

Safety Data Sheet

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

REF: 931050

VISOCOLOR ECO Anionic detergents

Page: 1/12

Printing date: 01.10.2019

Date of issue: 12.12.2018

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

1.1 Product identifier

REF 931050
Product name VISOCOLOR ECO Anionic detergents

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 AD-1
1 x 30 mL AD-2
1 x 10 mL AD-3
2 x 50 mL AD-4

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



GHS06 GHS07 GHS08

Signal word DANGER

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H331	Acute Tox. 3 inh.
H336	STOT SE 3
H351	Carc. 2
H361	Repr. 2
H373	STOT RE 2

2.1 Classification of the substance or mixture

30 mL AD-1

Do not need labelling as hazardous

Safety Data Sheet

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

REF: 931050	VISOCOLOR ECO Anionic detergents	Page: 2/12
Printing date: 01.10.2019	Date of issue: 12.12.2018	

Signal word -
No hazard class

30 mL AD-2

Signal word Do not need labelling as hazardous
-
No hazard class

10 mL AD-3

Signal word Do not need labelling as hazardous
-
No hazard class

50 mL AD-4



GHS06 GHS07 GHS08

Signal word DANGER

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H331	Acute Tox. 3 inh.
H336	STOT SE 3
H351	Carc. 2
H361	Repr. 2
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).

30 mL AD-1

Do not need labelling as hazardous
Signal word: -

30 mL AD-2

Do not need labelling as hazardous
Signal word: -

10 mL AD-3

Do not need labelling as hazardous
Signal word: -

50 mL AD-4



GHS06 GHS07 GHS08

Safety Data Sheet

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

REF: 931050	VISOCOLOR ECO Anionic detergents	Page: 3/12
Printing date: 01.10.2019	Date of issue: 12.12.2018	

Signal word: DANGER

H331, H351, H361

Toxic if inhaled. Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

P201, P261sh, P280sh, P311, P405

Obtain special instructions before use. Avoid breathing dust/vapours. Wear protective gloves/eye protection. Call a POISON CENTER/doctor. Store locked up.

2.3 Other hazards

Possible hazards from physicochemical properties

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

Cause severe after inhalation of vapours, impairments of health or can lead to death even when only ingested in small quantities. Cause after oral intake, impairments of health when ingested in small quantities. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. -

Information pertaining to particular risks to the environment

PBT: not applicable

vPvB: not applicable

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

30 mL AD-1

Chemical: *phosphate buffer solution*

CAS No.: -

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

Formula: $K/Na_{1-3} H_{2-0} PO_4 \cdot x H_2 O$

TSCA Inventory: all listed

KE No.: listed

Concentration: 1 - <5 %

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

30 mL AD-2

Chemical: *methylene blue*

CAS No.: 61-73-4

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

Formula: $C_{16} H_{18} ClN_3 S$

Pseudonym: Basic Blue 9, phenothiazin-5-ium, 3,7-bis(dimethylamino)-, chloride (1:1)

TSCA Inventory: listed

EC No.: 200-515-2

RTECS: SO5600000

MFCD:

00012111

KE No.: KE-06942

Concentration: < 1,00 %

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

Chemical: *sulfuric acid (diluted < 5 %)*

CAS No.: 7664-93-9d

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

Formula: $H_2 SO_4 \cdot H_2 O$

TSCA Inventory: listed

REACH Reg. No.: 01-2119458838-20-xxxx

EC No.: 231-639-5

Indice No.:

016-020-00-8

RTECS: WS5600000

KE No.: KE-32570

Concentration: < 0,10 %

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

10 mL AD-3

Safety Data Sheet

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

REF: 931050

VISOCOLOR ECO Anionic detergents

Page: 5/12

Printing date: 01.10.2019

Date of issue: 12.12.2018

4.3 Indication of any immediate medical attention and special treatment needed

In the event of RESPIRATORY DISTRESSES ensure that the patient inhales oxygen. ---

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. Wear suitable protective gloves (see 8.2.2). 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. Not for organic solvents (see section 13).

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 only in well-ventilated working areas.

7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage. Products containing also toxic substances should be kept locked up.

