

Safety Data Sheet

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

REF: 985047

NANOCOLOR Nonionic surfactants 15

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Printing date: 01.10.2019

Date of issue: 06.06.2018

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

1.1 Product identifier

REF 985047
Product name NANOCOLOR Nonionic surfactants 15

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 6 mL Nonionic Surfactants 15 (R0)

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

2.1 Classification of the substance or mixture

6 mL Nonionic Surfactants 15 (R0)



GHS02



GHS07



GHS08

Signal word

WARNING

Hazard identification

Hazard classes/categories

H226	Flam. Liq. 3
H302	Acute Tox. 4 oral
H312	Acute Tox. 4 derm.
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H332	Acute Tox. 4 inh.
H336	STOT SE 3
H351	Carc. 2
H371	STOT SE 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** 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).

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6 mL Nonionic Surfactants 15 (R0)



GHS02 GHS07 GHS08

Signal word: WARNING

H351
Suspected of causing cancer.

P280sh
Wear protective gloves/eye protection.

2.3 Other hazards

Possible hazards from physicochemical properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. ---

Information pertaining to particular risks to human and possible symptoms

Cause after oral intake, inhalation of vapours/dust, impairments of health when ingested in small quantities. Suspected of causing cancer. -

Information pertaining to particular risks to the environment

PBT: not applicable
vPvB: not applicable

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

6 mL Nonionic Surfactants 15 (R0)

Chemical:	<i>methanol</i>	CAS No.:	67-56-1
Classification:	H225, Flam. Liq. 2, H301, Acute Tox. 3 oral, H311, Acute Tox. 3 derm., H331, Acute Tox. 3 inh., H370, STOT SE 1		
Formula:	CH ₄ O, CH ₃ OH		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119433307-44-xxxx		
EC No.:	200-659-6	Indice No.:	603-001-00-X
RTECS:	PC1400000	MFCD:	00004595
KE No.:	KE-23193, Toxic 97-1-80		
Concentration:	3 - <10 %		
acc. CLP (GHS):	H226, Flam. Liq. 3, H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H332, Acute Tox. 4 inh., H371, STOT SE 2		

Chemical:	<i>dichloromethane</i>	CAS No.:	75-09-2
Classification:	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H336, STOT SE 3, H351, Carc. 2		
Formula:	CH ₂ Cl ₂		
Pseudonym:	methylene chloride, DCM		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119480404-41-xxxx		
EC No.:	200-838-9	Indice No.:	602-004-00-3
RTECS:	PA8050000	MFCD:	00000881
KE No.:	KE-23893		
Concentration:	90 - <100 %		
acc. CLP (GHS):	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H336, STOT SE 3, H351, Carc. 2		

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Chemical:	<i>water</i>	CAS No.:	7732-18-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	H ₂ O		
TSCA Inventory:	listed		
REACH Reg. No.:	exempt, Annex IV		
EC No.:	231-791-2		
RTECS:	ZC0110000		
KE No.:	KE-35400		
Concentration:	70 - <90 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		
Chemical:	<i>indicator dye(s)</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed, <1%		
Concentration:	0,01 - <0,1 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		
Chemical:	<i>phosphate buffer solution</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	K/Na ₁₋₃ H ₂₋₀ PO ₄ • x H ₂ O		
TSCA Inventory:	all listed		
KE No.:	listed		
Concentration:	5 - <20 %		
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

Carcinogenic Effects: Suspected of causing cancer. ---

4.3 Indication of any immediate medical attention and special treatment needed

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

WARNING: Flammable (GHS regulation). May form explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible. ---

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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. Wear suitable protective gloves (see 8.2.2). 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

not necessary

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. Not for organic solvents (see section 13).

