

Safety Data Sheet

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

REF: 918994

NANOCOLOR BOD₅ Nutrient mixture without NATH

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Printing date: 01.10.2019

Date of issue: 29.04.2019

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

1.1 Product identifier

REF 918994
Product name NANOCOLOR BOD₅ Nutrient mixture without 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 0.18 g BOD₅ Nutrient mixture R1, lyophilized
10 x 520 mg BOD₅ Nutrient mixture 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 (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

0.18 g BOD₅ Nutrient mixture R1, lyophilized

Signal word Do not need labelling as hazardous
-

No hazard class

520 mg BOD₅ Nutrient mixture R2, lyophilized

Signal word Do not need labelling as hazardous
-

No hazard class

2.2 Label elements

0.18 g BOD₅ Nutrient mixture R1, lyophilized

Do not need labelling as hazardous
Signal word: -

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520 mg BOD₅ Nutrient mixture 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

Information pertaining to particular risks to the environment

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

0.18 g BOD₅ Nutrient mixture R1, lyophilized

Chemical: *magnesium sulfate*
 Classification: No criteria for classification or naming of chemical not required.
 Formula: MgSO₄
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119486789-11-xxxx
 EC No.: 231-298-2
 RTECS: OM4500000
 KE No.: KE-22752
 Concentration: 97 - <100 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 7487-88-9

520 mg BOD₅ Nutrient mixture R2, lyophilized

Chemical: *ammonium chloride*
 Classification: H302, Acute Tox. 4 oral, H319, Eye Irrit. 2
 Formula: NH₄Cl
 TSCA Inventory: listed
 REACH Reg. No.: 01-2119487950-27-xxxx
 EC No.: 231-211-8
 RTECS: BP4550000
 KE No.: KE-01645
 Concentration: 1 - <4 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: 12125-02-9

Indice No.: 017-014-00-8
 MFCD: 00011420

Chemical: *phosphates (buffer salts)*
 Classification: No criteria for classification or naming of chemical not required.
 Formula: K/Na₁₋₃ H₂₋₀ PO₄
 TSCA Inventory: all listed
 KE No.: listed
 Concentration: 75 - <100 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

CAS No.: -

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

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

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

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): 12

Water hazard class (DE): 1

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.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

0.18 g BOD₅ Nutrient mixture R1, lyophilized

Chemical: *magnesium sulfate*

CAS No.: 7487-88-9

DNEL: [inh] 37.6 mg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 0.68 mg/L
PNEC = Predicted No Effect Concentration

520 mg BOD₅ Nutrient mixture R2, lyophilized

Chemical: *ammonium chloride*

CAS No.: 12125-02-9

DNEL: 128.9_{derm} mg/kg
DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 0.25 mg/L
PNEC = Predicted No Effect Concentration

SUVA(CH) MAK value: 3 a mg/m³
NIOSH STEL: 20 mg/m³

Chemical: *phosphates (buffer salts)*

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

0.18 g BOD₅ Nutrient mixture R1, lyophilized

Appearance: solid (lyoph.)

Colour: colourless

Odor: odorless

520 mg BOD₅ Nutrient mixture R2, lyophilized

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

SECTION 10: Stability and reactivity

10.1 Reactivity

None

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

None.

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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.

0.18 g BOD₅ Nutrient mixture R1, lyophilized

Chemical:	<i>magnesium sulfate</i>	CAS No.: 7487-88-9
TSCA Inventory:	listed	
Korea Exist.Chem.Inventory:	KE-22752	
LD50 _{orl rat} :	>2000 g/cm ³	
LD50 _{drm rat} :	>2000 mg/kg	

520 mg BOD₅ Nutrient mixture R2, lyophilized

Chemical:	<i>ammonium chloride</i>	CAS No.: 12125-02-9
TSCA Inventory:	listed	
Japan CSCL/PRTR:	not listed, Japan PDSCCL: not listed	
Japan ISHL:	listed ≥1,0%/≥1,0%,	
Korea Exist.Chem.Inventory:	KE-01645	
LD50 _{orl rat} :	1440 mg/kg	
LC _{Loworl rbt} :	1000 mg/kg	
LC50 _{ihl rat} :	1000 ppm/4h	
LD50 _{orl mus} :	1300 mg/kg	

Chemical:	<i>phosphates (buffer salts)</i>	CAS No.: -
TSCA Inventory:	all listed	
Korea Exist.Chem.Inventory:	listed	
LD50 _{orl rat} :	> 2000 mg/kg	

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

0.18 g BOD₅ Nutrient mixture R1, lyophilized

Chemical:	<i>magnesium sulfate</i>	CAS No.: 7487-88-9
PNEC _(fresh water) :	0.68 mg/L	
PNEC = Predicted No Effect Concentration		
LC50 _{pimephales promelas/96h} :	680MgX mg/L	
LC50 _{fish/96h} :	[4d] 0.68; [48h] 0.72 mg/L	
EC50 _{daphnia/48h} :	720MgX mg/L	
EC50 _{chlorella vulgaris/5d} :	[18d] 2700 mg/L	
Water hazard class (DE):	1	
Storage class (VCI):	12-13	

520 mg BOD₅ Nutrient mixture R2, lyophilized

Chemical:	<i>ammonium chloride</i>	CAS No.: 12125-02-9
PNEC _(fresh water) :	0.25 mg/L	
PNEC = Predicted No Effect Concentration		
LC50 _{fish/96h} :	42.9 mg/L	
EC50 _{daphnia/48h} :	136.6 mg/L	
EC50 _{chlorella vulgaris/5d} :	EC50/5d: 1300 mg/L	
Water hazard class (DE):	1	WGK No.: 0213
Dispersion coefficient _(octanol-water) :	-4.37	

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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

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

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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, 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