

# 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 985859  
 Product name NANOCOLOR Methanol 15

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.

23 x 9 mg Methanol R0, lyophilized (R0)  
 1 x 90 mL Methanol R1  
 1 x 6 mL Methanol R2  
 1 x 10 mL Methanol R3

### 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

Hazard identification	Hazard classes/categories
H290	Met. Corr. 1

### 2.1 Classification of the substance or mixture

**9 mg Methanol R0, lyophilized (R0)**

Signal word Do not need labelling as hazardous  
 -

No hazard class

**90 mL Methanol R1**

Signal word Do not need labelling as hazardous  
 -

No hazard class

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## 6 mL Methanol R2

Signal word Do not need labelling as hazardous  
-

No hazard class

## 10 mL Methanol R3

Signal word Do not need labelling as hazardous  
-

Hazard identification	Hazard classes/categories
H290	Met. Corr. 1

## 2.2 Label elements

Metal corrosive solutions **do not have to** be labelled with GHS symbol, signal word, H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2.1.3).

### 9 mg Methanol R0, lyophilized (R0)

Do not need labelling as hazardous  
Signal word: -

### 90 mL Methanol R1

Do not need labelling as hazardous  
Signal word: -

### 6 mL Methanol R2

Do not need labelling as hazardous  
Signal word: -

### 10 mL Methanol R3

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. The sentence H290 "May be corrosive to metals." has only relevance for longer transportation time of larger amounts. The labelling GHS05 would be creating an "OVERLABELLING" (see GHS Directive 1272/2008/EC Annex I, chapter 1.5.2.1.3.). ---

### 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

#### 9 mg Methanol R0, lyophilized (R0)

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Chemical: *peroxidase* 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.

Chemical: *alginic acid, sodium salt* CAS No.: 9005-38-3  
 Classification: No criteria for classification or naming of chemical not required.  
 TSCA Inventory: listed MFCD: 00081310  
 Concentration: 10 - <100 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

## 90 mL Methanol R1

Chemical: *tris(hydroxymethyl)aminomethane* CAS No.: 77-86-1  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $C_4H_{11}NO_3$   
 Pseudonym: Trometamol, 2-amino-2-(hydroxymethyl)-1,3-propanediol  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119957659-16-0014  
 EC No.: 201-064-4  
 RTECS: TY2900000 MFCD: 00004679  
 KE No.: KE-01403  
 Concentration: 1 - <3 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

## 6 mL Methanol R2

Chemical: *tetramethylbenzidine* CAS No.: 54827-17-7  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $C_{16}H_{20}N_2$   
 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.

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $C_2H_6OS$   
 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: 60 - <80 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

## 10 mL Methanol R3

Chemical: *hydrochloric acid* CAS No.: 7647-01-0  
 Classification: H290, Met. Corr. 1, H314, Skin Corr. 1B, H331, Acute Tox. 3 inh.  
 Formula:  $HCl \cdot H_2O$   
 Pseudonym: aqueous hydrogen chloride  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119484862-27-xxxx  
 EC No.: 231-595-7 Indice No.: 017-002-01-X  
 RTECS: MW4025000  
 KE No.: KE-20189, >10% Toxic 97-1-203, Acc. Precaution Chem.  
 Concentration: 1 - <10 %  
 acc. CLP (GHS): H290, Met. Corr. 1

### 3.3 Remarks

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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): 8B

Water hazard class (DE): 3

#### 7.2.1 Requirements for stock rooms and containers

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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

#### 9 mg Methanol R0, lyophilized (R0)

Chemical: *peroxidase*

CAS No.: 9003-99-0

Chemical: *alginic acid, sodium salt*

CAS No.: 9005-38-3

#### 90 mL Methanol R1

Chemical: *tris(hydroxymethyl)aminomethane*

CAS No.: 77-86-1

DNEL: [derm] 166.7 mg/kg bw/day; [inh] 117.5 mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: no data mg/L

PNEC = Predicted No Effect Concentration

NIOSH: not listed

[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

#### 6 mL Methanol 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>

#### 10 mL Methanol R3

Chemical: *hydrochloric acid*

CAS No.: 7647-01-0

DNEL: [inh] 8 mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 36 µg/L

PNEC = Predicted No Effect Concentration

EU value: [TWA] 5 ppm / 8 mg/m<sup>3</sup>; [STEL] 10 ppm / 15 mg/m<sup>3</sup>

TRGS 900 (DE): 2 mL/m<sup>3</sup> / 3 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 2 (I), Y

