

Safety Data Sheet

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

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Printing date: 01.10.2019	Date of issue: 18.06.2018	

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

1.1 Product identifier

REF 985049
 Product name NANOCOLOR Silver 3

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 1.5 mL Silver 3 (R0)
 1 x 11 mL Silver 3 (R2)
 1 x 11 mL Silver 3 (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



GHS08

Signal word WARNING

Hazard identification **Hazard classes/categories**

H373 STOT RE 2

2.1 Classification of the substance or mixture

1.5 mL Silver 3 (R0)

Signal word Do not need labelling as hazardous
 -

No hazard class

11 mL Silver 3 (R2)

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GHS08

Signal word

WARNING

Hazard identification

Hazard classes/categories

H373

STOT RE 2

11 mL Silver 3 (R3)

Signal word

Do not need labelling as hazardous

No hazard class

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).

1.5 mL Silver 3 (R0)

Do not need labelling as hazardous

Signal word: -

11 mL Silver 3 (R2)



GHS08

Signal word: WARNING

11 mL Silver 3 (R3)

Do not need labelling as hazardous

Signal word: -

2.3 Other hazards

Possible hazards from physicochemical properties

Information pertaining to particular risks to human and possible symptoms

Information pertaining to particular risks to the environment

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

1.5 mL Silver 3 (R0)

Chemical: citrate buffer solution

CAS No.: -

Classification: No criteria for classification or naming of chemical not required.

TSCA Inventory: all listed

KE No.: listed

Concentration: 10 - <25 %

acc. CLP (GHS): The criteria for classification are not fulfilled.

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11 mL Silver 3 (R2)

Chemical:	<i>ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)</i>	CAS No.:	6381-92-6
Classification:	H332, Acute Tox. 4 inh., H373, STOT RE 2		
Formula:	$C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$		
TSCA Inventory:	listed (CAS 139-33-3)		
EC No.:	205-358-3		
RTECS:	AH4410000; AH4375000	MFCID:	00150037
Concentration:	5 - <10 %		
acc. CLP (GHS):	H373, STOT RE 2		

11 mL Silver 3 (R3)

Chemical:	<i>dimethyl sulfoxide</i>	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	MFCID:	00002089
KE No.:	KE-32367		
Concentration:	80 - <100 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	<i>colour dye(s)</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed, <1%		
Concentration:	< 0,10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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.

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.

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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. 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): 12

Water hazard class (DE): 2

7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

7.3 Specific end use(s)

Product for analytical use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1.5 mL Silver 3 (R0)

Chemical: citrate buffer solution

CAS No.: -

11 mL Silver 3 (R2)

Chemical: ethyldinitrilo tetraacetic acid, di Na-salt (EDTA-Na)

DNEL: [inh] 1.5 mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 2.2 mg/L

PNEC = Predicted No Effect Concentration

CAS No.: 6381-92-6

11 mL Silver 3 (R3)

Chemical: dimethyl sulfoxide

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

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

CAS No.: 67-68-5

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Chemical: colour dye(s)

CAS No.: -

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

1.5 mL Silver 3 (R0)

Appearance: liquid

Colour: colourless

Odor: fusty, mouldy

pH:

5-6

Solubility in water:

0-100 %

11 mL Silver 3 (R2)

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

6-8

Solubility in water:

0-100 %

11 mL Silver 3 (R3)

Appearance: liquid

Colour: red

Odor: fusty, mouldy

pH:

6-8

Flash point:

95 °C

Specific gravity:

1,09 g/cm³

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

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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.

1.5 mL Silver 3 (R0)

Chemical: *citrate buffer solution*
 TSCA Inventory: all listed
 Korea Exist.Chem.Inventory: listed

CAS No.: -

11 mL Silver 3 (R2)

Chemical: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)*
 TSCA Inventory: listed (CAS 139-33-3)
 LD50_{orl rat}: 2800 mg/kg

CAS No.: 6381-92-6

Chronic Effects: May cause damage to organs through prolonged or repeated exposure.

11 mL Silver 3 (R3)

Chemical: *dimethyl sulfoxide*
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-32367
 LD50_{orl rat}: 14.5 g/kg
 LD50_{drm rat}: 40 g/kg

CAS No.: 67-68-5

Chemical: *colour dye(s)*
 TSCA Inventory: all listed, <1%

CAS No.: -

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

1.5 mL Silver 3 (R0)

Chemical: *citrate buffer solution*
 Water hazard class (DE): 0
 Storage class (VCI): 12

CAS No.: -

11 mL Silver 3 (R2)

Chemical: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)*
 PNEC_(fresh water): 2.2 mg/L
 PNEC = Predicted No Effected Concentration
 LC50_{fish/96h}: [4d] 41-1592 mg/L
 EC50_{daphnia/48h}: 140 mg/L
 IC50_{scenedesmus quadricauda/72h}: [72h] 2.77-1000 mg/L
 EC10_{pseudomonas putita/16h}: [EC10, 30h] 500 mg/L
 Water hazard class (DE): 2
 Dispersion coefficient_(octanol-water): -4.3
 Storage class (VCI): 12-13

CAS No.: 6381-92-6

11 mL Silver 3 (R3)

Chemical: *dimethyl sulfoxide*
 PNEC_(fresh water): 17 mg/L
 PNEC = Predicted No Effected 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

CAS No.: 67-68-5

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Dispersion coefficient_(octanol-water) : -1.35
 Storage class (VCI): 12

Chemical: *colour dye(s)* CAS No.: -

- 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

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**

SECTION 14: Transport information

14.1 - 14.4 Not necessary

- 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
 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**
H373 May cause damage to organs through prolonged or repeated exposure.
 - 16.1.2 List of relevant P phrases**
P260sh Do not breathe dust/vapours.
P280sh Wear protective gloves/eye protection.



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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.
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16.5 Sources of key data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS
Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated 03/2018
SUVA .CH, Limits in air at work 2009, revised on 01.2009
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

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

