

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 1/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

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

### 1.1 Product identifier

REF 915010  
Product name VISOCOLOR HE Calcium CA 20

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 10 mL Ind. CA 20 UFI: 2H9U-H3VP-8202-0S0U  
1 x 25 mL Soda lye 10 % UFI: 6TVT-M3QW-W20U-37S9  
1 x 100 mL TL CA 20

### 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  
Phone: +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, <<https://www.ggiz-erfurt.de>>

You find our current versions of SDS in Internet:

<<https://www.mn-net.com/SDS>>

## SECTION 2: Hazard identification

### 2.0 Classification of the complete product according to Regulation (EC) 1272/2008



GHS02 GHS05 GHS07

Signal word DANGER

#### Hazard identification Hazard classes/categories

H226 Flam. Liq. 3  
H314 Skin Corr. 1 B

### 2.1 Classification of the substance or mixture according to Regulation (EC) 1272/2008

10 mL Ind. CA 20



GHS02 GHS07

Signal word WARNING

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 2/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

| Hazard identification | Hazard classes/categories |
|-----------------------|---------------------------|
| H226                  | Flam. Liq. 3              |
| H315                  | Skin Irrit. 2             |
| H319                  | Eye Irrit. 2              |

25 mL Soda lye 10 %



GHS05

Signal word

DANGER

| Hazard identification | Hazard classes/categories |
|-----------------------|---------------------------|
| H314                  | Skin Corr. 1 B            |

100 mL TL CA 20

Do not need labelling as hazardous

Signal word

-

No hazard class

List of H phrases: see section 16.2

## 2.2 Label elements according regulation (EC) 1272/2008

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** and highly flammable chemicals/mixtures must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).

10 mL Ind. CA 20



GHS02



GHS07

Signal word: WARNING

25 mL Soda lye 10 %



GHS05

Signal word: DANGER

H314

Causes severe skin burns and eye damage.

P260sh, P264, P280sh, P303+361+353, P305+351+338, P310, P405, P501

Do not breathe dust/vapours. Wash hands thoroughly after handling. 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. Store locked up. Dispose of contents/container to regulated waste treatment.

100 mL TL CA 20

Do not need labelling as hazardous

Signal word: -

## Label elements of the complete product



GHS02



GHS05



MACHEREY-NAGEL GmbH & Co. KG  
Valencienner Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 3/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

Signal word: DANGER

H314

Causes severe skin burns and eye damage.

P260sh, P264, P280sh, P303+361+353, P305+351+338, P310, P405, P501

Do not breathe dust/vapours. Wash hands thoroughly after handling. 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. Store locked up. Dispose of contents/container to regulated waste treatment.

## 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. Flammable properties.

### 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.

### Information pertaining to particular risks to the environment

Should not be released into the environment.

PBT: not applicable

vPvB: not applicable

### Possible endocrine disrupting effects

no data available

## SECTION 3: Composition / information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 10 mL Ind. CA 20

Substance name: *triethanolamine*

CAS No.: 102-71-6

Substance rating: H315, Skin Irrit. 2, H319, Eye Irrit. 2

Formula:  $C_6H_{15}NO_3$

Pseudonym (de): 2,2',2''-Nitrilotriethanol, TEA, Tris(2-hydroxyethyl)amin

REACH Reg. No.: 01-2119486482-31-xxxx

**Dual-use:** The application of this chemical is exempt from the regulation 2017/2268/EU (see IC350 remark 4).

EC No.: 203-049-8

Concentration: 10 - <20 %

acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2

Substance name: *calconcarboxylic acid*

CAS No.: 3737-95-9

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

Formula:  $C_{21}H_{14}N_2O_7S^*2H_2O$

Pseudonym (de): 2-Hydroxy-1-(2-hydroxy-4-sulfonaphthyl-1-azo)naphthalin-3-carbonsäure

EC No.: 223-117-0

Concentration: 0,1 - <1 %

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

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 4/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