Storage class (VCI):

8B

Water hazard class (DE):

3

7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage, and store in a well-ventilated place at max. 25 °C, away or preferably separate from substances with which a hazardous reaction could take place, so that they are not immediately accessible to outside parties. 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 AD-1

Chemical: *phosphate buffer solution*

CAS No.: -

30 mL AD-2

Chemical: *methylene blue*

CAS No.: 61-73-4

Safety Data Sheet

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

REF: 931050

VISOCOLOR ECO Anionic detergents

Page: 7/12

Printing date: 01.10.2019

Date of issue: 12.12.2018

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

30 mL AD-1

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	10,5	
Solubility in water:	0-100 %	

30 mL AD-2

Appearance: liquid	Colour: blue	Odor: odorless
pH:	1-2	
Specific gravity:	1,0 g/cm ³	
Solubility in water:	0-100 %	

10 mL AD-3

Appearance: liquid	Colour: blue	Odor: odorless
pH:	0-1	
Specific gravity:	1,01 g/cm ³	
Solubility in water:	0-100 %	

50 mL AD-4

Appearance: liquid	Colour: colourless	Odor: like chloroform
Odor limit:	50-200 mg/m ³	
Melting point:	-63.5 °C	
Boiling point:	61.7 °C	
Vapour pressure (20°C):	211 hPa	
Vapour density _(air=1) :	4,12	
Specific gravity:	1,48 g/cm ³	
Solubility in water:	< 1 %	
Flashing temperature:	982 °C	
Volatiles by volume:	1035 g/m 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

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.

Safety Data Sheet

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

REF: 931050

VISOCOLOR ECO Anionic detergents

Page: 8/12

Printing date: 01.10.2019

Date of issue: 12.12.2018

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 AD-1

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

30 mL AD-2

Chemical: *methylene blue* CAS No.: 61-73-4
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-06942
 LD50_{orl rat}: 1180 mg/kg

Chemical: *sulfuric acid* CAS No.: 7664-93-9d
 TSCA Inventory: listed California Proposition 65 List: not listed
 ACGIH: 1 ppm
 Exposure Routes: inhalation, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system, teeth
 Symptoms: irritation eyes, skin, nose
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
 Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious Substance
 Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-2 (SDS required)
 South Korea TCCA: Accident Precaution Chemical Yes
 Korea Exist.Chem.Inventory: KE-32570
 LD50_{orl rat}: 2140 mg/kg
 LC50_{ihl rat}: [8h] 600/ [4h] 850 mg/m³
 TRGS 905 (DE): R_F C

10 mL AD-3

Chemical: *methylene blue* CAS No.: 61-73-4
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-06942
 LD50_{orl rat}: 1180 mg/kg

Chemical: *sulfuric acid* CAS No.: 7664-93-9d
 TSCA Inventory: listed California Proposition 65 List: not listed
 ACGIH: 1 ppm
 Exposure Routes: inhalation, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system, teeth
 Symptoms: irritation eyes, skin, nose
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
 Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious Substance
 Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-2 (SDS required)
 South Korea TCCA: Accident Precaution Chemical Yes
 Korea Exist.Chem.Inventory: KE-32570
 LD50_{orl rat}: 2140 mg/kg
 LC50_{ihl rat}: [8h] 600/ [4h] 850 mg/m³
 TRGS 905 (DE): R_F C

50 mL AD-4

Chemical: *chloroform* CAS No.: 67-66-3
 TSCA Inventory: listed California Proposition 65 List: listed: cancer, developmental
 ACGIH: 10 ppm
 Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact
 Target Organs: Liver, kidneys, heart, eyes, skin, central nervous system
 Symptoms: irritation eyes, skin; dizziness, mental dullness, nausea, confusion; headache, lassitude (weakness, exhaustion); anesthesia; enlarged liver; [potent
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes
 Japan CSCL/PRTR: PCA Yes, PRTR: ≥1,0% class I, Japan PDSCL: Deleterious Substance

www.mn-net.com



Safety Data Sheet

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

REF: 931050

VISOCOLOR ECO Anionic detergents

Page: 9/12

Printing date: 01.10.2019

Date of issue: 12.12.2018

Japan ISHL: listed $\geq 1,0\%$ / $\geq 0,1\%$, Article 57-1+2 (Labelling&SDS required)

South Korea TCCA: not listed

Korea Exist.Chem.Inventory: KE-34076, Toxic 97-1-281

LD50_{orl rat}: 908 mg/kg

LC_{LoWi}h_l h_{mn}: 25000 mg/m³

LC_{LoWo}l h_{um}/r_{bt}: 140/500 mg/m³

LC50_{ihl rat}: 47.7_{4h} g/m³

LD50_{drm rat}: > 15800 mg/kg

LD50_{drm rbt}: > 20 g/kg

Acute Effects: Cause severe after inhalation of vapours, impairments of health or can lead to death even when only ingested in small quantities. Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

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

Carcinogenic Effects: Suspected of causing cancer. Suspected of damaging fertility or the unborn child.

