

# Safety Data Sheet

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

REF: 931026

VISOCOLOR ECO Iron 2

Page: 1/9

Printing date: 12.01.2023

Date of issue: 30.09.2022

Version: 2.2.2.2

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

### 1.1 Product identifier

REF 931026  
Product name VISOCOLOR ECO Iron 2

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 17 mL Fe-1  
1 x 5 g Fe-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  
Phone: +49 2421 969 0

E-mail: [sds@mn-net.com](mailto:sds@mn-net.com) ([msds@mn-net.com](mailto:msds@mn-net.com))

### 1.4 Emergency telephone number

Information not necessary.

You find our current versions of SDS in Internet:

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

## SECTION 2: Hazard identification

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

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

5 g Fe-2

Signal word Do not need labelling as hazardous  
-

No hazard class

17 mL Fe-1

Signal word Do not need labelling as hazardous  
-

No hazard class

List of H phrases: see section 16.2

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

5 g Fe-2

Do not need labelling as hazardous



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Signal word: -

## 17 mL Fe-1

Do not need labelling as hazardous

Signal word: -

## Label elements of the complete product

### 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

#### Possible endocrine disrupting effects

no data available

## SECTION 3: Composition / information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 17 mL Fe-1

Substance name: *acetate buffer solution*

CAS No.: -

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

Formula:  $\text{CH}_3\text{COOH/K/Na}\cdot\text{H}_2\text{O}$

Concentration: 45 - <60 %

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

#### 5 g Fe-2

Substance name: *sodium chloride*

CAS No.: 7647-14-5

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

Formula: NaCl

Pseudonym (de): Kochsalz

REACH Reg. No.: exempt, Annex V

EC No.: 231-598-3

Concentration: 50 - <80 %

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

Substance name: *L(+)-ascorbic acid*

CAS No.: 50-81-7

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

Formula:  $\text{C}_6\text{H}_8\text{O}_6$

Pseudonym (de): Vitamin C

REACH Reg. No.: exempt, Annex IV

EC No.: 200-066-2

Concentration: 20 - <30 %

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.

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures

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

#### 4.1.1 After SKIN Contact

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

#### 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. 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

None.

### 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. Not necessary.

### 6.2 Environmental precautions

not necessary

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

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

### 6.4 Reference to other sections

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

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

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

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

Storage class (VCI): 12

Water hazard class (DE): 1

### 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

#### 17 mL Fe-1

Chemical: acetate buffer solution

CAS No.: -

#### 5 g Fe-2

Chemical: sodium chloride

CAS No.: 7647-14-5

Chemical: L(+)-ascorbic acid

CAS No.: 50-81-7

### 8.2 Exposure controls

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

#### 8.2.1 Respiratory protection

Not necessary.

#### 8.2.2 Skin protection / Hand protection

Not necessary.

#### 8.2.3 Eye / Face Protection

Not necessary.

#### 8.2.4 Skin protection

Not necessary.

#### 8.2.5 Personal hygiene

Information not necessary.

#### 8.2.6 Thermal hazards

no data available

### 8.3 Limitation and monitoring of environmental exposure

Information not necessary.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 17 mL Fe-1

a) State of aggregation:

liquid

b) Colour:

slightly yellow

c) Odor:

acetic

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:

4-6

l) Kinematic viscosity:

no data available

m) Solubility in water:

no data available

n) Dispersion coefficient ( $\sigma_w$ ):

no data available



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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

## 5 g Fe-2

a) State of aggregation:	powder (solid)
b) Colour:	slightly yellow
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:	no data available
l) Kinematic viscosity:	no data available
m) Solubility in water:	no data available
n) Dispersion coefficient (o/w):	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

## 9.2 Other information

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

**Properties relevant to substance groups**

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None

### 10.2 Chemical stability

no known instability.

### 10.3 Possibility of hazardous reactions

None.

### 10.4 Conditions to avoid

Not known.

### 10.5 Incompatible materials

Not known.

### 10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

## SECTION 11: Toxicological information

### 11.1 Information on 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.

17 mL Fe-1

Chemical: acetate buffer solution

CAS No.: -

TSCA Inventory: all listed

Korea Exist.Chem.Inventory: listed



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## 5 g Fe-2

Chemical: *sodium chloride*  
TSCA Inventory: listed  
Korea Exist.Chem.Inventory: KE-31387  
LD50 orl rat : 3000 mg/kg

CAS No.: 7647-14-5

Chemical: *L(+)-ascorbic acid*  
TSCA Inventory: listed  
Korea Exist.Chem.Inventory: KE-01947  
LD50 orl rat : 11900 mg/kg

CAS No.: 50-81-7

## 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.

#### 17 mL Fe-1

Chemical: *acetate buffer solution*  
Storage class (VCI): 12

CAS No.: -

#### 5 g Fe-2

Chemical: *sodium chloride*  
Water hazard class (DE): 1  
Storage class (VCI): 12-13

CAS No.: 7647-14-5

Chemical: *L(+)-ascorbic acid*  
Water hazard class (DE): 1  
Storage class (VCI): 13

WGK No.: 0737

CAS No.: 50-81-7

### 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

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

### 12.7 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.



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## 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

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

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

## SECTION 16: Other information

### 16.1 Changes compared to the last version

in preparation

### 16.2 List of H and P phrases

#### 16.2.1 List of relevant H phrases

#### 16.2.2 List of relevant P phrases

### 16.3 Recommended restriction on use

None

### 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)

### 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

2016-03 adjustment according Regulation 1221/2015/EU

2017-11 adjustment according the ECHA registration dossier

2022-11 adjustment according Regulation 878/2020/EU



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## 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.

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## 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: letale concentration 50%  
LD50: letale dosis 50%  
leuciscus idus: fisch, 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: fisch, 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: fisch, 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  
RD: rapidly degradable  
RE: repeated  
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals  
REF: item number, reference number  
Reg.No.: rRegistration number



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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.