

Safety Data Sheet

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

REF: 985089	NANOCOLOR Sulfite 10	Page: 1/8
Printing date: 01.10.2019	Date of issue: 21.06.2018	

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

1.1 Product identifier

REF 985089
 Product name NANOCOLOR Sulfite 10

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.

20 x 1 mL Sulfite 10 (R0)
 1 x 5 mL Sulfite 10 (R2)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses
 Product for analytical use.
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0
 The exposure scenario is integrated into sections 1-16.

Uses advised against
 not described

1.3 Details of the supplier of the safety data sheet

Manufactured by:
 MACHEREY-NAGEL GmbH & Co. KG
 Neumann-Neander-Str. 6-8, 52355 Dueren, GERMANY
 Tel.: +49 2421 969 0

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

1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.
 DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

You find our current versions of SDS (22 languages) in Internet: <http://www.mn-net.com/SDS>

SECTION 2: Hazard identification

2.0 Classification of the complete product



GHS07 GHS08

Signal word	WARNING
Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H373	STOT RE 2

2.1 Classification of the substance or mixture

1 mL Sulfite 10 (R0)

Signal word Do not need labelling as hazardous
 -

No hazard class

5 mL Sulfite 10 (R2)

Safety Data Sheet

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

REF: 985089	NANOCOLOR Sulfito 10	Page: 2/8
Printing date: 01.10.2019	Date of issue: 21.06.2018	



GHS07 GHS08

Signal word: WARNING

Hazard identification	Hazard classes/categories
H302 H373	Acute Tox. 4 oral STOT RE 2

2.2 Label elements

According **CLP directive** inner packages must be only labelled with GHS symbol(s) and product identifier(s) (EU 1272/2008 Annex I - 1.5.1.2). Inner packages up to 10 mL need max. 2 symbols (Annex I - 1.5.2.4.1 / 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).

1 mL Sulfito 10 (R0)

Do not need labelling as hazardous
Signal word: -

5 mL Sulfito 10 (R2)



GHS07 GHS08

Signal word: WARNING

2.3 Other hazards

Possible hazards from physicochemical properties

Information pertaining to particular risks to human and possible symptoms

Cause after oral intake, impairments of health when ingested in small quantities. ---

Information pertaining to particular risks to the environment

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

1 mL Sulfito 10 (R0)

Chemical:	<i>boric acid</i>	CAS No.:	10043-35-3
Classification:	H360FD, Repr. 1B		
Formula:	H ₃ BO ₃		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119486683-25-0024		
SVHC listed:	listed (18/06/2010)		
EC No.:	233-139-2	Indice No.:	005-007-00-2
RTECS:	ED4550000	MFCD:	00011337
KE No.:	KE-03499		
Concentration:	0,1 - <0,5 %	Correlation factor:	x 0.17 (= %B)
The classification refers to weight percent of the metal (according to CLP Regulation 2008/1272/EC Annex VI, 1.1.3.2 Note 1)			
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Safety Data Sheet

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

REF: 985089

NANOCOLOR Sulfite 10

Page: 3/8

Printing date: 01.10.2019

Date of issue: 21.06.2018

5 mL Sulfite 10 (R2)

Chemical: *ethylene glycol*

CAS No.: 107-21-1

Classification: H302, Acute Tox. 4 oral, H373, STOT RE 2

Formula: C₂H₆O₂

Pseudonym: 1,2-ethanediol

TSCA Inventory: listed

REACH Reg. No.: 01-2119456816-28-XXXX

EC No.: 203-473-3

Indice No.: 603-027-00-1

RTECS: KW2975000

MFCD: 00002885

KE No.: KE-13169

Concentration: 80 - <100 %

acc. CLP (GHS): H302, Acute Tox. 4 oral, H373, STOT RE 2

Chemical: *chemicals/mixture < 1%*

CAS No.: -

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

TSCA Inventory: all listed, <1%

KE No.: listed

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 16.1

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

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

Safety Data Sheet

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

REF: 985089	NANOCOLOR Sulfite 10	Page: 4/8
Printing date: 01.10.2019	Date of issue: 21.06.2018	

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**

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**
Handling in accordance with the test instruction, that comes with the product. Use a safety bottle when shaking test tubes.
- 7.2 Conditions for safe storage, including any incompatibilities**
The original product package of MACHEREY-NAGEL allows a safe storage.
Storage class (VCI): 6.1D
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

1 mL Sulfite 10 (R0)
 Chemical: *boric acid* CAS No.: 10043-35-3
 DNEL: [derm] 392 mg/kg bw/day; [inh] 8.3 mg/m³
DNEL = Derived No-Effect Level (for workers)
 PNEC_(fresh water): 2.9 mg/L
PNEC = Predicted No Effect Concentration
 TRGS 900 (DE): 0.5 E mg/m³
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: [Bor][MAK] 1,8e/[STEL] 1,8e mg/m³
 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

5 mL Sulfite 10 (R2)
 Chemical: *ethylene glycol* CAS No.: 107-21-1
 DNEL: [inh] 35 mg/m³
DNEL = Derived No-Effect Level (for workers)
 TRGS 900 (DE): 10 ppm / 26 mg/m³
E/e respirable
 SUVA(CH) MAK value: 10 ppm / 26 mg/m³
 NIOSH: [Ceiling] 50 ppm
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period
 OSHA: none