Substance name: *ethanol*  
CAS No.: 64-17-5  
(denatured with 1% 2-butanone / 1% 2-propanol)  
Substance rating: H225, Flam. Liq. 2  
Formula:  $C_2H_6O$ ;  $C_2H_5OH$   
Pseudonym (de): Äthylalkohol, vergällter Spiritus  
REACH Reg. No.: 01-2119457610-43-xxxx  
EC No.: 200-578-6  
Concentration: 35 - <55 %  
acc. CLP (GHS): H226, Flam. Liq. 3  
Indice No.: 603-002-00-5

## 25 mL Soda lye 10 %

Substance name: *sodium hydroxide solution*  
CAS No.: 1310-73-2  
Substance rating: H314, Skin Corr. 1 B  
Formula:  $NaOH \cdot H_2O$   
Pseudonym (de): Natronlauge  
REACH Reg. No.: 01-2119457892-27-xxxx  
EC No.: 215-185-5  
Concentration: 10 - <20 %  
acc. CLP (GHS): H314, Skin Corr. 1 B  
Indice No.: 011-002-00-6

## 100 mL TL CA 20

Substance name: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)*  
CAS No.: 6381-92-6  
Substance rating: H332, Acute Tox. 4 inh., H373, resp. irrit. STOT SE 3  
Formula:  $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$   
Pseudonym (de): Titriplex® III  
EC No.: 205-358-3  
Concentration: 0,1 - <1 %  
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%.

List of H and P phrases: see section 16.2.

## 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.

#### 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.



MACHEREY-NAGEL GmbH & Co. KG  
Valencienner Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 5/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

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

Rapid penetration and destruction of the skin. Especially in the heated form.  
Causes severe skin burns and eye damage.

## 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 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. ---

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### 5.1.1 Suitable 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.

#### 5.1.2 Unsuitable extinguishing media

no data available

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

**WARNING:** Flammable (GHS regulation). May form explosive vapour-air mixtures. 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

Should not be released into the environment.

**PBT:** not applicable

**vPvB:** not applicable

### 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 5.4,7,8 and 13

## 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

Safe storage is guaranteed in the original packaging from MACHEREY-NAGEL. Storage class (German chemical industry): see chapter 12.1

**Storage class (VCI):** 3

**Water hazard class (DE):** 2



MACHEREY-NAGEL GmbH & Co. KG  
Valenciennr Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

**DE** Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
**CH** Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
**FR** Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
**US** Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 6/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

## 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

#### 10 mL Ind. CA 20

Chemical: *triethanolamine*

CAS No.: 102-71-6

DNEL: [derm] 6.3; [inh] 5 mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): 0.32 mg/L

PNEC = Predicted No Effect Concentration

TRGS 900 (DE): - DFG: 5 E mg/m<sup>3</sup>

E/e respirable

Short-term exposure factor: 1, (2)

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: [MAK] 5 e/[STEL] 10 e 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: *ethanol*

CAS No.: 64-17-5

DNEL: [derm] 343 mg/kg; [inh] 950 mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): 0.96 mg/L

PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 mL/m<sup>3</sup> / 380 mg/m<sup>3</sup>

E/e respirable

Short-term exposure factor: 4 (II), Y

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 500 ppm / 960 mg/m<sup>3</sup>

NIOSH: [TWA] 1000 ppm / 1900 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] 1000 ppm / 1900 mg/m<sup>3</sup>

Chemical: *calconcarboxylic acid*

CAS No.: 3737-95-9

#### 25 mL Soda lye 10 %

Chemical: *sodium hydroxide solution*

CAS No.: 1310-73-2

DNEL: [inh] 1 mg/m<sup>3</sup>

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): 2 mg/m<sup>3</sup>

E/e respirable

Short-term exposure factor: (=1=, Y)

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 2 e mg/m<sup>3</sup>

NIOSH: 2 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] 2 mg/m<sup>3</sup>

#### 100 mL TL CA 20

Chemical: *ethylendinitrilo 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.