EU carcinogen: carc. 2, repr. 2

TRGS 905 (DE): K2, M3, R_E 3

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

30 mL AD-1

Chemical: *phosphate buffer solution*

CAS No.: -

Water hazard class (DE): 1

Storage class (VCI): 12

30 mL AD-2

Chemical: *methylene blue*

CAS No.: 61-73-4

Water hazard class (DE): 2

Storage class (VCI): 12

Chemical: *sulfuric acid*

CAS No.: 7664-93-9d

PNEC_(fresh water): 2.5 µg/L

PNEC = Predicted No Effected Concentration

LC50_{fish/96h}: [NOEC, 65d] 25 µg/L

EC50_{daphnia/48h}: 100 mg/L

EC10_{pseudomonas putita/16h}: [72h] 100 mg/L

Water hazard class (DE): 1 WGK No.: 0182

Storage class (VCI): 8 B

10 mL AD-3

Chemical: *methylene blue*

CAS No.: 61-73-4

Water hazard class (DE): 2

Storage class (VCI): 12

Chemical: *sulfuric acid*

CAS No.: 7664-93-9d

PNEC_(fresh water): 2.5 µg/L

PNEC = Predicted No Effected Concentration

LC50_{fish/96h}: [NOEC, 65d] 25 µg/L

EC50_{daphnia/48h}: 100 mg/L

EC10_{pseudomonas putita/16h}: [72h] 100 mg/L

Water hazard class (DE): 1 WGK No.: 0182

Storage class (VCI): 8 B

50 mL AD-4

Chemical: *chloroform*

CAS No.: 67-66-3

PNEC_(fresh water): 0.146 mg/L

PNEC = Predicted No Effected Concentration

LC50_{fish/96h}: 18 mg/L

EC50_{daphnia/48h}: 6.3_{21d} NOEC mg/L

Water hazard class (DE): 3 WGK No.: 0054

Dispersion coefficient_(octanol-water): 1.97

Storage class (VCI): 12

Safety Data Sheet

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

REF: 931050	VISOCOLOR ECO Anionic detergents	Page: 10/12
Printing date: 01.10.2019	Date of issue: 12.12.2018	

- 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). Or collect in solvent waste (waste code number 07 07 04). Close container tightly.

- 13.1 Waste treatment methods**
Normally it is possible to empty small amounts (diluted!) into drains.
Dispose of contents/container to regulated waste treatment.

SECTION 14: Transport information

14.1. UN number: 3316 **14.2. UN proper shipping name: Chemical Kit**
14.3. Class: 9 **14.4. Packing group: II**
Road transport
 Classification code: M11 Tunnel restriction code: E
 Limited Quantity: acc. ADR 3.3.1/251: see LQ in Alternative declaration for transportation
Air transport
 PAX: 960 max. weight PAX: 10 KG
 CAO: 960 max. weight CAO: 10 KG
Maritime transport
 EmS: F-A, S-P Storage category: A

Or use **Alternative declaration for transportation:**

14.1 UN number: 1888 **14.2 UN proper shipping name: Chloroform**
14.3 Class: 6.1 **14.4 Packing group: III**
Road transport
 Classification code: T1 Tunnel restriction code: E
 Limited Quantity: 5 L
 Excepted Quantity: E 1
Air transport
 PAX: 680 max. weight PAX: 60 L
 CAO: 680 max. weight CAO: 220 L
Maritime transport
 EmS: F-A, S-A Storage category: A

- 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



Safety Data Sheet

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

REF: 931050

VISOCOLOR ECO Anionic detergents

Page: 11/12

Printing date: 01.10.2019

Date of issue: 12.12.2018

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

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
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.
P260D	Do not breathe vapours.
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.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311	Call a POISON CENTER/doctor.
P330	Rinse mouth.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

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.
 MACHEREY-NAGEL GmbH & Co. KG makes NO REPRESENTATIONS or WARRANTIES, either expressed or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly MACHEREY-NAGEL GmbH & Co. KG will not be responsible for damages resulting from use of or reliance upon this information. See terms and conditions at the end of our price lists for additional information.

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
 Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
 TRGS 905, German engineering rules governing carcinogens and mutagens, updated 03/18



Safety Data Sheet

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

REF: 931050

VISOCOLOR ECO Anionic detergents

Page: 12/12

Printing date: 01.10.2019

Date of issue: 12.12.2018

KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

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