

Safety Data Sheet

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

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Printing date: 01.10.2019	Date of issue: 01.04.2019	

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

1.1 Product identifier

REF 985040
 Product name NANOCOLOR Fluoride 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.

20 x 5 mL Fluoride 2 (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

5 mL Fluoride 2 (R0)



GHS02 GHS07

Signal word DANGER

Hazard identification	Hazard classes/categories
EUH066	Skin Irrit. 2
H225	Flam. Liq. 2
H319	Eye Irrit. 2
H336	STOT SE 3

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).

5 mL Fluoride 2 (R0)

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GHS02



GHS07

Signal word: DANGER

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

Information pertaining to particular risks to the environment

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

5 mL Fluoride 2 (R0)

Chemical:	acetone	CAS No.:	67-64-1
Classification:	H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3, EUH066, Skin Irrit. 2		
Formula:	C ₃ H ₆ O; (CH ₃) ₂ -CO		
Pseudonym:	2-propanone		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119471330-49-xxxx		
EC No.:	200-662-2	Indice No.:	606-001-00-8
RTECS:	AL3150000	MFCD:	00008765
KE No.:	KE-29367		
Concentration:	40 - <60 %		
acc. CLP (GHS):	H225, Flam. Liq. 2, H319, Eye Irrit. 2, H336, STOT SE 3, EUH066, Skin Irrit. 2		

Chemical:	Alizarine-3-methylamine-N,N-diacetic acid (Dihydrate)	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C ₁₉ H ₁₅ NO ₈ *2H ₂ O		
TSCA Inventory:	LVE		
EC No.:	223-544-2		
Concentration:	< 1,00 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	acetate buffer solution	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	CH ₃ COOH/K/Na•H ₂ O		
TSCA Inventory:	all listed		
KE No.:	listed		
Concentration:	1 - <5 %		
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.

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- 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**
DANGER: Highly flammable (GHS regulation). Forms 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.
- 5.4 Additional information**

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): 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.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

5 mL Fluoride 2 (R0)

Chemical: *acetone*

CAS No.: 67-64-1

DNEL: [inh] (1210) mg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 10.6 mg/L
PNEC = Predicted No Effect Concentration

EU value: 500 ppm / 1200 mg/m³
 TRGS 900 (DE): 500 mL/m³ / 1200 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: 500 ppm/ 1200 mg/m³

SUVA(CH) BAT value: [U/b] 80 mg/L

TRGS 903 (DE): [U/b] 80 mg/L
B blood, U urine, a no limitation, b end of exposition or shift

NIOSH: [TWA] 250 ppm / [STEL] 590 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] 1000 ppm / [STEL] 2400 mg/m³

Chemical: *Alizarine-3-methylamine-N,N-diacetic acid (Dihydrate)*

CAS No.: -

Chemical: *acetate 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 (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

5 mL Fluoride 2 (R0)

Appearance: liquid

Colour: rose

Odor: like acetone

pH: 5-6

Flash point: < 23 °C

Specific gravity: 0,9 g/cm³

Solubility in water: 0-100 %

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

Substances are very volatile and form flammable vapour-air mixtures. ---

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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.

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.

5 mL Fluoride 2 (R0)

Chemical:	<i>acetone</i>	CAS No.:	67-64-1
TSCA Inventory:	listed	California Proposition 65 List:	not listed
ACGIH:	750 ppm		
Exposure Routes:	inhalation, ingestion, skin and/or eye contact		
Target Organs:	Eyes, skin, respiratory system, central nervous system		
Symptoms:	irritation eyes, nose, throat; headache, dizziness, central nervous system depression; dermatitis		
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	[PAC] Yes, Japan PDSCL: not listed		
Japan ISHL:	listed $\geq 1,0\%$ / $\geq 0,1\%$, Article 57-1+2 (Labelling&SDS required)		
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-29367		
LD50 _{orl rat} :	5800 mg/kg		
LC50 _{ihl rat} :	[8h] 50.1 g/m ³		
LD50 _{drm rbt} :	7.426-15.8 g/kg		

Chemical:	<i>Alizarine-3-methylamine-N,N-diacetic acid (Dihydrate)</i>	CAS No.:	-
TSCA Inventory:	LVE		

Chemical:	<i>acetate buffer solution</i>	CAS No.:	-
TSCA Inventory:	all listed		
Korea Exist.Chem.Inventory:	listed		

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

5 mL Fluoride 2 (R0)

Chemical:	<i>acetone</i>	CAS No.:	67-64-1
PNEC _(fresh water) :	10.6 mg/L		
PNEC = Predicted No Effect Concentration			
LC50 _{daphnia magna/48h} :	[48h] 8.8 g/L		
LC50 _{fish/96h} :	[4d] 5540 mg/L		
EC50 _{daphnia/48h} :	2212 mg/L		
IC50 _{scenedesmus quadricauda/72h} :	IC5: 7500 mg/L		
EC10 _{pseudomonas putida/16h} :	[30 min] 61,15 g/L		
Water hazard class (DE):	1	WGK No.:	0006
Dispersion coefficient _(octanol-water) :	-0.24		

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Storage class (VCI):	3	
Chemical:	<i>Alizarine-3-methylamine-N,N-diacetic acid (Dihydrate)</i>	CAS No.: -
Water hazard class (DE):	2	
Chemical:	<i>acetate buffer solution</i>	CAS No.: -
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**
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. UN number:	3316	14.2. UN proper shipping name:	Chemical Kit
14.3. Class:	9	14.4. Packing group:	II
<i>Road transport</i>			
Classification code:	M11	Tunnel restriction code:	E
Limited Quantity:	acc. ADR 3.3.1/251: see LQ in Alternative declaration for transportation		
<i>Air transport</i>			
PAX:	960	max. weight PAX:	10 KG
CAO:	960	max. weight CAO:	10 KG
<i>Maritime transport</i>			
EmS:	F-A, S-P	Storage category:	A

Or use **Alternative declaration for transportation:**

14.1 UN number:	1993	14.2 UN proper shipping name:	Flammable liquid, n.o.s. (acetone mixture)
14.3 Class:	3	14.4 Packing group:	II
<i>Road transport</i>			
Classification code:	F1	Tunnel restriction code:	E
Limited Quantity:	1 L	Special instructions:	640C
Excepted Quantity:	E 2		
<i>Air transport</i>			
PAX:	353	max. weight PAX:	5 L
CAO:	364	max. weight CAO:	60 L
<i>Maritime transport</i>			
EmS:	F-E, S-E	Storage category:	B

- 14.5 Environmental hazards**
none, contains only small quantities of hazardous substances
- 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

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

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

16.1.2 List of relevant P phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P260D	Do not breathe vapours.
P280sh	Wear protective gloves/eye protection.

16.2 Training advice

Regular safety training.

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.

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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