

Safety Data Sheet

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

REF: 985009	NANOCOLOR Lead 5	Page: 1/12
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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
H302	Acute Tox. 4 oral
H311	Acute Tox. 3 derm.
H312	Acute Tox. 4 derm.
H317	Skin Sens. 1
H331	Acute Tox. 3 inh.
H351	Carc. 2
H373	STOT RE 2
H411	Aquatic Chronic 2

2.1 Classification of the substance or mixture

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0.5 mL Lead 5 (R0)



Signal word: DANGER

Hazard identification	Hazard classes/categories
EUH032	not defined
H301	Acute Tox. 3 oral
H311	Acute Tox. 3 derm.
H331	Acute Tox. 3 inh.
H411	Aquatic Chronic 2

5 mL Lead 5 R2



Signal word: WARNING

Hazard identification	Hazard classes/categories
H290	Met. Corr. 1
H302	Acute Tox. 4 oral
H312	Acute Tox. 4 derm.
H317	Skin Sens. 1
H351	Carc. 2
H373	STOT RE 2

20x 11 mg NANOFIX Lead 5 R3



Signal word: WARNING

Hazard identification	Hazard classes/categories
H411	Aquatic Chronic 2

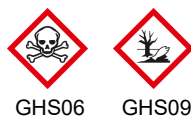
2.2 Label elements

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)



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Signal word: DANGER

H301, H311, H331

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

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 oral intake, inhalation of vapours/dust, 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

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Chemical: *potassium cyanide* 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 Index 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⁻)
 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

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: C₁₁ H₈ N₃ NaO₂ *H₂ O
 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: C₂ H₆ OS
 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: NH₂ OH•HCl/ H₄ ClNO
 Pseudonym: hydroxylamin hydrochloride
 TSCA Inventory: listed
 REACH Reg. No.: as intermediate
 EC No.: 226-798-2 Index 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, H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H317, Skin Sens. 1, H351, Carc. 2, H373, STOT RE 2

Chemical: *acetate buffer solution* CAS No.: -
 Classification: No criteria for classification or naming of chemical not required.
 Formula: CH₃ COOH/K/Na•H₂ O
 TSCA Inventory: all listed
 KE No.: listed
 Concentration: 5 - <15 %
 acc. CLP (GHS): The criteria for classification are not fulfilled.

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Chemical: *sodium diethyldithiocarbamate*
 Classification: H302, Acute Tox. 4 oral, H400, Aquatic Acute 1
 Formula: $C_5H_{10}NNaS_2$
 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

CAS No.: 148-18-5

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.

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. Carcinogenic 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.

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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 ---

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/m³
TRGS 900 (DE): [CN 8h] 1 / [15min] 5 mg/m³
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/m³

NIOSH: not listed

NIOSH STEL: skin, HCN 4.7 ppm / 5 mg/m³
[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_{skin}, HCN
10 ppm / 11 mg/m³

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_{inh} mg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 17 mg/L
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 50 ppm / 160 mg/m³
E/e respirable

Short-term exposure factor: 2 (I), H, Z

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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/m³

5 mL Lead 5 R2

Chemical: *hydroxylammonium chloride*

CAS No.: 5470-11-1

TRGS 900 (DE): 1.5 mg/m³
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 diethyldithiocarbamate*

CAS No.: 148-18-5

TRGS 900 (DE): 2 E mg/m³
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/m³

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/cm³

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

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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.

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:	<i>potassium cyanide</i>	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 _{orl rat} :	5 mg/kg		
LC _{LoWorl hmn} :	2.86 mg/kg		
LD50 _{drm rbt} :	14.3-33.3 mg/kg		
LD50 _{ipr rat} :	4 mg/kg		
LD50 _{orl mus} :	8.5 mg/kg		
LD50 _{scu rat} :	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 _F C		

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

Chemical:	<i>dimethyl sulfoxide</i>	CAS No.:	67-68-5
TSCA Inventory:	listed		
Korea Exist.Chem.Inventory:	KE-32367		
LD50 _{orl rat} :	14.5 g/kg		
LD50 _{drm rat} :	40 g/kg		

5 mL Lead 5 R2

Chemical:	<i>hydroxylammonium chloride</i>	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		

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LD50_{orl rat}: 141 mg/kg
 Acute Effects: Cause after oral intake, inhalation of vapours/dust, skin contact, impairments of health when ingested in small quantities.
 Chronic Effects: May cause sensitization by skin contact, also in repeated contact of small amounts. May cause damage to organs through prolonged or repeated exposure.
 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 diethyldithiocarbamate* CAS No.: 148-18-5
 TSCA Inventory: listed
 Japan CSCL/PRTR: PRTR: >1,0% class I
 LD50_{orl rat}: 1500 mg/kg
 LD50_{drm rat}: 1000 mg/kg
 TRGS 907 (DE): Sh

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_{daphnia magna/48h}: 248h ; 0.53_{24h} mg/L
 LC50_{fish/96h}: 0.45 mg/L
 EC50_{daphnia/48h}: 0.041 mg/L
 IC50_{scenedesmus quadricauda/72h}: 0.03_{8d} mg/L
 EC10_{pseudomonas putita/16h}: 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_(fresh water): 17 mg/L
 PNEC = Predicted No Effect Concentration
 LC50_{fish/96h}: 38.5 g/L
 EC50_{daphnia/48h}: 24.6 g/L
 EC10_{pseudomonas putita/16h}: EC/16h: 7100 mg/L
 Water hazard class (DE): 1 WGK No.: 5050
 Dispersion coefficient_(octanol-water): -1.35
 Storage class (VCI): 12

5 mL Lead 5 R2

Chemical: *hydroxylammonium chloride* CAS No.: 5470-11-1
 LC50_{leuciscus idus/96h}: 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

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Chemical: *sodium diethyldithiocarbamate* 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

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



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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

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

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
P260sh	Do not breathe dust/vapours.
P261sh	Avoid breathing dust/vapours.
P264W	Wash with water thoroughly after handling.
P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P301+312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
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.
P330	Rinse mouth.
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

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Safety Data Sheet

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

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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

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