

# Safety Data Sheet

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

REF: 91875	NANOCOLOR Phenol	Page: 1/9
Printing date: 01.10.2019	Date of issue: 25.07.2018	

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

### 1.1 Product identifier

REF 91875  
 Product name NANOCOLOR Phenol

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.

2 x 100 mL Phenol R1  
 1 x 22 g Phenol R2  
 2 x 100 mL Phenol 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 (msds@mn-net.com)

### 1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.  
 DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

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



GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H319	Eye Irrit. 2

### 2.1 Classification of the substance or mixture

**100 mL Phenol R1**

Signal word Do not need labelling as hazardous  
 -

No hazard class

**22 g Phenol R2**

# Safety Data Sheet

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

REF: 91875

NANOCOLOR Phenol

Page: 2/9

Printing date: 01.10.2019

Date of issue: 25.07.2018



GHS07

Signal word

WARNING

**Hazard identification**

**Hazard classes/categories**

H302

Acute Tox. 4 oral

**100 mL Phenol R3**



GHS07

Signal word

WARNING

**Hazard identification**

**Hazard classes/categories**

H319

Eye Irrit. 2

## 2.2 Label elements

According **CLP directive** inner packages must be only labelled with GHS symbol(s) and product identifier(s) (EU 1272/2008 Annex I - 1.5.1.2).

Harmful chemicals/mixtures with signal word: **WARNING** must not be labelled with H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2).

### 100 mL Phenol R1

Do not need labelling as hazardous

Signal word: -

### 22 g Phenol R2



GHS07

Signal word: WARNING

### 100 mL Phenol R3



GHS07

Signal word: WARNING

## 2.3 Other hazards

**Possible hazards from physicochemical properties**

In the case of pH values are less than 5 or higher than 9 then it is irritant. ---

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

Cause after oral intake, impairments of health when ingested in small quantities. ---

**Information pertaining to particular risks to the environment**

---

# Safety Data Sheet

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

REF: 91875

NANOCOLOR Phenol

Page: 3/9

Printing date: 01.10.2019

Date of issue: 25.07.2018

## Other hazards

---

## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 100 mL Phenol R1

Chemical:	<i>4-nitroaniline</i>	CAS No.:	100-01-6
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	$C_6H_6N_2O_2$		
Pseudonym:	4-nitrobenzenamine, p-nitrophenylamine, PNA		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119942160-50-xxxx		
EC No.:	202-810-1	Indice No.:	612-012-00-9
RTECS:	BY7000000	MFCD:	00007858
Concentration:	< 1,00 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

#### 22 g Phenol R2

Chemical:	<i>sodium nitrite</i>	CAS No.:	7632-00-0
Classification:	H272, Ox. Liq. 2, H301, Acute Tox. 3 oral, H319, Eye Irrit. 2, H400, Aquatic Acute 1		
Formula:	$NaNO_2$		
Pseudonym:	nitrous acid, sodium salt		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119471836-27-xxxx		
EC No.:	231-555-9	Indice No.:	007-010-00-4
RTECS:	RA1225000		
KE No.:	KE-31546, >25% Toxic 97-1-167		
Concentration:	1 - <5 %		
acc. CLP (GHS):	H302, Acute Tox. 4 oral		

Chemical:	<i>sodium chloride</i>	CAS No.:	7647-14-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	$NaCl$		
Pseudonym:	salt		
TSCA Inventory:	listed		
REACH Reg. No.:	exempt, Annex V		
EC No.:	231-598-3		
RTECS:	VZ4725000		
KE No.:	KE-31387		
Concentration:	80 - <100 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

#### 100 mL Phenol R3

Chemical:	<i>sodium carbonate</i>	CAS No.:	497-19-8
Classification:	H319, Eye Irrit. 2		
Formula:	$Na_2CO_3$		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119485498-19-xxxx		
EC No.:	207-838-8	Indice No.:	011-005-00-2
RTECS:	VZ4050000		
KE No.:	KE-31380		
Concentration:	10 - <20 %		
acc. CLP (GHS):	H319, Eye Irrit. 2		

### 3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%.

List of H and P phrases: see section 16.1

# Safety Data Sheet

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

REF: 91875

NANOCOLOR Phenol

Page: 4/9

Printing date: 01.10.2019

Date of issue: 25.07.2018

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).

#### 4.1.3 After INHALATION of vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. ---

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested. ---

### 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

Formation of hazardous and caustic vapour-air mixtures possible. ---

### 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. Regular staff training is necessary.

### 6.2 Environmental precautions

not necessary

### 6.3 Methods and material for containment and cleaning up

Bind any escaping liquid with inert absorbent.  
Collect small amounts of leaked liquid and flush with 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): 6.1C

Water hazard class (DE): 3

#### 7.2.1 Requirements for stock rooms and containers

# Safety Data Sheet

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

REF: 91875

NANOCOLOR Phenol

Page: 5/9

Printing date: 01.10.2019

Date of issue: 25.07.2018

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

#### 100 mL Phenol R1

Chemical: *4-nitroaniline*

CAS No.: 100-01-6

DNEL: 0.176<sub>derm.</sub> mg/kg bw/day; 0.201<sub>inh.</sub> mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): (1) mL/m<sup>3</sup> / (6) mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: -, H, Y

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

SUVA(CH) MAK value: 0,5 ppm / 3 mg/m<sup>3</sup>

NIOSH: TWA [skin] 3 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: TWA [skin] 1 ppm / 6 mg/m<sup>3</sup>

#### 22 g Phenol R2

Chemical: *sodium nitrite*

CAS No.: 7632-00-0

DNEL: 2<sub>inh</sub> mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): -  
E/e respirable

Chemical: *sodium chloride*

CAS No.: 7647-14-5

#### 100 mL Phenol R3

Chemical: *sodium carbonate*

CAS No.: 497-19-8

DNEL: 10<sub>inh</sub> mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): -  
E/e respirable

### 8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

#### 8.2.1 Respiratory protection

No additional recommendations.

#### 8.2.2 Hand protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

#### 8.2.3 Eye protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

#### 8.2.4 Skin protection

Not necessary.

#### 8.2.5 Personal hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 100 mL Phenol R1

Appearance: liquid

Colour: slightly yellow

Odor: fusty, mouldy

pH: 1

Specific gravity: 1,01 g/cm<sup>3</sup>

Solubility in water: 0-100 %

# Safety Data Sheet

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

REF: 91875

NANOCOLOR Phenol

Page: 6/9

Printing date: 01.10.2019

Date of issue: 25.07.2018

## 22 g Phenol R2

Appearance: solid

Colour: colourless

Odor: odorless

pH:

6-7

Solubility in water:

0-30 %

## 100 mL Phenol R3

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

10-11

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

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no further data available.

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

No further data available.

### 10.4 Conditions to avoid

Observe labeled storage temperature. ---

### 10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

### 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.

#### 100 mL Phenol R1

Chemical: *4-nitroaniline*

CAS No.: 100-01-6

TSCA Inventory: listed

Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact

Target Organs: respiratory system, blood, heart, liver

Symptoms: irritation nose, throat; cyanosis, ataxia; tachycardia, tachypnea; dyspnea (breathing difficulty);

irritability; vomiting, diarrhea; convulsions; res

LD50<sub>orl rat</sub>: 750 mg/kgLD50<sub>drm rbt</sub>: > 2500 mg/kg

TRGS 905 (DE): K3A (4/5)

#### 22 g Phenol R2

Chemical: *sodium nitrite*

CAS No.: 7632-00-0

TSCA Inventory: listed

Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious substance

Japan ISHL: not listed

Korea Exist.Chem.Inventory: KE-31546, &gt;25% Toxic 97-1-167

LD50<sub>orl rat</sub>: 85 mg/kgLC<sub>LoWorl hmn</sub>: 71 mg/kgLC50<sub>inl rat</sub>: 5.5 mg/m<sup>3</sup>LD50<sub>orl mus</sub>: 214-216 mg/kg

Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

# Safety Data Sheet

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

REF: 91875	NANOCOLOR Phenol	Page: 7/9
Printing date: 01.10.2019	Date of issue: 25.07.2018	

Chemical:	<i>sodium chloride</i>	CAS No.: 7647-14-5
TSCA Inventory:	listed	
Korea Exist.Chem.Inventory:	KE-31387	
LD50 <sub>orl rat</sub> :	3000 mg/kg	
LD50 <sub>drm rbt</sub> :	10 g/kg	

## 100 mL Phenol R3

Chemical:	<i>sodium carbonate</i>	CAS No.: 497-19-8
TSCA Inventory:	listed	
Korea Exist.Chem.Inventory:	KE-31380	
LD50 <sub>orl rat</sub> :	4090 mg/kg	
LC <sub>LoWorl rat</sub> :	4000 mg/kg	
LC50 <sub>ihl rat</sub> :	2300 <sub>2h</sub> mg/m <sup>3</sup>	

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 100 mL Phenol R1

Chemical:	<i>4-nitroaniline</i>	CAS No.: 100-01-6
Water hazard class (DE):	2	WGK No.: 0162
Storage class (VCI):	6.1 C	

#### 22 g Phenol R2

Chemical:	<i>sodium nitrite</i>	CAS No.: 7632-00-0
LC50 <sub>fish/96h</sub> :	0.56-1.78 mg/L	
EC50 <sub>daphnia/48h</sub> :	12.5-100 mg/L	
IC50 <sub>scenedesmus quadricauda/72h</sub> :	EC50/72 h: >100 mg/L	
Water hazard class (DE):	3	WGK No.: 161
Dispersion coefficient <sub>(octanol-water)</sub> :	-3.7	
Storage class (VCI):	6.1 B	

Chemical:	<i>sodium chloride</i>	CAS No.: 7647-14-5
Water hazard class (DE):	1	
Storage class (VCI):	12-13	

#### 100 mL Phenol R3

Chemical:	<i>sodium carbonate</i>	CAS No.: 497-19-8
LC50 <sub>fish/96h</sub> :	300 mg/L	
EC50 <sub>daphnia/48h</sub> :	265 mg/L	
Water hazard class (DE):	1	WGK No.: 0222
Storage class (VCI):	12-13	

### 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

# Safety Data Sheet

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

REF: 91875

NANOCOLOR Phenol

Page: 8/9

Printing date: 01.10.2019

Date of issue: 25.07.2018

## SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

### 13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains.

## SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according the transport regulations

### 14.5 Environmental hazards

none, contains only small quantities of hazardous substances

### 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  
 TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011  
 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

not necessary for these small amounts ---

## SECTION 16: Other information

### 16.1 List of H and P phrases

#### 16.1.1 List of relevant H phrases

H302 Harmful if swallowed.  
 H319 Causes serious eye irritation.

#### 16.1.2 List of relevant P phrases

P264W Wash with water thoroughly after handling.  
 P280sh Wear protective gloves/eye protection.  
 P301+312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
 P330 Rinse mouth.

### 16.2 Training advice

Regular safety training.

### 16.3 Recommended restriction on use

Only for professional user.  
 An individual package of this product or test kit has a moderate hazardous potential.

### 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.  
 MACHEREY-NAGEL GmbH & Co. KG makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly MACHEREY-NAGEL GmbH & Co. KG will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

### 16.5 Sources of key data



# Safety Data Sheet

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

REF: 91875

NANOCOLOR Phenol

Page: 9/9

Printing date: 01.10.2019

Date of issue: 25.07.2018

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*