Chemical: *chemicals/mixture < 1%* CAS No.: -

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 1907/2006/EC (REACH) and 2015/830/EU

REF: 985089

NANOCOLOR Sulfite 10

Page: 5/8

Printing date: 01.10.2019

Date of issue: 21.06.2018

- 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

1 mL Sulfite 10 (R0)

Appearance: liquid	Colour: colourless	Odor: odorless
pH:	8,5	
Solubility in water:	0-100 %	

5 mL Sulfite 10 (R2)

Appearance: liquid	Colour: colourless	Odor: organic
pH:	6-8	
Boiling point:	117 (39 hPa) °C	
Flash point:	116 °C	
Explosion limits:	1,8 ... 12,8 Vol%	
Specific gravity:	1,11 g/cm ³	
Solubility in water:	0-100 %	
Flashing temperature:	410 °C	

9.2 Other information

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

no further data available.

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

No further data available.

10.4 Conditions to avoid

Observe labeled storage temperature. ---

10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

10.6 Hazardous decomposition products

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

Safety Data Sheet

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

REF: 985089

NANOCOLOR Sulfite 10

Page: 6/8

Printing date: 01.10.2019

Date of issue: 21.06.2018

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

1 mL Sulfite 10 (R0)

Chemical:	<i>boric acid</i>	CAS No.:	10043-35-3
TSCA Inventory:	listed	California Proposition 65 List:	not listed
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	PRTR: ≥1,0%B class I, Japan PDSCL:		not listed
Japan ISHL:	not listed		
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-03499		
LD50 _{orl rat} :	>3765 mg/kg		
LC50 _{ihl rat} :	> 2 mg/m ³		
LD50 _{drm rat} :	>2000 mg/kg		
EU carcinogen:	R _D 1B, R _F 1B		
TRGS 905 (DE):	R _E 2, R _F 2		

5 mL Sulfite 10 (R2)

Chemical:	<i>ethylene glycol</i>	CAS No.:	107-21-1
TSCA Inventory:	listed	California Proposition 65 List:	listed, developmental
Korea Exist.Chem.Inventory:	KE-13169		
LD50 _{orl rat} :	4700 mg/kg		
LC _{LoWorl hmn} :	786 mg/kg		
LD50 _{drm rbt} :	2000 mg/kg		
Acute Effects:	Cause after oral intake, impairments of health when ingested in small quantities.		
Chronic Effects:	May cause damage to organs through prolonged or repeated exposure.		
Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
TSCA Inventory:	all listed, <1%		
Korea Exist.Chem.Inventory:	listed		

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

1 mL Sulfite 10 (R0)

Chemical:	<i>boric acid</i>	CAS No.:	10043-35-3
PNEC (fresh water):	2.9 mg/L		
PNEC = Predicted No Effect Concentration			
LC50 _{fish/96h} :	[4d] 79.7 mg/L		
EC50 _{daphnia/48h} :	91-165 mg/L		
LC50 _{scenedesmus quadricauda/72h} :	[72h] 52.4 mg/L		
EC10 _{pseudomonas putida/16h} :	[EC10] 10 mg/L		
Water hazard class (DE):	1	WGK No.:	0315
Dispersion coefficient _(octanol-water) :	-1.09		
Storage class (VCI):	6.1 D		

5 mL Sulfite 10 (R2)

Chemical:	<i>ethylene glycol</i>	CAS No.:	107-21-1
LC50 _{pimephales promelas/96h} :	[NOEC, 7d] 39.14 g/L		
LC50 _{leuciscus idus/96h} :	[NOEC, 48h] >10 g/L		
LC50 _{fish/96h} :	18.5 g/L		
EC50 _{daphnia/48h} :	41 / [24h] 74 mg/L		
Water hazard class (DE):	1	WGK No.:	0105
Dispersion coefficient _(octanol-water) :	-1.36		
Storage class (VCI):	12-13		
Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
Water hazard class (DE):	1		
Storage class (VCI):	12-13		

Safety Data Sheet

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

REF: 985089

NANOCOLOR Sulfite 10

Page: 7/8

Printing date: 01.10.2019

Date of issue: 21.06.2018

- 12.2 Persistence and degradability**
not necessary
- 12.3 Bioaccumulative potential**
not necessary
- 12.4 Mobility in soil**
not necessary
- 12.5 Results of PBT and vPvB assessment**
no data available
- 12.6 Other adverse effects**
no additional data available

SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

- 13.1 Waste treatment methods**

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
Look for your country-specific regulations.
- 15.2 Chemical safety assessment**
not necessary for these small amounts ---

SECTION 16: Other information

- 16.1 List of H and P phrases**
- 16.1.1 List of relevant H phrases**
H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.
- 16.1.2 List of relevant P phrases**
P260sh Do not breathe dust/vapours.
P264W Wash with water thoroughly after handling.
P280sh Wear protective gloves/eye protection.
P301+312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
- 16.2 Training advice**
Regular safety training.

Safety Data Sheet

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

REF: 985089

NANOCOLOR Sulfite 10

Page: 8/8

Printing date: 01.10.2019

Date of issue: 21.06.2018

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.

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

16.5 Sources of key data

Regulation 790/2009/EU adaptation of CLP regulation 1272/2008/EU to technical and scientific progress

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated 03/2018

SUVA .CH, Limits in air at work 2009, revised on 01.2009

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

Revisions/Updates

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