

# 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 985871  
 Product name NANOCOLOR Peroxide 2

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 21x 10 mg NANOFIX Peroxide 2 (R3)  
 20 x 1 mL Peroxide 2 (R0)  
 1 x 5 mL Peroxide 2 (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

**21x 10 mg NANOFIX Peroxide 2 (R3)**

Signal word Do not need labelling as hazardous  
 -

No hazard class

**1 mL Peroxide 2 (R0)**

Signal word Do not need labelling as hazardous  
 -

No hazard class

**5 mL Peroxide 2 (R2)**

Signal word Do not need labelling as hazardous  
 -

No hazard class



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## 2.2 Label elements

### 21x 10 mg NANOFIX Peroxide 2 (R3)

Do not need labelling as hazardous  
Signal word: -

### 1 mL Peroxide 2 (R0)

Do not need labelling as hazardous  
Signal word: -

### 5 mL Peroxide 2 (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

#### 21x 10 mg NANOFIX Peroxide 2 (R3)

Chemical:	<i>peroxidase</i>	CAS No.:	9003-99-0
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	Enzyme Comm. No. 1.11.1.7,origin: horseradish		
TSCA Inventory:	listed		
EC No.:	232-668-6	MFCD:	00071339
Concentration:	< 1.00 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

#### 1 mL Peroxide 2 (R0)

Chemical:	<i>citrate buffer solution</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed		
KE No.:	listed		
Concentration:	1 - <10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

#### 5 mL Peroxide 2 (R2)

Chemical:	<i>tetramethylbenzidine</i>	CAS No.:	54827-17-7
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C <sub>16</sub> H <sub>20</sub> N <sub>2</sub>		
Pseudonym:	3,3',5,5'-tetramethyl-[1,1'-biphenyl]-4,4'-diamine		
TSCA Inventory:	listed		
EC No.:	259-364-6		
RTECS:	DV2300000	MFCD:	00007778
Concentration:	< 1.00 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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Chemical:	<i>dimethyl sulfoxide</i>	CAS No.:	67-68-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C <sub>2</sub> H <sub>6</sub> OS		
Pseudonym:	DMSO, 1,1'-sulfinylbis-methane		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119431362-50-xxxx		
EC No.:	200-664-3		
RTECS:	PV6210000	MFCD:	00002089
KE No.:	KE-32367		
Concentration:	80 - <100 %		
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.

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## 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): 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

#### 21x 10 mg NANOFIX Peroxide 2 (R3)

Chemical: *peroxidase*

CAS No.: 9003-99-0

#### 1 mL Peroxide 2 (R0)

Chemical: *citrate buffer solution*

CAS No.: -

#### 5 mL Peroxide 2 (R2)

Chemical: *tetramethylbenzidine*

CAS No.: 54827-17-7

Chemical: *dimethyl sulfoxide*

CAS No.: 67-68-5

DNEL: 394<sub>inh</sub> mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 17 mg/L

PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 50 ppm / 160 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 2 (I), H, Z

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

SUVA(CH) MAK value: 50 ppm / 160 mg/m<sup>3</sup>

### 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.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 21x 10 mg NANOFIX Peroxide 2 (R3)

Appearance: solid (lyoph.)      Colour: colourless      Odor: odorless  
pH:      6-8

#### 1 mL Peroxide 2 (R0)

Appearance: liquid      Colour: colourless      Odor: odorless  
Solubility in water:      0-100 %

#### 5 mL Peroxide 2 (R2)

Appearance: liquid      Colour: colourless      Odor: fusty, mouldy  
pH:      6-8  
Flash point:      95 °C  
Specific gravity:      1,09 g/cm<sup>3</sup>  
Solubility in water:      0-100 %

### 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.

#### 21x 10 mg NANOFIX Peroxide 2 (R3)

Chemical:      *peroxidase*      CAS No.: 9003-99-0  
TSCA Inventory:      listed

#### 1 mL Peroxide 2 (R0)

Chemical:      *citrate buffer solution*      CAS No.: -  
TSCA Inventory:      all listed  
Korea Exist.Chem.Inventory: listed

#### 5 mL Peroxide 2 (R2)

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Chemical: *tetramethylbenzidine* CAS No.: 54827-17-7  
 TSCA Inventory: listed  
 LD50<sub>ipr rat</sub>: 135 mg/kg

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-32367  
 LD50<sub>orl rat</sub>: 14.5 g/kg  
 LD50<sub>drm rat</sub>: 40 g/kg

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 21x 10 mg NANOFIX Peroxide 2 (R3)

Chemical: *peroxidase* CAS No.: 9003-99-0  
 Water hazard class (DE): 1 WGK No.: n.n.  
 Storage class (VCI): 13

#### 1 mL Peroxide 2 (R0)

Chemical: *citrate buffer solution* CAS No.: -  
 Water hazard class (DE): 0  
 Storage class (VCI): 12

#### 5 mL Peroxide 2 (R2)

Chemical: *tetramethylbenzidine* CAS No.: 54827-17-7  
 Water hazard class (DE): 3  
 Storage class (VCI): 12-13

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5  
 PNEC<sub>(fresh water)</sub>: 17 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50<sub>fish/96h</sub>: 38.5 g/L  
 EC50<sub>daphnia/48h</sub>: 24.6 g/L  
 EC10<sub>pseudomonas putida/16h</sub>: EC/16h: 7100 mg/L  
 Water hazard class (DE): 1 WGK No.: 5050  
 Dispersion coefficient<sub>(octanol-water)</sub>: -1.35  
 Storage class (VCI): 12

### 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.

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## 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

### 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 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  
 Regulation 1480/2018/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 03/2019  
 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