

# Safety Data Sheet

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

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

### 1.1 Product identifier

REF 920050  
 no data available VISOCOLOR HE Copper  
 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 80 mL Cu-1  
 1 x 60 mL Cu-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  
 Valencienner 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

Information not necessary.  
 You find our current versions of SDS in Internet:

Lieferant / Supplier:  
 Carl Roth GmbH + Co KG  
 Schöbenerstr. 3-5  
 76185 Karlsruhe, Germany  
 +49 721 5606 0  
 sicherheit@carlroth.de

<<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

**60 mL Cu-2**

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

**80 mL Cu-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



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## 60 mL Cu-2

Do not need labelling as hazardous  
Signal word: -

## 80 mL Cu-1

Do not need labelling as hazardous  
Signal word: -

## Label elements of the complete product

Signal word: -

## 2.3 Other hazards

### Possible hazards from physicochemical properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit. An individual package has considerably less hazardous potential.

### Information pertaining to particular risks to human and possible symptoms

### Information pertaining to particular risks to the environment

### Possible endocrine disrupting effects

no data available

## SECTION 3: Composition / information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 60 mL Cu-2

Substance name: *dimethyl sulfoxide*  
CAS No.: 67-68-5

Substance rating: No criteria for classification or naming of chemical not required.  
Formula:  $C_2H_6OS$   
Pseudonym (de): DMSO  
REACH Reg. No.: 01-2119431362-50-xxxx  
EC No.: 200-664-3  
Concentration: 80 - <100 %  
acc. CLP (GHS): The criteria for classification are not fulfilled.

#### 80 mL Cu-1

Substance name: *citrate buffer solution*  
CAS No.: -

Substance rating: No criteria for classification or naming of chemical not required.  
Concentration: 25 - <40 %  
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.

#### 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



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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

## 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): 3

#### 7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

### 7.3 Specific end use(s)

Product for analytical use.



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## SECTION 8: Exposure controls /personal protection

### 8.1 Control parameters

#### 60 mL Cu-2

Chemical: *dimethyl sulfoxide*

CAS No.: 67-68-5

DNEL: 394 inh mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC (fresh water): 17 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 50 ppm / 160 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 2 (I), H, Z  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 50 ppm / 160 mg/m<sup>3</sup>

#### 80 mL Cu-1

Chemical: *citrate buffer solution*

CAS No.: -

### 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

#### 60 mL Cu-2

- |                                      |                   |
|--------------------------------------|-------------------|
| a) State of aggregation:             | colourless        |
| b) Colour:                           | red               |
| c) Odor:                             | no data available |
| 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:                      | 95 °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 (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 |



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## 80 mL Cu-1

a) State of aggregation:	
b) Colour:	colourless
c) Odor:	red
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:	8-9
l) Kinematic viscosity:	no data available
m) Solubility in water:	0-100 %
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.

#### 60 mL Cu-2

Chemical: *dimethyl sulfoxide*  
 TSCA Inventory: listed  
 Korea Exist.Chem.Inventory: KE-32367  
 LD50 orl rat : 14500 mg/kg

CAS No.: 67-68-5

#### 80 mL Cu-1

Chemical: *citrate buffer solution*  
 TSCA Inventory: all listed  
 Korea Exist.Chem.Inventory: listed

CAS No.: -



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## 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.

#### 60 mL Cu-2

Chemical: *dimethyl sulfoxide*

CAS No.: 67-68-5

PNEC (fresh water): 17 mg/L

PNEC = Predicted No Effect Concentration

LC50 fish/96h: 38.5 g/L

EC50 daphnia/48h: 24.6 g/L

EC10 pseudomonas putida/16h: EC/16h: 7100 mg/L

Water hazard class (DE): 1 WGK No.: 5050

Dispersion coefficient (o/w): -1,35

Storage class (VCI): 12

#### 80 mL Cu-1

Chemical: *citrate buffer solution*

CAS No.: -

Water hazard class (DE): 0

Storage class (VCI): 12

### 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.

## SECTION 14: Transport information

14.1 - 14.4 Not necessary

### 14.5 Environmental hazards

none

### 14.6 Special precautions for user

not necessary



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## 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 dangerous working materials

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 the CLP Regulation 1272/2008/EU to technical and scientific progress

Regulation 453/2010/EU REACH – REQUIREMENTS FOR THE PREPARATION OF SAFETY DATA SHEET

Regulation 487/2013/EU, 4. Adaptation of the CLP regulation to technical and scientific progress

Regulation 669/2018/EU, 4. Adaptation of the CLP regulation to technical and scientific progress

Regulation 1480/2018/EU, 4. Adaptation of the CLP regulation to technical and scientific progress

TRGS 900, German engineering rules on limit values in the air at work, as of 03/2019

Regulation 878/2020/EU

Regulation 849/2021/EU, 4. Adaptation of the CLP regulation to technical and scientific progress

#### Revisions/Updates

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

2014-04 Adjustment of Regulation 487/2013/EU

2016-03 Adjustment of Regulation 1221/2015/EU

2017-11 adaptation of the ECHA registration dossier

2022-11 Adjustment of Regulation 878/2020/EU

### 16.5 Further information

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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



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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  
 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



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## 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.



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