

# Safety Data Sheet

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

REF: 920015

VISOCOLOR HE Chlorine

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Printing date: 02.06.2020

Date of issue: 26.07.2018

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

### 1.1 Product identifier

REF 920015  
Product name VISOCOLOR HE Chlorine

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 24 g Cl<sub>2</sub> -1  
1 x 100 mL Cl<sub>2</sub> -2  
1 x 30 mL Cl<sub>2</sub> -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](mailto:sds@mn-net.com) ([msds@mn-net.com](mailto:msds@mn-net.com))

### 1.4 Emergency telephone number

Information not necessary.

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

#### 2.1 Classification of the substance or mixture

##### 24 g Cl<sub>2</sub> -1

Signal word Do not need labelling as hazardous

No hazard class -

##### 100 mL Cl<sub>2</sub> -2

Signal word Do not need labelling as hazardous

No hazard class -

##### 30 mL Cl<sub>2</sub> -3

Signal word Do not need labelling as hazardous

No hazard class -

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## 2.2 Label elements

### 24 g Cl<sub>2</sub> -1

Do not need labelling as hazardous  
Signal word: -

### 100 mL Cl<sub>2</sub> -2

Do not need labelling as hazardous  
Signal word: -

### 30 mL Cl<sub>2</sub> -3

Do not need labelling as hazardous  
Signal word: -

## 2.3 Other hazards

### Possible hazards from physicochemical properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit. An individual package has considerably less hazardous potential. ---

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

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### Information pertaining to particular risks to the environment

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### Other hazards

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 24 g Cl<sub>2</sub> -1

Chemical:	<i>boric acid</i>	CAS No.:	10043-35-3
Classification:	H360FD, Repr. 1B		
Formula:	H <sub>3</sub> BO <sub>3</sub>		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119486683-25-0024		
<b>SVHC listed:</b>	<b>listed (18/06/2010)</b>		
EC No.:	233-139-2	Indice No.:	005-007-00-2
RTECS:	ED4550000	MFCD:	00011337
KE No.:	KE-03499		
Concentration:	0.5 - <5.5 %	Correlation factor:	x 0.17 (= %B)
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):	The criteria for classification are not fulfilled.		

Chemical:	<i>tri-sodium citrate</i>	CAS No.:	6132-04-3
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C <sub>6</sub> H <sub>5</sub> Na <sub>3</sub> O <sub>7</sub> •2H <sub>2</sub> O		
TSCA Inventory:	listed (CAS 68-04-2)		
REACH Reg. No.:	01-2119457027-40-xxxx		
EC No.:	200-675-3		
RTECS:	GE8300000		
KE No.:	KE-20843		
Concentration:	40 - <60 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate* CAS No.: 6283-63-2  
 Classification: H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm.  
 Formula: C<sub>10</sub> H<sub>16</sub> N<sub>2</sub> •H<sub>2</sub> O  
 Pseudonym: N,N-diethylbenzene-1,4-diammonium sulfate  
 TSCA Inventory: listed (CAS 6065-27-6)  
 EC No.: 228-500-6 Indice No.: 612-080-00-X  
 RTECS: SS9625000 MFCD: 00012993  
 Concentration: 1 - <5 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *potassium dihydrogen phosphate* CAS No.: 7778-77-0  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: KH<sub>2</sub> PO<sub>4</sub>  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119490224-41-XXXX  
 EC No.: 231-913-4  
 RTECS: TC6615500 MFCD: 00011401  
 KE No.: KE-28622  
 Concentration: 5 - <25 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

**100 mL Cl<sub>2</sub> -2**

Chemical: *phosphate buffer solution* CAS No.: -  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: K/Na<sub>1-3</sub> H<sub>2-0</sub> PO<sub>4</sub> • x H<sub>2</sub> O  
 TSCA Inventory: all listed  
 KE No.: listed  
 Concentration: 5 - <20 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

**30 mL Cl<sub>2</sub> -3**

Chemical: *potassium iodide* CAS No.: 7681-11-0  
 Classification: H319, Eye Irrit. 2  
 Formula: KI  
 TSCA Inventory: listed  
 REACH Reg. No.: YES, confidential  
 EC No.: 231-659-4  
 RTECS: TT2975000 MFCD: 00011405  
 KE No.: not listed  
 Concentration: 1 - <10 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *water* CAS No.: 7732-18-5  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula: H<sub>2</sub> O  
 TSCA Inventory: listed  
 REACH Reg. No.: exempt, Annex IV  
 EC No.: 231-791-2  
 RTECS: ZC0110000  
 KE No.: KE-35400  
 Concentration: 90 - <100 %  
 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%.

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**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

Place insured person out of danger zone to fresh air immediately.

**4.1.1 After SKIN Contact**



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Not necessary.

**4.1.2 After EYE Contact**  
Not necessary.

**4.1.3 After INHALATION of vapours**  
Not necessary. ---

**4.1.4 After ORAL Intake**  
Not necessary. ---

**4.2 Most important symptoms and effects, both acute and delayed**

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**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.

