

Safety Data Sheet

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

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

1.1 Product identifier

REF 985005
 Product name NANOCOLOR Ammonium 50

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 7 mL Ammonium 10-200 (RKT)
 1 x 20x 14 mg NANOFIX Ammonium-2 (R2)
 1 x 5 mL solution "NULL" (=ZERO)

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: 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/MSDS>

SECTION 2: Hazard identification

2.0 Classification of the complete product



GHS07

Signal word WARNING

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4

2.1 Classification of the substance or mixture

7 mL Ammonium 10-200 (RKT)

Signal word do not need labelling as hazardous
 -

No hazard class

20x 14 mg NANOFIX Ammonium-2 (R2)

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GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H302

Acute Tox. 4

5 mL solution "NULL" (=ZERO)

Signal word

do not need labelling as hazardous

No hazard class

2.2 Label elements

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier (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).

7 mL Ammonium 10-200 (RKT)

do not need labelling as hazardous

Signal word: -

20x 14 mg NANOFIX Ammonium-2 (R2)



GHS07

Signal word: WARNING

5 mL solution "NULL" (=ZERO)

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

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

Information pertaining to particular Risks to the Environment

Other Hazards

SECTION 3: Composition/Information on Ingredients

3.1 Substances or 3.2 Mixtures

7 mL Ammonium 10-200 (RKT)

Chemical: citrate buffer solution

Concentration: < 1,00 %

TSCA Inventory: all listed

KE No.: listed

acc. CLP (GHS): not necessary

CAS No.: -

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20x 14 mg NANOFIX Ammonium-2 (R2)

Chemical: *sodium nitroprusside*
 Concentration: 15 - <33 %
 Formula: $\text{Na}_2 [\text{Fe}(\text{CN})_5 \text{NO}]_2 \cdot 2 \text{H}_2 \text{O}$
 EC No.: 238-373-9
 RTECS: LJ89250000
 TSCA Inventory: listed (CAS 14402-89-2)
 KE No.: not listed
 acc. CLP (GHS): H302

CAS No.: 13755-38-9

Chemical: *dichloroisocyanuric acid, Na salt*
 Concentration: 3 - <10 %
 Formula: $\text{C}_3 \text{Cl}_2 \text{N}_3 \text{NaO}_3$
 Pseudonym: troclosene sodium, sodium 3,5-dichloro-2,4,6-trioxo-1,3,5-triazinan-1-ide
 REACH Reg. No.: 01-2119489371-33-xxxx
 EC No.: 220-767-7
 RTECS: XZ1900000
 TSCA Inventory: listed
 KE No.: KE-10215, >25% Toxic 2014-1-688
 acc. CLP (GHS): not necessary

CAS No.: 2893-78-9

Indice No.: 613-030-01-7
 MFCD: 00006036

5 mL solution "NULL" (=ZERO)

Chemical: *water*
 Concentration: 90 - <100 %
 Formula: $\text{H}_2 \text{O}$
 REACH Reg. No.: exempt, Annex IV
 EC No.: 231-791-2
 RTECS: ZC0110000
 TSCA Inventory: listed
 KE No.: KE-35400
 acc. CLP (GHS): not necessary

CAS No.: 7732-18-5

3.3 Remarks

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

Avoid inhalation of dust. ---

4.3 Indication of any immediate medical attention and special treatment needed

No additionally recommendations. ---

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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. 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): 6.1B
Water hazard class (DE): 3

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

7 mL Ammonium 10-200 (RKT)

Chemical: *citrate buffer solution*

CAS No.: -

20x 14 mg NANOFIX Ammonium-2 (R2)

Chemical: *sodium nitroprusside*

CAS No.: 13755-38-9

Chemical: *dichloroisocyanuric acid, Na salt*

NIOSH: not listed

CAS No.: 2893-78-9

[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

5 mL solution "NULL" (=ZERO)

Chemical: *water*

CAS No.: 7732-18-5

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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

7 mL Ammonium 10-200 (RKT)

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	12-13	
Solubility in water:	0-100 %	

20x 14 mg NANOFIX Ammonium-2 (R2)

Appearance: powder (solid)	Colour: rose	Odor: chloric
pH:	5-7	

5 mL solution "NULL" (=ZERO)

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	6-8	
Specific gravity:	1,00 g/cm ³	

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

Not necessary.

10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

7 mL Ammonium 10-200 (RKT)

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

20x 14 mg NANOFIX Ammonium-2 (R2)

Chemical: *sodium nitroprusside* CAS No.: 13755-38-9
 TSCA Inventory: listed (CAS 14402-89-2)
 Korea Exist.Chem.Inventory: not listed
 LD50_{orl rat}: 99 mg/kg
 LC_{Low orl rat}: 20 mg/kg
 Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

Chemical: *dichloroisocyanuric acid, Na salt* CAS No.: 2893-78-9
 TSCA Inventory: listed California Proposition 65 List: not listed
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
 Japan CSCL/PRTR: not listed Japan ISHL: not listed
 Japan PDSCL: not listed
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: KE-10215, >25% Toxic 2014-1-688
 LD50_{orl rat}: 550-1600 mg/kg
 LC_{Low orl hmn}: 3570 mg/kg
 LD50_{drm rbt}: >5000 mg/kg

5 mL solution "NULL" (=ZERO)

Chemical: *water* CAS No.: 7732-18-5
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-35400

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

7 mL Ammonium 10-200 (RKT)

Chemical: *citrate buffer solution* CAS No.: -
 Water hazard class (DE): 0
 Storage class (VCI): 12

20x 14 mg NANOFIX Ammonium-2 (R2)

Chemical: *sodium nitroprusside* CAS No.: 13755-38-9
 Water hazard class (DE): 3
 Storage class (VCI): 6.1 B

Chemical: *dichloroisocyanuric acid, Na salt* CAS No.: 2893-78-9
 Water hazard class (DE): 3
 Storage class (VCI): 13

5 mL solution "NULL" (=ZERO)

Chemical: *water* CAS No.: 7732-18-5

12.2 Persistence and degradability

not necessary

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- 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: No dangerous goods according the transport regulations

- 14.5 Environmental hazards**
not necessary, 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
- 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.
- 16.1.2 List of relevant P phrases**
P264W Wash with water thoroughly after handling.
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.

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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

TRGS 900, German engineering rules governing limits in air at work, updated September 2016

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