

# Safety Data Sheet

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

REF: 931227

VISOCOLOR ECO Fluoride, refill pack

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Printing date: 02.06.2020

Date of issue: 25.07.2018

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

### 1.1 Product identifier

REF 931227  
Product name VISOCOLOR ECO Fluoride, refill pack

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.

3 x 30 mL F-1

### 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

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

### 2.1 Classification of the substance or mixture

30 mL F-1



GHS07

Signal word

WARNING

#### Hazard identification

#### Hazard classes/categories

H290	Met. Corr. 1
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H335	STOT SE 3

### 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).

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).

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30 mL F-1



GHS07

Signal word: WARNING

## 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 after inhalation of vapours/dust, impairments of health when ingested in small quantities. ---

### 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

30 mL F-1

Chemical: *zirconium(IV) dichloride oxide* CAS No.: 13520-92-8  
 Classification: No criteria for classification or naming of chemical not required.  
 Formula:  $ZrOCl_2 \cdot 8 H_2O$   
 TSCA Inventory: not listed  
 EC No.: 231-717-9  
 RTECS: ZH7250000 MFCD: 00149898  
 KE No.: not listed  
 Concentration: < 1.00 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *1,8-dihydroxy-2-(4-sulfophenylazo)naphthalin-3,6-disulfonic acid, trisodium salt* CAS No.: 23647-14-5  
 Classification: H315, Skin Irrit. 2, H319, Eye Irrit. 2  
 Formula:  $C_{16}H_9N_2Na_3O_{11}S_3$   
 Pseudonym: 4,5-dihydroxy-3-[2-(4-sulfophenyl)diazenyl]-2,7-naphthalenedisulfonic acid, trisodium salt  
 TSCA Inventory: listed  
 EC No.: 245-803-9 MFCD: 00003952  
 Concentration: 0.2 - <1 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *hydrochloric acid* CAS No.: 7647-01-0  
 Classification: H290, Met. Corr. 1, H314, Skin Corr. 1B, H331, Acute Tox. 3 inh.  
 Formula:  $HCl \cdot H_2O$   
 Pseudonym: aqueous hydrogen chloride  
 TSCA Inventory: listed  
 REACH Reg. No.: 01-2119484862-27-xxxx  
 EC No.: 231-595-7 Indice No.: 017-002-01-X  
 RTECS: MW4025000  
 KE No.: KE-20189, >10% Toxic 97-1-203, Acc. Precaution Chem.  
 Concentration: 10 - <25 %  
 acc. CLP (GHS): H290, Met. Corr. 1, H315, Skin Irrit. 2, H319, Eye Irrit. 2, H335, STOT SE 3

### 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

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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. 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

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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

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

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## 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

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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): 8B

Water hazard class (DE): 2

#### 7.2.1 Requirements for stock rooms and containers

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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

#### 30 mL F-1

Chemical: *zirconium(IV) dichloride oxide*

CAS No.: 13520-92-8

TRGS 900 (DE): 1<sub>Zr</sub> E mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 1 (I), Sah  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 5 e mg/m<sup>3</sup>

NIOSH: TWA 5 / ST 10<sub>Zr</sub> 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: TWA 5<sub>Zr</sub> mg/m<sup>3</sup>

Chemical: *1,8-dihydroxy-2-(4-sulfophenylazo)naphthalin-3,6-disulfonic acid, tri Na salt* CAS No.: 23647-14-5

Chemical: *hydrochloric acid*

CAS No.: 7647-01-0

DNEL: [inh] 8 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 36 µg/L  
PNEC = Predicted No Effect Concentration

EU value: [TWA] 5 ppm / 8 mg/m<sup>3</sup>; [STEL] 10 ppm / 15 mg/m<sup>3</sup>

TRGS 900 (DE): 2 mL/m<sup>3</sup> / 3 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: 2 ppm / 3\* mg/m<sup>3</sup>

NIOSH: [C] 5 ppm / 7 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: List of highly hazardous chemicals, toxics and reactives Yes (TQ = 5000 lbs) n/a; TWA 5 ppm / 7 mg/m<sup>3</sup>

### 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

#### 30 mL F-1

Appearance: liquid

Colour: red

Odor: penetrative

pH:

0-1

Specific gravity:

1,07 g/cm<sup>3</sup>

Solubility in water:

0-100 %

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## 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

No further data available.

### 10.4 Conditions to avoid

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### 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 F-1

Chemical:	<i>zirconium(IV) dichloride oxide</i>	CAS No.: 13520-92-8
TSCA Inventory:	not listed	
Exposure Routes:	inhalation, skin and/or eye contact	
Target Organs:	Skin, respiratory system	
Symptoms:	Skin, lung granulomas; in animals: irritation skin, mucous membrane; X-ray evidence of retention in lungs	
Korea Exist.Chem.Inventory:	not listed	
LD50 <sub>orl rat</sub> :	2950 mg/kg	
TRGS 907 (DE):	Sah	

Chemical:	<i>1,8-dihydroxy-2-(4-sulfophenylazo)naphthalin-3,6-disulfonic acid, trihydrate</i>	CAS No.: 23647-14-5
TSCA Inventory:	listed	

Chemical:	<i>hydrochloric acid</i>	CAS No.: 7647-01-0
TSCA Inventory:	listed	California Proposition 65 List: not listed
Exposure Routes:	inhalation, ingestion (solution), skin and/or eye contact	
Target Organs:	Eyes, skin, respiratory system	
Symptoms:	irritation nose, throat, larynx; cough, choking; dermatitis; solution: eye, skin burns; liquid: frostbite; in animals: laryngeal spasm; pulmonary ede	
Australia NICNAS:	not listed	Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR:	not listed, Japan PDSCL: Deleterious Substance	
Japan ISHL:	listed ≥0,2%/≥0,1%, Article 57-2 (SDS required)	
South Korea TCCA:	Accident Precaution Chemical Yes	
Korea Exist.Chem.Inventory:	KE-20189, >10% Toxic 97-1-203, Acc. Precaution Chem.	
LD50 <sub>orl rat</sub> :	900 mg/kg	
LC50 <sub>drm rbt</sub> :	>5010 mg/kg	
Acute Effects:	Cause after inhalation of vapours/dust, impairments of health when ingested in small quantities.	

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## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 30 mL F-1

Chemical: *zirconium(IV) dichloride oxide* CAS No.: 13520-92-8  
 Water hazard class (DE): 2  
 Storage class (VCI): 8 B

Chemical: *1,8-dihydroxy-2-(4-sulfophenylazo)naphthalin-3,6-disulfonic acid, trihydrate* CAS No.: 23647-14-5  
 Water hazard class (DE): 2

Chemical: *hydrochloric acid* CAS No.: 7647-01-0  
 PNEC(fresh water) : 36 µg/L  
 PNEC = Predicted No Effect Concentration  
 LC50<sub>fish/96h</sub> : 24.6 mg/L  
 EC50<sub>daphnia/48h</sub> : 0.492 mg/L  
 EC50<sub>pseudokirchneriella subcapitata/72h</sub> : 0.78 mg/L  
 Water hazard class (DE): 1 WGK No.: 0238  
 Storage class (VCI): 8 B

### 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.

## 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

### 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.



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## 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.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

#### 16.1.2 List of relevant P phrases

P261sh	Avoid breathing dust/vapours.
P280sh	Wear protective gloves/eye protection.
P390	Absorb spillage to prevent material damage.
P403+233	Store in a well-ventilated place. Keep container tightly closed.

### 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, 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