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 7/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

- 8.2.1 Respiratory protection**  
No additional recommendations.
- 8.2.2 Skin protection / 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 / Face Protection**  
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.
- 8.2.6 Thermal hazards**  
no data available
- 8.3 Limitation and monitoring of environmental exposure**  
Do not release product into environment.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 10 mL Ind. CA 20

- |                                               |                   |
|-----------------------------------------------|-------------------|
| a) State of aggregation:                      | liquid            |
| b) Colour:                                    | colored           |
| c) Odor:                                      | alcoholic         |
| d) Melting point:                             | no data available |
| e) Boiling point:                             | no data available |
| f) Flammability:                              | no data available |
| g) Explosive limits (lower / upper):          | no data available |
| h) Flash point:                               | 24 °C             |
| i) Flashing temperature:                      | no data available |
| j) Decomposition temperature:                 | no data available |
| k) pH value:                                  | no data available |
| l) Kinematic viscosity:                       | no data available |
| m) Solubility in water:                       | no data available |
| n) Dispersion coefficient (K <sub>ow</sub> ): | no data available |
| o) Vapour pressure (20°C):                    | no data available |
| p) Specific gravity:                          | no data available |
| q) Relative vapour density (air=1):           | no data available |
| r) Particle size:                             | no data available |

#### 25 mL Soda lye 10 %

- |                                               |                   |
|-----------------------------------------------|-------------------|
| a) State of aggregation:                      | liquid            |
| b) Colour:                                    | colourless        |
| c) Odor:                                      | odorless          |
| d) Melting point:                             | no data available |
| e) Boiling point:                             | no data available |
| f) Flammability:                              | no data available |
| g) Explosive limits (lower / upper):          | no data available |
| h) Flash point:                               | no data available |
| i) Flashing temperature:                      | no data available |
| j) Decomposition temperature:                 | no data available |
| k) pH value:                                  | 14                |
| l) Kinematic viscosity:                       | no data available |
| m) Solubility in water:                       | 0-100 %           |
| n) Dispersion coefficient (K <sub>ow</sub> ): | no data available |
| o) Vapour pressure (20°C):                    | no data available |
| p) Specific gravity:                          | 1,11 g/cm³        |
| q) Relative vapour density (air=1):           | no data available |
| r) Particle size:                             | no data available |

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 8/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

## 100 mL TL CA 20

|                                          |                       |
|------------------------------------------|-----------------------|
| a) State of aggregation:                 | liquid                |
| b) Colour:                               | colourless            |
| c) Odor:                                 | odorless              |
| d) Melting point:                        | no data available     |
| e) Boiling point:                        | no data available     |
| f) Flammability:                         | no data available     |
| g) Explosive limits (lower / upper):     | no data available     |
| h) Flash point:                          | no data available     |
| i) Flashing temperature:                 | no data available     |
| j) Decomposition temperature:            | no data available     |
| k) pH value:                             | 9-10                  |
| l) Kinematic viscosity:                  | no data available     |
| m) Solubility in water:                  | 0-100 %               |
| n) Dispersion coefficient ( $K_{o/w}$ ): | no data available     |
| o) Vapour pressure (20°C):               | no data available     |
| p) Specific gravity:                     | 1,0 g/cm <sup>3</sup> |
| q) Relative vapour density (air=1):      | no data available     |
| r) Particle size:                        | no data available     |

## 9.2 Other information

### 9.2.1 Information on physical hazard classes

no data available

### 9.2.2 Other safety-related parameters

No data is available for the other parameters for the mixtures, since no registration and no chemical safety report is required.

□□

Substances are highly corrosive.

## 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

No more required.

### 10.5 Incompatible materials

no additional data available

### 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 the hazard classes according regulation (EC) 1272/2008

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 10 mL Ind. CA 20

|                             |                                                 |                                            |
|-----------------------------|-------------------------------------------------|--------------------------------------------|
| Chemical:                   | triethanolamine                                 | CAS No.: 102-71-6                          |
| TSCA Inventory:             | listed                                          | California Proposition 65 List: not listed |
| Australia NICNAS:           | not listed                                      | Canada CEPA 1999: DSL Yes                  |
| Japan CSCL/PRTR:            | PAC Yes, Japan PDSCL: not listed                |                                            |
| Japan ISHL:                 | listed ≥0,1%/≥0,1%, Article 57-2 (SDS required) |                                            |
| South Korea TCCA:           | not listed                                      |                                            |
| Korea Exist.Chem.Inventory: | KE-25940                                        |                                            |
| LD50 orl rat :              | > 5000 mg/kg                                    |                                            |



