

# 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 918995  
 Product name NANOCOLOR BOD5 Nutrient mixture PLUS NATH

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.

10 x 190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized  
 10 x 520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized

### 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

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### 2.1 Classification of the substance or mixture

**190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized**

Signal word Do not need labelling as hazardous  
 -

No hazard class

**520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized**

Signal word Do not need labelling as hazardous  
 -

No hazard class

### 2.2 Label elements

**190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized**  
 Do not need labelling as hazardous  
 Signal word: -



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## 520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized

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

#### 190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized

Chemical: *N-allylthiourea*

CAS No.: 109-57-9

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

Formula: C<sub>4</sub>H<sub>8</sub>N<sub>2</sub>S

Pseudonym: N-2-propen-1-yl-thiourea

TSCA Inventory: listed

EC No.: 203-683-5

RTECS: YR8050000

MFCD:

00004940

KE No.: KE-29756

Concentration: 3 - &lt;10 %

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

Chemical: *magnesium sulfate*

CAS No.: 7487-88-9

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

Formula: MgSO<sub>4</sub>

TSCA Inventory: listed

REACH Reg. No.: 01-2119486789-11-xxxx

EC No.: 231-298-2

RTECS: OM4500000

KE No.: KE-22752

Concentration: 80 - &lt;97 %

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

#### 520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized

Chemical: *ammonium chloride*

CAS No.: 12125-02-9

Classification: H302, Acute Tox. 4 oral, H319, Eye Irrit. 2

Formula: NH<sub>4</sub>Cl

TSCA Inventory: listed

REACH Reg. No.: 01-2119487950-27-xxxx

EC No.: 231-211-8

Indice No.:

017-014-00-8

RTECS: BP4550000

MFCD:

00011420

KE No.: KE-01645

Concentration: 1 - &lt;4 %

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

Chemical: *phosphates (buffer salts)*

CAS No.: -

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

Formula: K/Na<sub>1-3</sub>H<sub>2-0</sub>PO<sub>4</sub>

TSCA Inventory: all listed

KE No.: listed

Concentration: 75 - &lt;100 %

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

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## 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.

### 7.2 Conditions for safe storage, including any incompatibilities

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

Storage class (VCI): 6.1B

Water hazard class (DE): 3

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- 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

<b>190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized</b>		
Chemical:	<i>N-allylthiourea</i>	CAS No.: 109-57-9
Chemical:	<i>magnesium sulfate</i>	CAS No.: 7487-88-9
DNEL:	[inh] 37.6 mg/m <sup>3</sup>	
	<small>DNEL = Derived No-Effect Level (for workers)</small>	
PNEC <sub>(fresh water)</sub> :	0.68 mg/L	
	<small>PNEC = Predicted No Effect Concentration</small>	
<b>520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized</b>		
Chemical:	<i>ammonium chloride</i>	CAS No.: 12125-02-9
DNEL:	128.9 <sub>derm</sub> mg/kg	
	<small>DNEL = Derived No-Effect Level (for workers)</small>	
PNEC <sub>(fresh water)</sub> :	0.25 mg/L	
	<small>PNEC = Predicted No Effect Concentration</small>	
SUVA(CH) MAK value:	3 a mg/m <sup>3</sup>	
NIOSH STEL:	20 mg/m <sup>3</sup>	
Chemical:	<i>phosphates (buffer salts)</i>	CAS No.: -

### 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

<b>190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized</b>		
Appearance: solid (lyoph.)	Colour: colourless	Odor: odorless
<b>520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized</b>		
Appearance: solid (lyoph.)	Colour: colourless	Odor: odorless

### 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.

#### 190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized

Chemical: *N-allylthiourea*  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-29756  
 LD50<sub>orl rat</sub>: 200 mg/kg

CAS No.: 109-57-9

Chemical: *magnesium sulfate*  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-22752  
 LD50<sub>orl rat</sub>: >2000 g/cm<sup>3</sup>  
 LD50<sub>drm rat</sub>: >2000 mg/kg

CAS No.: 7487-88-9

#### 520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized

Chemical: *ammonium chloride*  
 TSCA Inventory: listed  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: listed ≥1,0%/≥1,0%,  
 Korea Exist.Chem.Inventory: KE-01645  
 LD50<sub>orl rat</sub>: 1440 mg/kg  
 LC<sub>LoWorl rbt</sub>: 1000 mg/kg  
 LC50<sub>ihl rat</sub>: 1000 ppm/4h  
 LD50<sub>orl mus</sub>: 1300 mg/kg

CAS No.: 12125-02-9

Chemical: *phosphates (buffer salts)*  
 TSCA Inventory: all listed  
 Korea Exist.Chem.Inventory: listed  
 LD50<sub>orl rat</sub>: > 2000 mg/kg

CAS No.: -

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 190 mg BOD<sub>5</sub> Nutrient mixture plus R1, lyophilized

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Chemical: *N-allylthiourea* CAS No.: 109-57-9  
 Water hazard class (DE): 3 WGK No.: 0016  
 Storage class (VCI): 6.1 B

Chemical: *magnesium sulfate* CAS No.: 7487-88-9  
 PNEC(fresh water) : 0.68 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50pimephales promelas/96h : 680MgX mg/L  
 LC50fish/96h : [4d] 0.68; [48h] 0.72 mg/L  
 EC50daphnia/48h : 720MgX mg/L  
 EC50chlorella vulgaris/5d : [18d] 2700 mg/L  
 Water hazard class (DE): 1  
 Storage class (VCI): 12-13

**520 mg BOD<sub>5</sub> Nutrient mixture plus R2, lyophilized**

Chemical: *ammonium chloride* CAS No.: 12125-02-9  
 PNEC(fresh water) : 0.25 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50fish/96h : 42.9 mg/L  
 EC50daphnia/48h : 136.6 mg/L  
 EC50chlorella vulgaris/5d : EC50/5d: 1300 mg/L  
 Water hazard class (DE): 1 WGK No.: 0213  
 Dispersion coefficient(octanol-water) : -4.37  
 Storage class (VCI): 12-13

Chemical: *phosphates (buffer salts)* CAS No.: -  
 Water hazard class (DE): 1  
 Storage class (VCI): 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**

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

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## 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

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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

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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