**5.2 Special hazards arising from the substance or mixture**

None.

**5.3 Advice for firefighters**

No, for listed product. Product package burns like paper or plastic.

**5.4 Additional information**

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## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**

Do not breathe vapours. Not necessary.

**6.2 Environmental precautions**

not necessary

**6.3 Methods and material for containment and cleaning up**

Clean working area with water. Flush used water into drains.

**6.4 Reference to other sections**

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## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

Handling in accordance with the test instruction, that comes with the product.

**7.2 Conditions for safe storage, including any incompatibilities**

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

Storage class (VCI): 6.1D

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.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**24 g Cl<sub>2</sub> -1**

Chemical: *boric acid* CAS No.: 10043-35-3

DNEL: [derm] 392 mg/kg bw/day; [inh] 8.3 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 2.9 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 0.5 E 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: [Bor][MAK] 1,8e/[STEL] 1,8e mg/m<sup>3</sup>

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: *tri-sodium citrate* CAS No.: 6132-04-3

Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate* CAS No.: 6283-63-2

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: *potassium dihydrogen phosphate* CAS No.: 7778-77-0

**100 mL Cl<sub>2</sub> -2**

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

**30 mL Cl<sub>2</sub> -3**

Chemical: *potassium iodide* CAS No.: 7681-11-0

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

### 8.2 Exposure controls

Not necessary. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

**8.2.1 Respiratory protection**

Not necessary.

**8.2.2 Hand protection**

Not necessary.

**8.2.3 Eye protection**

Not necessary.

**8.2.4 Skin protection**

Not necessary.

**8.2.5 Personal hygiene**

Information not necessary.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**24 g Cl<sub>2</sub> -1**

Appearance: powder (solid)	Colour: colourless	Odor: odorless
pH: 6		
Solubility in water:	0-5 %	

**100 mL Cl<sub>2</sub> -2**

Appearance: liquid	Colour: colourless	Odor: odorless
pH: 6-7		
Specific gravity:	1,02 g/cm <sup>3</sup>	
Solubility in water:	0-100 %	

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## 30 mL Cl<sub>2</sub> -3

Appearance: liquid

Colour: colourless

Odor: odorless

Flash point:

N/A

Specific gravity:

1.0 g/cm<sup>3</sup>

## 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

None

### 10.2 Chemical stability

No known instability.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Not known. ---

### 10.5 Incompatible materials

Not known.

### 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.

#### 24 g Cl<sub>2</sub> -1

Chemical:	<i>boric acid</i>	CAS No.:	10043-35-3
TSCA Inventory:	listed	California Proposition 65 List:	not listed
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	PRTR: ≥1,0%B class I, Japan PDSCL: not listed		
Japan ISHL:	not listed		
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-03499		
LD50 <sub>orl rat</sub> :	>3765 mg/kg		
LC50 <sub>ihl rat</sub> :	> 2 mg/m <sup>3</sup>		
LD50 <sub>drm rat</sub> :	>2000 mg/kg		

EU carcinogen:	R <sub>D</sub> 1B, R <sub>F</sub> 1B
TRGS 905 (DE):	R <sub>E</sub> 2, R <sub>F</sub> 2

Chemical:	<i>tri-sodium citrate</i>	CAS No.:	6132-04-3
TSCA Inventory:	listed (CAS 68-04-2)		
Korea Exist.Chem.Inventory:	KE-20843		
LD50 <sub>orl rat</sub> :	>8000 mg/kg		

Chemical:	<i>N,N-Diethyl-1,4-phenylene diammonium sulfate</i>	CAS No.:	6283-63-2
TSCA Inventory:	listed (CAS 6065-27-6)	California Proposition 65 List:	not listed
Australia NICNAS:	not listed	Canada CEPA 1999:	not listed
Japan CSCL/PRTR:	not listed, Japan PDSCL: not listed		
Japan ISHL:	not listed		
South Korea TCCA:	not listed		
LD50 <sub>orl rat</sub> :	497 mg/kg		





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## 30 mL Cl<sub>2</sub> -3

Chemical: *potassium iodide*  
 LC50<sub>fish/96h</sub>: 2190 mg/L  
 Water hazard class (DE): 1  
 Dispersion coefficient<sub>(octanol-water)</sub>: 0.04  
 Storage class (VCI): 12-13

CAS No.: 7681-11-0

Chemical: *water*

CAS No.: 7732-18-5

### 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

Not necessary.

### 13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains. **Not for mercury containing test solutions, please collect for disposal of hazardous waste.**

## SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according the transport regulations

### 14.5 Environmental hazards

none

### 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  
 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

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## SECTION 16: Other information

### 16.1 List of H and P phrases

#### 16.1.1 List of relevant H phrases

#### 16.1.2 List of relevant P phrases

### 16.2 Training advice



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Regular safety training.

**16.3 Recommended restriction on use**

None

**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 790/2009/EU adaptation of CLP regulation 1272/2008/EU to technical and scientific progress
- 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
- KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

**Revisions/Updates**

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