MACHEREY-NAGEL GmbH & Co. KG  
Valencienn Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 9/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

Chemical: *ethanol* CAS No.: 64-17-5  
TSCA Inventory: listed California Proposition 65 List: not listed  
ACGIH: 1000 ppm  
Exposure Routes: inhalation, ingestion, skin and/or eye contact  
Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system  
Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough;  
liver damage; anemia; reproductive, teratogenic  
Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
Japan ISHL: listed  $\geq 0,1\%$ / $\geq 0,1\%$ , Article 57-2 (SDS required)  
South Korea TCCA: not listed  
Korea Exist.Chem.Inventory: KE-13217  
LD50 orl rat : 6200 mg/kg  
LC<sub>Low</sub> ihl gpg : 21,900 mg/L  
LC<sub>Low</sub> orl hmn : 1400 mg/kg  
LC50 ihl mus : 123,4 mg/L/4H  
LC50 ihl rat : 115,9-133,8 mg/L/4H  
LD50 orl mus : 3450 mg/kg  
TRGS 905 (DE): K5, M5, R<sub>F</sub> C  
Chemical: *calconcarboxylic acid* CAS No.: 3737-95-9  
TSCA Inventory: listed

## 25 mL Soda lye 10 %

Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2  
TSCA Inventory: listed California Proposition 65 List: not listed  
Exposure Routes: inhalation, ingestion, skin and/or eye contact  
Target Organs: Eyes, skin, respiratory system  
Symptoms: irritation eyes, skin, mucous membrane; pneumonitis; eye, skin burns; temporary loss of hair  
Australia NICNAS: not listed Canada CEPA 1999: DSL Yes  
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
Japan ISHL: listed  $\geq 1,0\%$ / $\geq 1,0\%$ , Article 57-2 (SDS required)  
South Korea TCCA: not listed  
Korea Exist.Chem.Inventory: KE-31487  
LD50 orl rat : [40%] 1250 / [<25%] >2000 mg/kg  
LD50 orl mus : 40 mg/kg

## 100 mL TL CA 20

Chemical: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)* CAS No.: 6381-92-6  
TSCA Inventory: listed (CAS 139-33-3)  
LD50 orl rat : 2800 mg/kg

## 11.2 Other hazards

**Possible endocrine disrupting effects**  
no data available

**Other information**  
no additional data available

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 10 mL Ind. CA 20

Substance name: *triethanolamine* CAS-Nr.: 102-71-6  
PNEC (fresh water) : 0.32 mg/L  
PNEC = Predicted No Effect Concentration = concentration at which no effect on the environment is expected  
LC50 fish/96h : >1000 mg/L  
EC50 daphnia/48h : >1000 24h mg/L



MACHEREY-NAGEL GmbH & Co. KG  
Valencienner Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 info@mn-net.com  
CH Tel.: +41 62 388 55 00 sales-ch@mn-net.com  
FR Tel.: +33 388 68 22 68 sales-fr@mn-net.com  
US Tel.: +1 888 321 62 24 sales-us@mn-net.com

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 10/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

Water hazard class (DE): 1 WGK No.: 0201  
Storage class (VCI): 12

Substance name: *ethanol* CAS-Nr.: 64-17-5

PNEC (fresh water): 0.96 mg/L  
PNEC = Predicted No Effect Concentration = concentration at which no effect on the environment is expected

LC50 daphnia magna/48h: >100 mg/L  
LC50 pimephales promelas/96h: 13400 - 15100 mg/L  
LC50 leuciscus idus/96h: [48h] 8140 mg/L  
LC50 fish/96h: 13 g/L  
EC50 daphnia/48h: 9.3-14.2 g/L  
IC50 scenedesmus quadricauda/72h: [7d] 5000 mg/L  
EC10 pseudomonas putida/16h: [EC5] 6500 mg/L  
Water hazard class (DE): 1 WGK No.: 0096  
Storage class (VCI): 3

Substance name: *calconcarboxylic acid* CAS-Nr.: 3737-95-9

## 25 mL Soda lye 10 %

Substance name: *sodium hydroxide solution* CAS-Nr.: 1310-73-2

Do not release into the environment.

