

# 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 931038  
 Product name VISOCOLOR ECO Manganese

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.

1 x 30 mL Mn-1  
 1 x 30 mL Mn-2  
 1 x 4 g Mn-3

### 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



GHS05 GHS07 GHS08

Signal word DANGER

Hazard identification	Hazard classes/categories
H290	Met. Corr. 1
H302	Acute Tox. 4 oral
H312	Acute Tox. 4 derm.
H314	Skin Corr. 1B
H317	Skin Sens. 1
H335	STOT SE 3
H351	Carc. 2
H373	STOT RE 2

### 2.1 Classification of the substance or mixture

30 mL Mn-1

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GHS07 GHS08

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

### 30 mL Mn-2



GHS05 GHS07

Signal word: DANGER

Hazard identification	Hazard classes/categories
H314	Skin Corr. 1B
H335	STOT SE 3

### 4 g Mn-3



GHS08

Signal word: WARNING

Hazard identification	Hazard classes/categories
H373	STOT RE 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). 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).

### 30 mL Mn-1



GHS07 GHS08

Signal word: WARNING

H317, H351

May cause an allergic skin reaction. Suspected of causing cancer.

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P201, P261sh, P280sh

Obtain special instructions before use. Avoid breathing dust/vapours. Wear protective gloves/eye protection.

## 30 mL Mn-2



GHS05



GHS07

Signal word: DANGER

H314

Causes severe skin burns and eye damage.

P260sh, P280sh, P303+361+353, P305+351+338, P310

Do not breathe dust/vapours. Wear protective gloves/eye protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

## 4 g Mn-3



GHS08

Signal word: WARNING

## 2.3 Other hazards

### Possible hazards from physicochemical properties

Generally in the case of pH values are less than 2 or higher than 11.5 then it is corrosive. 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

Causes varying degrees of acid burns on the skin, to the eyes and to the mucous membranes and wounds which do not heal quickly depending on the concentration, temperature and the exposure time. Vapours especially which steam from hot liquids and mist can have a severe irritant effect upon the eyes and the respiratory organs.

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

#### 30 mL Mn-1

Chemical: *paraformaldehyde*

CAS No.: 30525-89-4

Classification: H228, Flam. Sol. 1, H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H317, Skin Sens. 1, H318, Eye

Dam. 1, H332, Acute Tox. 4 inh., H335, STOT SE 3, H351, Carc. 2

Formula:  $(\text{CH}_2\text{O})_n$

TSCA Inventory: listed

RTECS: RV0540000

MFCD:

00133991

Concentration: 1 - <3 %

acc. CLP (GHS): H317, Skin Sens. 1, H351, Carc. 2

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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:  $\text{NH}_2\text{OH}\cdot\text{HCl}/\text{H}_4\text{ClNO}$   
 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, H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H317, Skin Sens. 1, H351, Carc. 2, H373, STOT RE 2

### 30 mL Mn-2

Chemical: *ammonia solution* CAS No.: 1336-21-6  
 Classification: H314, Skin Corr. 1B, H335, STOT SE 3, H400, Aquatic Acute 1  
 Formula:  $\text{NH}_3\cdot\text{H}_2\text{O}$   
 Pseudonym: ammonium hydroxide, Aqua ammonia, aqueous ammonia  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119488876-14-xxxx, 01-2119982985-14-XXXX  
 EC No.: 215-647-6 Indice No.: 007-001-01-2  
 RTECS: BQ9625000 MFCD: 00011418  
 KE No.: KE-01688, >10% Toxic 97-1-184  
 Concentration: 5 - <10 %  
 acc. CLP (GHS): H314, Skin Corr. 1B, H335, STOT SE 3