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): 3
Water hazard class (DE): 2

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

6 mL Nonionic Surfactants 15 (R0)

Chemical: *methanol*

CAS No.: 67-56-1

DNEL: [derm] 40 mg/kg bw/day; [inh] 260 mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 20.8 mg/L

PNEC = Predicted No Effect Concentration

EU value: [TWA] 200 ppm / 260 mg/m³

TRGS 900 (DE): 200 ppm / 270 mg/m³
E/e respirable

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

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

SUVA(CH) MAK value: 200 ppm/ 260 mg/m³

SUVA(CH) BAT value: [U/c,b] 30 mg/L

TRGS 903 (DE): U/c,b 30 mg/L

B blood, U urine, a no limitation, b end of exposition or shift

NIOSH: [TWA, skin] 200 ppm / 260 mg/m³

NIOSH STEL: 250 ppm / 325 mg/m³

[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [TWA] 200 ppm / 260 mg/m³

Chemical: *dichloromethane*

CAS No.: 75-09-2

EU value: [TWA] 353 / [STEL] 706 mg/m³

TRGS 900 (DE): 50 mL/m³ / 180 mg/m³
E/e respirable

Short-term exposure factor: 2 (II)

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

SUVA(CH) MAK value: [MAK] 177/[STEL] 353 mg/m³

SUVA(CH) BAT value: CO-Hb: 5%; B, b 1 mg/L

TRGS 903 (DE): [B/g] 500 µg/L

B blood, U urine, a no limitation, b end of exposition or shift

NIOSH: Occupational Carcinogen List Yes, NTP Report on Carcinogens (RoC) List Yes (Reasonably anticipated to be a human carcinogen)

[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [1910.1052] TWA 25 ppm ST 125 ppm

Chemical: *water*

CAS No.: 7732-18-5

Chemical: *indicator dye(s)*

CAS No.: -

Chemical: *phosphate buffer solution*

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.

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, for chlorinated carbons consist of viton (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

Recommended.

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

6 mL Nonionic Surfactants 15 (R0)

Appearance: liquid (2 phases)

Colour: colored

Odor: like chloroform

pH:

8

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

Not necessary. Observe labeled storage temperature. ---

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10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

6 mL Nonionic Surfactants 15 (R0)

Chemical: *methanol* CAS No.: 67-56-1
 TSCA Inventory: listed California Proposition 65 List: listed, developmental
 ACGIH: 200 ppm / 160 mg/m³
 Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system, central nervous system, gastrointestinal tract
 Symptoms: irritation eyes, skin, upper respiratory system; headache, drowsiness, dizziness, nausea, vomiting; visual disturbance, optic nerve damage (blindness)
 Australia NICNAS: Canada CEPA 1999: DSL yes
 Japan CSCL/PRTR: PAC yes, Japan PDSCL: Deleterious Substance
 Japan ISHL: listed ≥0,3%/≥0,1%, Article 57-2 (SDS required)
 South Korea TCCA: Accident Precaution Chemical yes
 Korea Exist.Chem.Inventory: KE-23193, Toxic 97-1-80
 LD50_{orl rat}: 5628 mg/kg
 LC_{LoWihl rat}: [4h] 64000 mg/m³
 LC_{Loworl hmn}: 143 mg/kg
 LC50_{ihl rat}: [4h] >80 mg/L
 LD50_{drmm rbt}: 15800 mg/kg
 LD50_{orl mus}: 7300 mg/kg
 Acute Effects: Cause after oral intake, inhalation of vapours/dust, skin contact, impairments of health when ingested in small quantities.
 Chronic Effects:
 TRGS 905 (DE): R_F C

Chemical: *dichloromethane* CAS No.: 75-09-2
 TSCA Inventory: listed California Proposition 65 List: listed, cancer
 Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, cardiovascular system, central nervous system ; Cancer Site[in animals: lung, liver, salivary & mammary gland tumors]
 Symptoms: irritation eyes, skin; lassitude (weakness, exhaustion), drowsiness, dizziness; numb, tingle limbs; nausea; [potential occupational carcinogen]
 Australia NICNAS: not listed Canada CEPA 1999: DSL Yes, Toxic Substances (Schedule 1) Yes (Item 37.)
 Japan CSCL/PRTR: PAC Yes, PRTR: ≥1,0% class I, Japan PDSCL: not listed
 Japan ISHL: listed ≥1,0%/≥0,1%, Article 57-1+2 (Labelling&SDS required)
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: KE-23893
 LD50_{orl rat}: 1600 mg/kg
 LC_{Loworl hmn}: 357 mg/kg
 LC50_{ihl rat}: 524h mg/m³
 LD50_{drmm rat}: >2000 mg/kg
 Carcinogenic Effects: Suspected of causing cancer.
 TRGS 905 (DE): K3A (4/5)