LC50 leuciscus idus/96h: 35-189 mg/L  
LC50 fish/96h: 45.4 mg/L  
EC50 daphnia/48h: >100 mg/L  
Water hazard class (DE): 1 WGK No.: 142  
Storage class (VCI): 8 B

## 100 mL TL CA 20

Substance name: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)* CAS-Nr.: 6381-92-6

PNEC (fresh water): 2.2 mg/L  
PNEC = Predicted No Effect Concentration = concentration at which no effect on the environment is expected

LC50 fish/96h: [4d] 41-1592 mg/L  
EC50 daphnia/48h: 140 mg/L  
IC50 scenedesmus quadricauda/72h: [72h] 2.77-1000 mg/L  
EC10 pseudomonas putida/16h: [EC10, 30h] 500 mg/L  
Water hazard class (DE): 2  
Storage class (VCI): 12-13

## 12.2 Persistence and degradability

## 12.3 Bioaccumulative potential

### 10 mL Ind. CA 20

Substance name: *triethanolamine* CAS-Nr.: 102-71-6

Dispersion coefficient (K<sub>ow</sub>): -2,3

Substance name: *ethanol* CAS-Nr.: 64-17-5

Dispersion coefficient (K<sub>ow</sub>): -0,31

### 100 mL TL CA 20

Substance name: *ethylendinitrilo tetraacetic acid, di Na-salt (EDTA-Na)* CAS-Nr.: 6381-92-6

Dispersion coefficient (K<sub>ow</sub>): -4,3

## 12.4 Mobility in soil

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Endocrine disrupting properties

no data available



MACHEREY-NAGEL GmbH & Co. KG  
Valencienner Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

|                           |                            |                  |
|---------------------------|----------------------------|------------------|
| REF: 915010               | VISOCOLOR HE Calcium CA 20 | Page: 11/14      |
| Printing date: 03.08.2026 | Date of issue: 26.01.2023  | Version: 2.2.2.3 |

## 12.7 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. UN number: 3316

14.2. UN proper shipping name: Chemical Kit

14.3. Class: 9

14.4. Packing group: II

Road transport ADR

Classification code: M11 Tunnel restriction code: E  
Limited Quantity: acc. ADR 3.3.1/251: see LQ in Alternative declaration for transportation

Air transport IATA DGR

Limited Quantity: PAX: 960 max. quantity PAX: 10 KG  
CAO: 960 max. quantity CAO: 10 KG

Maritime transport IMDG

EmS: F-A, S-P Staukategorie: A

Or use **Alternative declaration for transportation:**

UN No.: (see below) class 8 II, **Excepted Quantities** ( $\leq 30 \text{ mL} / \Sigma \leq 500 \text{ mL}$ ) = ADR/ IATA E2

or

14.1 UN number: 1824

14.2 UN proper shipping name: Sodium hydroxide solution

14.3 Class: 8

14.4 Packing group: II

Road transport ADR

Classification code: C5 Tunnel restriction code: E  
Limited Quantity: 1 L  
Excepted Quantity: E 2

Air transport IATA DGR

Limited Quantity: PAX: 851 max. quantity PAX: 1 L  
CAO: 855 max. quantity CAO: 30 L  
Excepted Quantity: E 2

Maritime transport IMDG

EmS: F-A, S-B Staukategorie: A

## 14.5 Environmental hazards

none, contains only small quantities of hazardous substances

## 14.6 Special precautions for user

not necessary

## 14.7 Carriage in bulk by sea in accordance with IMO instruments

Not applicable.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Dangerous Substances Protection Act (DE: Chemikaliengesetz - ChemG), Aug 2013, Stand: Okt 2020  
Ordinance on protection against dangerous substances (E: Gefahrstoffverordnung - GefStoffV), Nov 2010, Stand: Mrz 2017  
TRGS 201, Classification and labeling of activities involving hazardous substances, Feb 2017  
TRGS 220, National aspects when preparing safety data sheets, Jan 2017  
TRGS 400, Risk assessment for activities involving hazardous substances, Jul 2017  
TRGS 401, Skin contact hazard - identification, assessment, action, Jun 2008, status: Feb 2011



