

# Safety Data Sheet

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

REF: 985009	NANOCOLOR Lead 5	Page: 1/11
Printing date: 02.06.2020	Date of issue: 16.03.2020	

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

### 1.1 Product identifier

REF 985009  
 Product name NANOCOLOR Lead 5

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.

20 x 0.5 mL Lead 5 (R0)  
 1 x 5 mL Lead 5 R2  
 1 x 20x 11 mg NANOFIX Lead 5 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



Signal word DANGER

Hazard identification	Hazard classes/categories
EUH032	not defined
H290	Met. Corr. 1
H301	Acute Tox. 3 oral
H311	Acute Tox. 3 derm.
H317	Skin Sens. 1
H331	Acute Tox. 3 inh.
H351	Carc. 2
H411	Aquatic Chronic 2

### 2.1 Classification of the substance or mixture

0.5 mL Lead 5 (R0)

# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 2/11

Printing date: 02.06.2020

Date of issue: 16.03.2020



GHS06

GHS09

Signal word

DANGER

**Hazard identification**

**Hazard classes/categories**

EUH032  
H301  
H311  
H331  
H411

not defined  
Acute Tox. 3 oral  
Acute Tox. 3 derm.  
Acute Tox. 3 inh.  
Aquatic Chronic 2

**5 mL Lead 5 R2**



GHS07

GHS08

Signal word

WARNING

**Hazard identification**

**Hazard classes/categories**

H290  
H317  
H351

Met. Corr. 1  
Skin Sens. 1  
Carc. 2

**20x 11 mg NANOFIX Lead 5 R3**



GHS09

Signal word

WARNING

**Hazard identification**

**Hazard classes/categories**

H411

Aquatic Chronic 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). Inner packages up to 10 mL need max. 2 symbols (Annex I - 1.5.2.4.1 / 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). This labelling exemption is NOT valid for sensibilizing substances.

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).

### 0.5 mL Lead 5 (R0)



GHS06

GHS09

Signal word: DANGER

H301, H311, H331

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

# Safety Data Sheet

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

REF: 985009	NANOCOLOR Lead 5	Page: 3/11
Printing date: 02.06.2020	Date of issue: 16.03.2020	

P261sh, P280sh, P301+310, P302+352, P405  
 Avoid breathing dust/vapours. Wear protective gloves/eye protection. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. IF ON SKIN: Wash with plenty of water. Store locked up.

## 5 mL Lead 5 R2



GHS07 GHS08

Signal word: WARNING

H317, H351  
 May cause an allergic skin reaction. Suspected of causing cancer.

P261sh, P280sh  
 Avoid breathing dust/vapours. Wear protective gloves/eye protection.

## 20x 11 mg NANOFIX Lead 5 R3



GHS09

Signal word: WARNING

### 2.3 Other hazards

#### Possible hazards from physicochemical properties

The property H314 "Causes severe skin burns and eye damage." of some salts is not applicable, because the mixture is buffered to pH >3-4 (see GHS Directive 1272/2008/EC Annex I, chapter 3.2.3.1.2.). ---

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

Cause severe after oral intake, inhalation of vapours, skin contact, impairments of health or can lead to death even when only ingested in small quantities. Cause after skin contact, impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts. Suspected of causing cancer. -

#### Information pertaining to particular risks to the environment

Avoid contact of substance/mixture to environment.

PBT: not applicable

vPvB: not applicable

#### Other hazards

---

## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 0.5 mL Lead 5 (R0)

Chemical:	<i>potassium cyanide</i>	CAS No.:	151-50-8
Classification:	H300, Acute Tox. 2 oral, H310, Acute Tox. 2 derm., H330, Acute Tox. 2 inh., H410, Aquatic Chronic 1, EUH032, not defined		
Formula:	KCN		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119486407-29-xxxx		
EC No.:	205-792-3	Indice No.:	006-007-00-5
RTECS:	TS8750000	MFCD:	00011397
KE No.:	KE-29092, >1% Toxic 97-1-90		
Concentration:	1 - <7 %	Correlation factor:	x 0.40 (= %CN <sup>-</sup> )
The classification refers to weight percent of the metal (according to CLP Regulation 2008/1272/EC Annex VI, 1.1.3.2 Note 1)			
acc. CLP (GHS):	H301, Acute Tox. 3 oral, H311, Acute Tox. 3 derm., H331, Acute Tox. 3 inh., H411, Aquatic Chronic 2, EUH032, not defined		

# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 4/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