### 4 g Mn-3

Chemical: *L(+)-ascorbic acid* CAS No.: 50-81-7  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $\text{C}_6\text{H}_8\text{O}_6$   
 Pseudonym: vitamin C  
 TSCA Inventory: listed  
 REACH Reg. No.: exempt, Annex IV  
 EC No.: 200-066-2  
 RTECS: C17650000 MFCD: 00064328  
 KE No.: KE-01947  
 Concentration: 50 - <70 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)* CAS No.: 6381-92-6  
 Classification: H332, Acute Tox. 4 inh., H373, STOT RE 2  
 Formula:  $\text{C}_{10}\text{H}_{14}\text{N}_2\text{Na}_2\text{O}_8\cdot 2\text{H}_2\text{O}$   
 TSCA Inventory: listed (CAS 139-33-3)  
 EC No.: 205-358-3  
 RTECS: AH4410000; AH4375000 MFCD: 00150037  
 Concentration: 40 - <50 %  
 acc. CLP (GHS): H373, STOT RE 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.

#### 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.

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- 4.1.2 After EYE Contact**  
After contact with the eyes rinse thoroughly under running water with the eyelid wide open for min. 10 minutes with eye washing bottle, eye douche or running water (protect intact eye). Before (if possible) apply eye drops Proxymetacaine 0.5%, if the opening the eyelid convulsion is painful. Further treatment to be carried out by an eye specialist.
- 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. ---
- 4.1.4 After ORAL Intake**  
After oral intake lots of water with activated charcoal supplement should be drunk after it has been ingested. Do not induce vomiting under any circumstances. Do not make any efforts to neutralise it. Contact medical advice for possible consequences. ---
- 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**  
CORROSIVE DAMAGE: After SKIN CONTACT rinse with water for a long time. Efforts to neutralise the substance can frequently make matters worse. Apply glucocorticosteroides following inflammatory reactions. After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive chemical. Further treatment must to be carried out by an eye specialist. After INTAKE administer aluminium oxide drug suspensions. Administer a prophylaxis to counter pulmonary oedema following the INGESTION of corrosive aerosols. In the event of RESPIRATORY DISTRESSES ensure that the patient inhales oxygen. 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, respectively face 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
- 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.

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## 7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage.

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. 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

#### 30 mL Mn-1

Chemical: *paraformaldehyde* CAS No.: 30525-89-4

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: *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

#### 30 mL Mn-2

Chemical: *ammonia solution* CAS No.: 1336-21-6

DNEL: [inh] 14 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 0.0011 mg/L  
PNEC = Predicted No Effect Concentration

EU value: 20 ppm / 14 mg/m<sup>3</sup>  
TRGS 900 (DE): 20 ppm / 14 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 2 (I), Y  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 20 ppm / 14 mg/m<sup>3</sup>

NIOSH: [TWA] 25 ppm / 18 mg/m<sup>3</sup>

NIOSH STEL: 35 ppm / 27 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: Yes (TQ = 15000 lbs) - n/a; [TWA] 50 ppm / 35 mg/m<sup>3</sup>

#### 4 g Mn-3

Chemical: *L(+)-ascorbic acid* CAS No.: 50-81-7

Chemical: *ethylenedinitrilo tetraacetic acid, di Na-salt (EDTA-Na)* CAS No.: 6381-92-6

DNEL: [inh] 1.5 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 2.2 mg/L  
PNEC = Predicted No Effect Concentration

### 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



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

## 8.2.4 Skin protection

Recommended to avoid clothing damage, and 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

#### 30 mL Mn-1

Appearance: liquid

Colour: colourless

Odor: penetrative

#### 30 mL Mn-2

Appearance: liquid

Colour: colourless

Odor: aminic

pH:

9-10,5

Specific gravity:

0,98 g/cm<sup>3</sup>

Solubility in water:

0-100 %

#### 4 g Mn-3

Appearance: solid

Colour: white

Odor: odorless

pH:

5-7

Solubility in water:

0-30 %

### 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

Can react violently with organic material. No further data available.

### 10.4 Conditions to avoid

Not necessary. ---

### 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.

#### 30 mL Mn-1

Chemical:	<i>paraformaldehyde</i>	CAS No.:	30525-89-4
TSCA Inventory:	listed	California Proposition 65 List:	not listed
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL Yes
Japan CSCL/PRTR:	not listed, Japan PDSCCL: not listed		
Japan ISHL:	Article 57-2 (SDS required)		
South Korea TCCA:	not listed		
LD50 <sub>ori rat</sub> :	592 mg/kg		

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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.