MACHEREY-NAGEL GmbH & Co. KG  
Valenciennr Str. 11  
52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 12/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

BekGS 408, Application of the GefStoffV and the TRGS with the entry into force of the CLP regulation, December 2009, status: Jan 2012  
 TRGS 500, Protective measures, Mai 2008  
 TRGS 510, Storage of hazardous substances in portable containers from March 2013, status: Oct 2015  
 Chapter 4, Measures when storing hazardous substances up to 50 kg (small quantity regulation)  
 Wasserhaushaltsgesetz - WHG, Section 3 Handling substances hazardous to water, Jul 2009, status: Aug 2016  
 MN leaflet/instructions for use, also at [www.mn-net.com](http://www.mn-net.com)  
 If necessary, observe other country-specific regulations.

## 15.2 Chemical safety assessment

no data available

## SECTION 16: Other information

### 16.1 Changes compared to the last version

Between versions 2.2.2.3 and 2.2.2.2 following changes were applied: - 1 substance data corrected

### 16.2 List of H and P phrases

#### 16.2.1 List of relevant H phrases

H Between versions 2.2.2.3 and 2.2.2.2 following changes were applied: - 1 substance data corrected  
 H226 Flammable liquid and vapour.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.

#### 16.2.2 List of relevant P phrases

P260sh Do not breathe dust/vapours.  
 P264 Wash hands thoroughly after handling.  
 P280sh Wear protective gloves/eye protection.  
 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.  
 P405 Store locked up.  
 P501 Dispose of contents/container to regulated waste treatment.

### 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 Sources of key data

KÜHN, BIRETT, Leaflets on hazardous materials, 2021  
 Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres  
 SUVA .CH, limit values in the air at work 2009, revised on 01/2009  
 Regulation 790/2009/EU, adaptation of Regulation 1272/2008/EU to technical and scientific progress (1st ATP)  
 Regulation 453/2010/EU, adaptation of the REACH regulation 1907/2006/EG  
 Regulation 487/2013/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (4th ATP)  
 Regulation 1221/2015/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (7th ATP)  
 Regulation 776/2017/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (10th ATP)  
 Regulation 669/2018/EU, adaptation of Regulation 1272/2008/EC to technical and scientific progressText (11th ATP)  
 Regulation 1480/2018/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (13th ATP)  
 Regulation 521/2019/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (12th ATP)  
 TRGS 900, German rules of technology on limit values in the air at work, as of 03/2019  
 Regulation 217/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (14th ATP)  
 Regulation 878/2020/EU, adaptation of Annex II of the REACH regulation 1907/2006/EG  
 Regulation 1182/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (15th ATP)  
 Regulation 643/2021/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (16th ATP)  
 Regulation 849/2021/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (17th ATP)  
 Regulation 692/2022/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (18th ATP)

#### revisions/updates

Reason for revision: 2014-02 Corrected structure of the sections according to Regulation 453/2010/EU, if necessary  
 2014-04 adjustment according Regulation 487/2013/EU



MACHEREY-NAGEL GmbH & Co. KG  
 Valencienn Str. 11  
 52355 Düren · Germany  
[www.mn-net.com](http://www.mn-net.com)

DE Tel.: +49 24 21 969-0 [info@mn-net.com](mailto:info@mn-net.com)  
 CH Tel.: +41 62 388 55 00 [sales-ch@mn-net.com](mailto:sales-ch@mn-net.com)  
 FR Tel.: +33 388 68 22 68 [sales-fr@mn-net.com](mailto:sales-fr@mn-net.com)  
 US Tel.: +1 888 321 62 24 [sales-us@mn-net.com](mailto:sales-us@mn-net.com)

## Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 13/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