Chemical: *4-(2-pyridyl-(2)-azo)-resorcin, sodium salt monohydrat* CAS No.: 16593-81-0  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $C_{11}H_8N_3NaO_2 \cdot H_2O$   
 TSCA Inventory: LVE  
 EC No.: 236-339-8  
 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: 40 - <60 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

### 5 mL Lead 5 R2

Chemical: *hydroxylammonium chloride* CAS No.: 5470-11-1  
 Classification: H290, Met. Corr. 1, H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H315, Skin Irrit. 2, H317, Skin Sens. 1, H319, Eye Irrit. 2, H351, Carc. 2, H373, STOT RE 2, H400, Aquatic Acute 1  
 Formula:  $NH_2OH \cdot HCl / H_4ClNO$   
 Pseudonym: hydroxylamin hydrochloride  
 TSCA Inventory: listed  
 REACH Reg. No.: as intermediate  
 EC No.: 226-798-2 Indice No.: 612-123-00-2  
 RTECS: NC3675000 MFCD: 00051089  
 KE No.: KE-20602, >1% Toxic 97-1-411  
 Concentration: 5 - <10 %  
 acc. CLP (GHS): H290, Met. Corr. 1, H317, Skin Sens. 1, H351, Carc. 2

Chemical: *acetate buffer solution* CAS No.: -  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $CH_3COOH/K/Na \cdot H_2O$   
 TSCA Inventory: all listed  
 KE No.: listed  
 Concentration: 5 - <15 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

### 20x 11 mg NANOFIX Lead 5 R3

Chemical: *sodium diethyldithiocarbamate* CAS No.: 148-18-5  
 Classification: H302, Acute Tox. 4 oral, H400, Aquatic Acute 1  
 Formula:  $C_5H_{10}N_2S_2$   
 Pseudonym: N,N-diethyl-carbamodithioic acid, sodium salt  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119513340-57-xxxx  
 EC No.: 205-710-6  
 RTECS: EZ6550000  
 Concentration: 2.5 - <25 %  
 acc. CLP (GHS): H411, Aquatic Chronic 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

## 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. Remove contaminated clothing. Show product package, packing insert and this material safety data sheet to the doctor. Take to a doctor, in a raised position if there are breathing difficulties.

# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 5/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

- 4.1.1 After SKIN Contact**  
Remove contaminated clothing immediately. Rinse the affected skin or mucous membrane thoroughly for min. 15 minutes under running water. (If possible) use soap. Avoid neutralisation. Then apply a loose bandage.
- 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. If vomiting and if insensible place patient in recovery position and keep airways free. Administer a Dexamethasone spray as soon as possible. Ensure quiet, warmth, and provide resuscitation if necessary. In the event of respiratory distress ensure that the patient inhales oxygen. Secure the breathing, heart and circulatory function. ---
- 4.1.4 After ORAL Intake**  
After oral intake lots of water with activated charcoal supplement should be drunk after it has been ingested. ---
- 4.2 Most important symptoms and effects, both acute and delayed**  
May cause sensitization by skin contact, also in repeated contact of small amounts. CMR Effects: Suspected of causing cancer. ---
- 4.3 Indication of any immediate medical attention and special treatment needed**  
After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. In the event of RESPIRATORY DISTRESS ensure that the patient inhales oxygen. TOXIFICATION: Treat symptomatically. Secure the breathing, heart and circulatory function. Remove the substance quickly from the body. Mechanically induce vomiting or ensure the patient eats medicinal charcoal compressed tablets or drinks aluminium oxide drug suspensions. In order to ensure rapid passage through the colon (administer 2 tablespoons of dissolved Glauber's salt). Alleviation of pain, if necessary sedation. Shock treatment. Administer a prophylaxis to counter pulmonary oedema. Inform patient respectively further measures and the possibility of long-term damages. ---

## 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. Spray any vapours released with water. Retent fire water. Use only acid-resistant safety equipment.  
For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.
- 5.4 Additional information**  
Danger for environment **only in the event of a large-scale leakage** or formation of hazardous substances. ---

## SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Do not breathe vapours. Wear suitable protective gloves (see 8.2.2). Wear eye protection. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.
- 6.2 Environmental precautions**  
not necessary, contains only small amounts of these substances
- 6.3 Methods and material for containment and cleaning up**  
Bind any escaping liquid with inert absorbent. And dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water. Collect small amounts of leaked liquid and flush with water into drains.
- 6.4 Reference to other sections**  
see information in section 5.4 ---

# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 6/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product. Use only in well-ventilated working areas. 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. Products containing also toxic substances should be kept locked up.

