

Safety Data Sheet

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

REF: 931235

VISOCOLOR ECO Chlorine 1, free,total, refill

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Printing date: 12.05.2021

Date of issue: 21.06.2018

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

1.1 Product identifier

REF

931235

Product name

VISOCOLOR ECO Chlorine 1, free,total, refill

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 6 g Cl₂-1

1 x 30 mL Cl₂-2

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

Valenciennner Str. 11, 52355 Düren, GERMANY

Tel.: +49 2421 969 0

E-mail: sds@mn-net.com (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

6 g Cl₂-1

Signal word

Do not need labelling as hazardous

-

No hazard class

30 mL Cl₂-2

Signal word

Do not need labelling as hazardous

-

No hazard class

2.2 Label elements

6 g Cl₂-1

Do not need labelling as hazardous

Signal word: -

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30 mL Cl₂ -2

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

Information pertaining to particular risks to the environment

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

6 g Cl₂ -1

Chemical: *boric acid*

CAS No.: 10043-35-3

Classification: H360FD, Repr. 1B

Formula: H₃BO₃

TSCA Inventory: listed

REACH Reg. No.: 01-2119486683-25-0024

SVHC listed: listed (18/06/2010)

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: *tri-sodium citrate*

CAS No.: 6132-04-3

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

Formula: C₆H₅Na₃O₇•2H₂O

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.

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: C₁₀H₁₆N₂•H₂O

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.

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Chemical:	potassium dihydrogen phosphate	CAS No.:	7778-77-0
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	KH ₂ PO ₄		
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.		

30 mL Cl₂ -2

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:	TT29750000	MFCD:	00011405
KE No.:	not listed		
Concentration:	1 - <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%.

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

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

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

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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

6 g Cl₂ -1

Chemical: *boric acid*

CAS No.: 10043-35-3

DNEL: [derm] 392 mg/kg bw/day; [inh] 8.3 mg/m³

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/m³

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/m³

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

30 mL Cl₂ -2

Chemical: *potassium iodide*

CAS No.: 7681-11-0

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

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- 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

6 g Cl₂ -1

Appearance: powder (solid)

Colour: colourless

Odor: odorless

pH:

6

Solubility in water:

0-100 %

30 mL Cl₂ -2

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

9

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

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.

6 g Cl₂ -1

Chemical: *boric acid*

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_{orl rat}:

>3765 mg/kg

LC50_{ihl rat}:

> 2 mg/m³

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LD50_{dm rat} : >2000 mg/kg

EU carcinogen: R_D 1B, R_F 1B
TRGS 905 (DE): R_E 2, R_F 2

Chemical: *tri-sodium citrate* CAS No.: 6132-04-3
TSCA Inventory: listed (CAS 68-04-2)
Korea Exist.Chem.Inventory: KE-20843
LD50_{orl rat} : >8000 mg/kg

Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate* 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_{orl rat} : 497 mg/kg

Chemical: *potassium dihydrogen phosphate* CAS No.: 7778-77-0
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-28622
LD50_{orl rat} : 4640 mg/kg
LD50_{dm rat} : >4640 mg/kg

30 mL Cl₂ -2

Chemical: *potassium iodide* CAS No.: 7681-11-0
TSCA Inventory: listed
Korea Exist.Chem.Inventory: not listed
LD50_{orl rat} : 2779 mg/kg

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

6 g Cl₂ -1

Chemical: *boric acid* CAS No.: 10043-35-3
PNEC(fresh water) : 2.9 mg/L
PNEC = Predicted No Effect Concentration
LC50_{fish/96h} : [4d] 79.7 mg/L
EC50_{daphnia/48h} : 91-165 mg/L
IC50_{scenedesmus quadricauda/72h} : [72h] 52.4 mg/L
EC10_{pseudomonas putida/16h} : [EC10] 10 mg/L
Water hazard class (DE): 1 WGK No.: 0315
Dispersion coefficient(octanol-water) : -1.09
Storage class (VCI): 6.1 D

Chemical: *tri-sodium citrate* CAS No.: 6132-04-3
LC50_{fish/96h} : 18-32 g/L
EC50_{daphnia/48h} : 5.6-10 g/L
EC50_{chlorella vulgaris/5d} : >18-32 g/L
EC10_{pseudomonas putida/16h} : EC50_{ps. fluorescens/8h} : >1.8-3.2 g/L
Water hazard class (DE): 1
Storage class (VCI): 12-13

Chemical: *N,N-Diethyl-1,4-phenylene diammonium sulfate* CAS No.: 6283-63-2
Water hazard class (DE): 3
Storage class (VCI): 12-13

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Chemical: *potassium dihydrogen phosphate*
LC50_{leuciscus idus/96h}: 90048h mg/L
Water hazard class (DE): 1
Storage class (VCI): 12-13

CAS No.: 7778-77-0

30 mL Cl₂ -2

Chemical: *potassium iodide*
LC50_{fish/96h}: 2190 mg/L
Water hazard class (DE): 1
Dispersion coefficient_(octanol-water): 0.04
Storage class (VCI): 12-13

CAS No.: 7681-11-0

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.

SECTION 14: Transport information

14.1 - 14.4 Not necessary

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
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

Regular safety training.

16.3 Recommended restriction on use

None

16.4 Further information

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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, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated 03/2019

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