Chemical: *water* CAS No.: 7732-18-5
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-35400

Chemical: *indicator dye(s)* CAS No.: -
 TSCA Inventory: all listed, <1%

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

CAS No.: -

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

6 mL Nonionic Surfactants 15 (R0)

Chemical: *methanol*
 PNEC(fresh water) : 20.8 mg/L
 PNEC = Predicted No Effected Concentration
 LC50_{daphnia magna/48h} : [24h] 23.5 g/L
 LC50_{pimephales promelas/96h} : 29.4 g/L
 LC50_{fish/96h} : 15.4 g/L
 EC50_{daphnia/48h} : >10 g/L
 IC50_{scenedesmus quadricauda/72h} : [IC5 8d] 8000 mg/L
 EC10_{pseudomonas putita/16h} : [EC5] 6.6 g/L
 Water hazard class (DE): 1 WGK No.: 0145
 Dispersion coefficient_(octanol-water) : -0.77
 Storage class (VCI): 3

CAS No.: 67-56-1

Chemical: *dichloromethane*
 LC50_{pimephales promelas/96h} : 193 mg/L
 EC50_{daphnia/48h} : 1682 mg/L
 EC50_{pseudokirchneriella subcapitata/72h} : IC50_{96h} : > 660 mg/L
 Water hazard class (DE): 2 WGK No.: 0149
 Dispersion coefficient_(octanol-water) : 1.25
 Storage class (VCI): 12

CAS No.: 75-09-2

Chemical: *water*

CAS No.: 7732-18-5

Chemical: *indicator dye(s)*
 Storage class (VCI): 12-13

CAS No.: -

Chemical: *phosphate buffer solution*
 Water hazard class (DE): 1
 Storage class (VCI): 12

CAS No.: -

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). Or collect in solvent waste (waste code number 07 07 04).

13.1 Waste treatment methods

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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

Classification code: M11 Tunnel restriction code: E

Limited Quantity: acc. ADR 3.3.1/251: see LQ in Alternative declaration for transportation

Air transport

PAX: 960 max. weight PAX: 10 KG

CAO: 960 max. weight CAO: 10 KG

Maritime transport

EmS: F-A, S-P Storage category: A

Or use **Alternative declaration for transportation:**

UN No.: (see below) class 6.1 III, **Excepted Quantities** ($\leq 30 \text{ mL}/\Sigma \leq 1 \text{ L}$) = ADR/ IATA E1

or

14.1 UN number: 2810 14.2 UN proper shipping name: Toxic liquid, organic, n.o.s. (dichloromethane solution)

14.3 Class: 6.1 14.4 Packing group: III

Road transport

Classification code: T1

Limited Quantity: 5 L Tunnel restriction code: E

Excepted Quantity: E 1

Air transport

PAX: 655 max. weight PAX: 60 L

CAO: 663 max. weight CAO: 220 L

Maritime transport

EmS: F-A, S-A Storage category: A

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

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H371	May cause damage to organs.

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16.1.2 List of relevant P phrases

- P201 Obtain special instructions before use.
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P260D Do not breathe vapours.
- P260sh Do not breathe dust/vapours.
- P261sh Avoid breathing 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.
- P302+352 IF ON SKIN: Wash with plenty of water.
- P330 Rinse mouth.

16.2 Training advice

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.

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 Further information

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.
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16.5 Sources of key data

- Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS
- Regulation 487/2013/EU, 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

