concentration:	0,1 - <2 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

#### 5 mL Hardness Ca/Mg (R3)

Chemical:	<i>ethylendioxybis(ethylenitrilo)-tetraacetic acid (Titriplex® VI)</i>	CAS No.:	67-42-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C <sub>14</sub> H <sub>24</sub> N <sub>2</sub> O <sub>10</sub>		
Pseudonym:	3,12-bis(carboxymethyl)-6,9-dioxa-3,12-diazatetradecanedioic acid		
TSCA Inventory:	listed		
EC No.:	200-651-2		
RTECS:	AH3760000	MFCD:	0004291
Concentration:	< 10,00 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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## 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

Chemical: *Phthalein purple (phthalein complexon)*

CAS No.: 2411-89-4

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

Formula:  $C_{32}H_{32}N_2O_{12}$

Pseudonym:

N,N'-[(3-oxo-1(3H)-isobenzofuranylidene)bis[(6-hydroxy-5-methyl-3,1-phenylene)methylene]]bis[N-(carboxymethyl)-glycine

TSCA Inventory: listed

EC No.: 219-318-8

MFCD:

00005911

Concentration: 1 - <10 %

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%.

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## 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. ---

### 4.2 Most important symptoms and effects, both acute and delayed

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### 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

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe vapours. 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

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

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

#### 6 mL Hardness Ca/Mg (R0)

Chemical: *potassium chloride*

CAS No.: 7447-40-7

Chemical: *Borate buffer solution*

CAS No.: -

#### 5 mL Hardness Ca/Mg (R3)

Chemical: *ethylenedioxybis(ethylenitrilo)-tetraacetic acid (Titriplex® VI)*

CAS No.: 67-42-5

#### 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

Chemical: *Phthalein purple (phthalein complexon)*

CAS No.: 2411-89-4

### 8.2 Exposure controls

Not necessary. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

#### 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

#### 6 mL Hardness Ca/Mg (R0)

Appearance: liquid  
pH:

Colour: colourless  
10

Odor: odorless

#### 5 mL Hardness Ca/Mg (R3)

Appearance: liquid

Colour: colourless

Odor: odorless

#### 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

Appearance: solid (lyoph.)  
pH:

Colour: colored  
7-8

Odor: odorless

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## 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

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## 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. Observe labeled storage temperature. ---

### 10.5 Incompatible materials

Not known.

### 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.

#### 6 mL Hardness Ca/Mg (R0)

Chemical: *potassium chloride*  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-29086  
 LD50<sub>orl rat</sub>: 2600 mg/kg

CAS No.: 7447-40-7

Chemical: *Borate buffer solution*  
 TSCA Inventory: all listed  
 Japan CSCL/PRTR: PRTR: >1,0% B class I

CAS No.: -

#### 5 mL Hardness Ca/Mg (R3)

Chemical: *ethylenedioxybis(ethylenitrilo)-tetraacetic acid (Titriplex® VI)*  
 TSCA Inventory: listed  
 LD50<sub>orl rat</sub>: 3587 mg/kg

CAS No.: 67-42-5

#### 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

Chemical: *Phthalein purple (phthalein complexon)*  
 TSCA Inventory: listed

CAS No.: 2411-89-4

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 6 mL Hardness Ca/Mg (R0)

Chemical: *potassium chloride*  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

CAS No.: 7447-40-7

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Chemical: *Borate buffer solution*

CAS No.: -

### 5 mL Hardness Ca/Mg (R3)

Chemical: *ethylenedioxybis(ethylenitrilo)-tetraacetic acid (Titriplex® VI)*

CAS No.: 67-42-5

Water hazard class (DE): 2

Storage class (VCI): 12-13

### 20x 100 mg NANOFIX Hardness Ca/Mg (R2)

Chemical: *Phthalein purple (phthalein complexon)*

CAS No.: 2411-89-4

Water hazard class (DE): 2

## 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

Not necessary.

### 13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains.

## SECTION 14: Transport information

14.1 - 14.4 Not 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](http://www.mn-net.com)  
 Look for your country-specific regulations.

### 15.2 Chemical safety assessment

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## 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

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## 16.2 Training advice

Regular safety training.

## 16.3 Recommended restriction on use

None

## 16.4 Further information

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## 16.5 Sources of key data

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

Regulation 487/2013/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress

Regulation 669/2018/EU, 4<sup>th</sup> 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