2016-03 adjustment according Regulation 1221/2015/EU

2017-08 adjustment according the Ordinance on Ethanol Denaturation 2016/1867/EU

2017-11 adjustment according the ECHA registration dossier

2022-11 adjustment according Regulation 878/2020/EU

### 16.5 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.

### 16.6 Legend / Abbreviations

|                       |                                                                             |
|-----------------------|-----------------------------------------------------------------------------|
| acc:                  | according                                                                   |
| ADR:                  | Convention concerning the International Carriage of Dangerous Goods by Road |
| Act:                  | acute                                                                       |
| BAT:                  | biological workplace tolerance value                                        |
| CAO:                  | Cargo Aircraft Only                                                         |
| Carc:                 | carcinogen                                                                  |
| CAS:                  | Chemical Abstracts Service                                                  |
| CLP:                  | Classification, Labelling and Packaging regulation                          |
| CMR:                  | carcinogen, mutagen, reproduction toxic                                     |
| Corr:                 | corrosive                                                                   |
| COD:                  | chemical oxygen demand                                                      |
| CSCL:                 | Chemical Substance Control Law (Jp)                                         |
| Dam:                  | damage                                                                      |
| DNEL:                 | Derived No-Effect Level (for workers)                                       |
| derm:                 | dermal                                                                      |
| dog:                  | dog                                                                         |
| EC10:                 | Concentration causing a toxic effect in 10% of the test organisms           |
| EC:                   | European Community                                                          |
| EC-Nr:                | Substance number of the EC substance inventory                              |
| EmS:                  | Guide to accident management measures on ships                              |
| EU:                   | European Union                                                              |
| fish:                 | fish (not specified)                                                        |
| GHS:                  | Global Harmonized System of Classification and Labeling of Chemicals        |
| gpg:                  | guinea pig                                                                  |
| ICAO:                 | International Civil Aviation Organization                                   |
| ihl:                  | inhaled                                                                     |
| IMDG:                 | International Maritime Dangerous Goods Code                                 |
| intrav:               | intravenous                                                                 |
| ipt:                  | intraperitoneal                                                             |
| ISHL:                 | Industrial Safety and Health Law (Jp)                                       |
| LC50:                 | lethal concentration 50%                                                    |
| LD50:                 | lethal dose 50%                                                             |
| leuciscus idus:       | fish, ide, orfe                                                             |
| MAK:                  | maximum workplace concentration                                             |
| Met:                  | Metall                                                                      |
| mus:                  | mouse                                                                       |
| Muta:                 | mutagen                                                                     |
| NIOSH:                | National Institute for Occupational Safety and Health (US)                  |
| NRD:                  | Non-rapidly degradable                                                      |
| onchorhynchus mykiss: | fish, rainbow trout                                                         |
| orl:                  | oral                                                                        |
| OSHA:                 | Occupational Safety and Health Administration                               |
| PAX:                  | transport on passenger planes allowed                                       |
| PBT:                  | persistent, bioaccumulating, toxic substance                                |
| pH:                   | pH value                                                                    |
| pimephales promelas:  | fish, fathead minnow                                                        |
| PNEC:                 | Predicted No Effect Concentration                                           |
| PROC 15:              | Process category 'for laboratory use'                                       |
| PRTR:                 | Law for PRTR and Promotion of Chemical Management (Jp)                      |
| PVC:                  | polyvinyl chloride                                                          |
| quail:                | bird, quail                                                                 |
| rat:                  | rat                                                                         |
| rbt:                  | rabbit                                                                      |

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 915010

VISOCOLOR HE Calcium CA 20

Page: 14/14

Printing date: 03.08.2026

Date of issue: 26.01.2023

Version: 2.2.2.3

RD: rapidly degradable  
 RE: repeated  
 RECh: Registration, Evaluation, Authorisation and Restriction of Chemicals  
 REF: item number, reference number  
 Reg.No.: rRegistration number  
 Repr: harmful to reproduction  
 Resp: respiratory  
 RIP: REACH Implementations Projects  
 scu: sub cutan  
 SDS: safety data sheet  
 Sens: sensitisation  
 STEL: short term exposure limit  
 STOT: Specific Target Organ Toxicity  
 SVHC: Substance of Very High Concern  
 t/a: tons per year  
 TCCA: Toxic Chemicals Control Act (S. Korea)  
 Tox: toxic  
 TSCA: The Toxic Substances Control Act (US)  
 TWA: time weighted average  
 TRGS: technical regulations (DE)  
 vPvB: very persistent, very bioaccumulating substance

## 16.7 Training advice

Regular safety training. 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.