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 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

## 30 mL Mn-2

Chemical: *ammonia solution* CAS No.: 1336-21-6  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 Exposure Routes: inhalation, ingestion (solution), skin and/or eye contact (solution/liquid)  
 Target Organs: Eyes, skin, respiratory system  
 Symptoms: irritation eyes, nose, throat; dyspnea (breathing difficulty), wheezing, chest pain; pulmonary edema; pink frothy sputum; skin burns, vesiculation; I  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes, Toxic Substances (Schedule 1) Yes (Item 53.)  
 Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious Substance  
 Japan ISHL: listed ≥0,2%/≥0,1%, Article 57-2 (SDS required)  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-01688, >10% Toxic 97-1-184  
 LD50<sub>orl rat</sub>: 350 mg/kg  
 LC<sub>LoWhl hmn</sub>: 5000 mg/m<sup>3</sup>  
 LC50<sub>ihl rat</sub>: [4h] 2000 ppm  
 LD50<sub>drm rbt</sub>: [5min] 5000 ppm  
 Acute Effects: Cause after inhalation of vapours/dust, impairments of health when ingested in small quantities.

## 4 g Mn-3

Chemical: *L(+)-ascorbic acid* CAS No.: 50-81-7  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-01947  
 LD50<sub>orl rat</sub>: 11900 mg/kg  
 LD50<sub>ivn mus</sub>: 518 mg/kg  
  
 Chemical: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)* CAS No.: 6381-92-6  
 TSCA Inventory: listed (CAS 139-33-3)  
 LD50<sub>orl rat</sub>: 2800 mg/kg

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

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 30 mL Mn-1

Chemical: *paraformaldehyde* CAS No.: 30525-89-4  
 Water hazard class (DE): 2  
 Storage class (VCI): 11



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Chemical:	<i>hydroxylammonium chloride</i>	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		

**30 mL Mn-2**

Chemical:	<i>ammonia solution</i>	CAS No.:	1336-21-6
Avoid contact of substance/mixture to environment.			
PNEC(fresh water) :	0.0011 mg/L		
PNEC = Predicted No Effect Concentration			
LC50 <sub>fish/96h</sub> :	0,89 mg/L		
EC50 <sub>daphnia/48h</sub> :	101 mg/L		
Water hazard class (DE):	2	WGK No.:	0211
Storage class (VCI):	8 B		

**4 g Mn-3**

Chemical:	<i>L(+)-ascorbic acid</i>	CAS No.:	50-81-7
Water hazard class (DE):	1	WGK No.:	0737
Storage class (VCI):	13		

Chemical:	<i>ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)</i>	CAS No.:	6381-92-6
PNEC(fresh water) :	2.2 mg/L		
PNEC = Predicted No Effect Concentration			
LC50 <sub>fish/96h</sub> :	[4d] 41-1592 mg/L		
EC50 <sub>daphnia/48h</sub> :	140 mg/L		
IC50 <sub>scenedesmus quadricauda/72h</sub> :	[72h] 2.77-1000 mg/L		
EC10 <sub>pseudomonas putita/16h</sub> :	[EC10, 30h] 500 mg/L		
Water hazard class (DE):	2		
Dispersion coefficient <sub>(octanol-water)</sub> :	-4.3		
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

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. Empty containers of corrosive reagents prior to disposal, rinse with water.

## 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

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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](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

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

#### 16.1.2 List of relevant P phrases

P201	Obtain special instructions before use.
P260sh	Do not breathe dust/vapours.
P261sh	Avoid breathing dust/vapours.
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.
P302+352	IF ON SKIN: Wash with plenty of water.
P303+361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P330	Rinse mouth.
P390	Absorb spillage to prevent material damage.
P403+233	Store in a well-ventilated place. Keep container tightly closed.

### 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.

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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, 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

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