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

SUVA(CH) MAK value: 2 ppm / 3\* mg/m<sup>3</sup>

NIOSH: [C] 5 ppm / 7 mg/m<sup>3</sup>

[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: List of highly hazardous chemicals, toxics and reactives Yes (TQ = 5000 lbs) n/a; TWA 5 ppm / 7 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

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- 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

**9 mg Methanol R0, lyophilized (R0)**

Appearance: solid	Colour: colourless	Odor: fusty, mouldy
pH:	7-7,5	
Solubility in water:	0-100 %	

**90 mL Methanol R1**

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	7,2	
Specific gravity:	1,0 g/cm <sup>3</sup>	
Solubility in water:	0-100 %	

**6 mL Methanol R2**

Appearance: liquid	Colour: colourless	Odor: fusty, mouldy
pH:	6-8	
Specific gravity:	1,06 g/cm <sup>3</sup>	

**10 mL Methanol R3**

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	0-1	
Specific gravity:	1,02 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.

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## 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.

#### 9 mg Methanol R0, lyophilized (R0)

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

Chemical: *alginate acid, sodium salt* CAS No.: 9005-38-3  
 TSCA Inventory: listed

#### 90 mL Methanol R1

Chemical: *tris(hydroxymethyl)aminomethane* CAS No.: 77-86-1  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-01403  
 LD50<sub>orl rat</sub>: 5000 mg/kg

#### 6 mL Methanol R2

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

#### 10 mL Methanol R3

Chemical: *hydrochloric acid* CAS No.: 7647-01-0  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Exposure Routes: inhalation, ingestion (solution), skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system  
 Symptoms: irritation nose, throat, larynx; cough, choking; dermatitis; solution: eye, skin burns; liquid: frostbite; in animals: laryngeal spasm; pulmonary edema  
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious Substance  
 Japan ISHL: listed ≥0.2%/≥0.1%, Article 57-2 (SDS required)  
 South Korea TCCA: Accident Precaution Chemical Yes  
 Korea Exist.Chem.Inventory: KE-20189, >10% Toxic 97-1-203, Acc. Precaution Chem.  
 LD50<sub>orl rat</sub>: 900 mg/kg  
 LC50<sub>drm rbt</sub>: >5010 mg/kg

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 9 mg Methanol R0, lyophilized (R0)

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

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Chemical: *alginic acid, sodium salt* CAS No.: 9005-38-3

**90 mL Methanol R1**

Chemical: *tris(hydroxymethyl)aminomethane* CAS No.: 77-86-1  
 PNEC(fresh water) : no data mg/L  
 PNEC = Predicted No Effected Concentration  
 LC50<sub>fish/96h</sub> : LD0 (4d): 1-10 g/L  
 EC50<sub>pseudokirchneriella subcapitata/72h</sub> : 397;48h: 473 mg/L  
 EC10<sub>pseudomonas putita/16h</sub> : 13h g/L  
 Water hazard class (DE): 2  
 Dispersion coefficient<sub>(octanol-water)</sub> : -1.56  
 Storage class (VCI): 12-13

**6 mL Methanol 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(fresh water) : 17 mg/L  
 PNEC = Predicted No Effected Concentration  
 LC50<sub>fish/96h</sub> : 38.5 g/L  
 EC50<sub>daphnia/48h</sub> : 24.6 g/L  
 EC10<sub>pseudomonas putita/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

**10 mL Methanol R3**

Chemical: *hydrochloric acid* CAS No.: 7647-01-0  
 PNEC(fresh water) : 36 µg/L  
 PNEC = Predicted No Effected Concentration  
 LC50<sub>fish/96h</sub> : 24.6 mg/L  
 EC50<sub>daphnia/48h</sub> : 0.492 mg/L  
 EC50<sub>pseudokirchneriella subcapitata/72h</sub> : 0.78 mg/L  
 Water hazard class (DE): 1 WGK No.: 0238  
 Storage class (VCI): 8 B

**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

H290 May be corrosive to metals.

#### 16.1.2 List of relevant P phrases

P390 Absorb spillage to prevent material damage.

### 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