Storage class (VCI): 4.1A  
Water hazard class (DE): 3

### 7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage, and store in a well-ventilated place at max. 25 °C, away or preferably separate from substances with which a hazardous reaction could take place, so that they are not immediately accessible to outside parties. Use inbreakable container for transport of glass bottles.

### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### 0.5 mL Lead 5 (R0)

Chemical: *potassium cyanide* CAS No.: 151-50-8

EU value: CN: [TWA] 1 / [STEL] 5 mg/m<sup>3</sup>  
[CN 8h] 1 / [15min] 5 mg/m<sup>3</sup>  
TRGS 900 (DE): E/e respirable

Short-term exposure factor: (4), H  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 5 CN e mg/m<sup>3</sup>  
NIOSH: not listed

NIOSH STEL: skin, HCN 4.7 ppm / 5 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: EPCRA/SARA Section 302 Extremely Hazardous Substances Yes (TPQ = 100 lbs) n/a; TWA<sub>skin</sub>, HCN 10 ppm / 11 mg/m<sup>3</sup>

Chemical: *4-(2-pyridyl)-(2-azo)-resorcin, sodium salt monohydrat* CAS No.: 16593-81-0

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>

#### 5 mL Lead 5 R2

Chemical: *hydroxylammonium chloride* CAS No.: 5470-11-1

TRGS 900 (DE): 1.5 mg/m<sup>3</sup>  
E/e respirable

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

Chemical: *acetate buffer solution* CAS No.: -

#### 20x 11 mg NANOFIX Lead 5 R3

Chemical: *sodium diethyldithiocarbaminat* CAS No.: 148-18-5

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

Short-term exposure factor: 4  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 2 e mg/m<sup>3</sup>

# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 7/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

## 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

Use for open access of these substances for example a protection filter, class A/AX. 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

Recommended to avoid contamination with these hazards.

### 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

#### 0.5 mL Lead 5 (R0)

Appearance: liquid	Colour: yellow	Odor: bitter almond
pH:	12-13	
Specific gravity:	1,05 g/cm <sup>3</sup>	
Solubility in water:	0-100 %	

#### 5 mL Lead 5 R2

Appearance: liquid	Colour: colourless	Odor: aminic
pH:	8-9	
Solubility in water:	0-100 %	

#### 20x 11 mg NANOFIX Lead 5 R3

Appearance: powder (solid)	Colour: slightly yellow	Odor: odorless
pH:	6-8	

### 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

Possible: Contact with acids liberates toxic gas. No further data available.

### 10.4 Conditions to avoid

Not necessary. 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.

# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 8/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

## 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.

#### 0.5 mL Lead 5 (R0)

Chemical: *potassium cyanide* CAS No.: 151-50-8  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Target Organs: act on blood or hemato-poietic system: decrease hemoglobin function; deprive body tissues of oxygen  
 Symptoms: cyanosis; loss of consciousness  
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes  
 Japan CSCL/PRTR: Poisonous substance, PRTR: ≥1,0% CN class I, Japan PDSCL: Poisonous Substance  
 Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-1+2 (Labelling&SDS required)  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-29092, >1% Toxic 97-1-90  
 LD50<sub>orl rat</sub>: 5 mg/kg  
 LC<sub>Low</sub><sub>orl hmn</sub>: 2.86 mg/kg  
 LD50<sub>drm rbt</sub>: 14.3-33.3 mg/kg  
 LD50<sub>ipr rat</sub>: 4 mg/kg  
 LD50<sub>orl mus</sub>: 8.5 mg/kg  
 LD50<sub>scu rat</sub>: 7.8 mg/kg  
 Acute Effects: Cause severe after oral intake, inhalation of vapours, skin contact, impairments of health or can lead to death even when only ingested in small quantities.  
 TRGS 905 (DE): R<sub>F</sub> C

Chemical: *4-(2-pyridyl)-(2)-azo)-resorcin, sodium salt monohydrat* CAS No.: 16593-81-0  
 TSCA Inventory: LVE

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

#### 5 mL Lead 5 R2

Chemical: *hydroxylammonium chloride* CAS No.: 5470-11-1  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Exposure Routes: -  
 Symptoms: -  
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious Substance  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-20602, >1% Toxic 97-1-411  
 LD50<sub>orl rat</sub>: 141 mg/kg  
 Acute Effects: Cause after skin contact, impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts.  
 Carcinogenic Effects: Suspected of causing cancer.  
 TRGS 907 (DE): Sh

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

#### 20x 11 mg NANOFIX Lead 5 R3

Chemical: *sodium diethyldithiocarbaminat* CAS No.: 148-18-5  
 TSCA Inventory: listed  
 Japan CSCL/PRTR: PRTR: >1,0% class I  
 LD50<sub>orl rat</sub>: 1500 mg/kg  
 LD50<sub>drm rat</sub>: 1000 mg/kg  
 TRGS 907 (DE): Sh



# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 9/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 0.5 mL Lead 5 (R0)

Chemical: *potassium cyanide* CAS No.: 151-50-8  
 Toxic to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.  
 Environmental hazards must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).  
 LC50<sub>daphnia magna/48h</sub>: 248h ; 0.53<sub>24h</sub> mg/L  
 LC50<sub>fish/96h</sub>: 0.45 mg/L  
 EC50<sub>daphnia/48h</sub>: 0.041 mg/L  
 IC50<sub>scenedesmus quadricauda/72h</sub>: 0.03<sub>8d</sub> mg/L  
 EC10<sub>pseudomonas putita/16h</sub>: EC10/16h: 0.001 mg/L  
 Water hazard class (DE): 3 WGK No.: 338  
 Storage class (VCI): 6.1 B

Chemical: *4-(2-pyridyl-(2)-azo)-resorcin, sodium salt monohydrat* CAS No.: 16593-81-0  
 Water hazard class (DE): 3

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5  
 PNEC<sub>(fresh water)</sub>: 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

#### 5 mL Lead 5 R2

Chemical: *hydroxylammonium chloride* CAS No.: 5470-11-1  
 LC50<sub>leuciscus idus/96h</sub>: 1-10 mg/L  
 Water hazard class (DE): 3  
 Storage class (VCI): 4.1 A

Chemical: *acetate buffer solution* CAS No.: -  
 Storage class (VCI): 12

#### 20x 11 mg NANOFIX Lead 5 R3

Chemical: *sodium diethyldithiocarbaminat* CAS No.: 148-18-5  
 Toxic to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.  
 Environmental hazards must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).  
 Water hazard class (DE): 2  
 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: 985009

NANOCOLOR Lead 5

Page: 10/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

## SECTION 13: Disposal considerations

Do not collect in acidic waste. May form toxic gases.

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). Close container tightly.

### 13.1 Waste treatment methods

## SECTION 14: Transport information

**14.1. UN number:** 3316 **14.2. UN proper shipping name:** Chemical Kit

**14.3. Class:** 9 **14.4. Packing group:** II

*Road transport*

Classification code: M11 Tunnel restriction code: E

Limited Quantity: acc. ADR 3.3.1/251: see LQ in Alternative declaration for transportation

*Air transport*

PAX: 960 max. weight PAX: 10 KG

CAO: 960 max. weight CAO: 10 KG

*Maritime transport*

EmS: F-A, S-P Storage category: A

Or use **Alternative declaration for transportation:**

class 6.1 II, **Excepted Quantities** ( $\leq 1 \text{ mL}/\Sigma \leq 500 \text{ mL}$ ) = ADR/ IATA E4

**14.1 UN number:** 3413 **14.2 UN proper shipping name:** Potassium cyanide solution

**14.3 Class:** 6.1 **14.4 Packing group:** II

*Road transport*

Classification code: T4

Limited Quantity: 100 mL Tunnel restriction code: E

Excepted Quantity: E 4

*Air transport*

PAX: 654 max. weight PAX: 5 L

CAO: 662 max. weight CAO: 60 L

*Maritime transport*

EmS: F-A, S-A Storage category: B

Maritime pollutant (5.2.1.6): P (Limited Quantity (LQ) until 5 L/kg per inner package)

### 14.5 Environmental hazards

none, contains only small quantities of hazardous substances, contains only small amounts of these 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 ---

# Safety Data Sheet

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

REF: 985009

NANOCOLOR Lead 5

Page: 11/11

Printing date: 02.06.2020

Date of issue: 16.03.2020

## 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.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

#### 16.1.2 List of relevant P phrases

P201	Obtain special instructions before use.
P260D	Do not breathe vapours.
P261sh	Avoid breathing dust/vapours.
P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302+352	IF ON SKIN: Wash with plenty of water.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311	Call a POISON CENTER/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P390	Absorb spillage to prevent material damage.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

### 16.2 Training advice

Multiple safety training of staffs about danger and protection by using hazards in working area. Additionally training and introduction of staffs for using these products.

### 16.3 Recommended restriction on use

Only for professional user.

Look about employee restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!

Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EEC or for DE §§ 11-13 MuSchG 2017)!

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

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

TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

#### Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU