

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 1/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

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

1.1 Product identifier

REF 985050
Product name NANOCOLOR Organic acids 3000

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 0.5 mL organic Acids 3000 (R0)
1 x 11 mL organic Acids 3000 (R2)
1 x 1.5 g organic Acids 3000 (R3)
1 x 22 mL organic Acids 3000 (R4)
1 x 45 mL organic Acids 3000 (R5)

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
Valenciennr Str. 11, 52355 Düren, 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



GHS05 GHS07 GHS08 GHS09

Signal word

DANGER

Hazard identification

Hazard classes/categories

H290 Met. Corr. 1
H302 Acute Tox. 4 oral
H312 Acute Tox. 4 derm.
H314 Skin Corr. 1A
H315 Skin Irrit. 2
H317 Skin Sens. 1
H319 Eye Irrit. 2
H351 Carc. 2
H373 STOT RE 2
H400 Aquatic Acute 1

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 2/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

2.1 Classification of the substance or mixture

0.5 mL organic Acids 3000 (R0)



GHS07

GHS08

Signal word

WARNING

Hazard identification

Hazard classes/categories

H302

Acute Tox. 4 oral

H373

STOT RE 2

11 mL organic Acids 3000 (R2)



GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H315

Skin Irrit. 2

H319

Eye Irrit. 2

1.5 g organic Acids 3000 (R3)



GHS07

GHS08

GHS09

Signal word

WARNING

Hazard identification

Hazard classes/categories

H290

Met. Corr. 1

H302

Acute Tox. 4 oral

H312

Acute Tox. 4 derm.

H315

Skin Irrit. 2

H317

Skin Sens. 1

H319

Eye Irrit. 2

H351

Carc. 2

H373

STOT RE 2

H400

Aquatic Acute 1

22 mL organic Acids 3000 (R4)



GHS05

Signal word

DANGER

Hazard identification

Hazard classes/categories

H290

Met. Corr. 1

H314

Skin Corr. 1A

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 3/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

45 mL organic Acids 3000 (R5)

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

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). This labelling exemption is NOT valid for sensibilizing substances.

Metal corrosive solutions **do not have to** be labelled with GHS symbol, signal word, H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2.1.3).

0.5 mL organic Acids 3000 (R0)



GHS07 GHS08

Signal word: WARNING

11 mL organic Acids 3000 (R2)



GHS07

Signal word: WARNING

1.5 g organic Acids 3000 (R3)



GHS07 GHS08 GHS09

Signal word: WARNING

H317, H351

May cause an allergic skin reaction. Suspected of causing cancer.

P201, P261sh, P280sh

Obtain special instructions before use. Avoid breathing dust/vapours. Wear protective gloves/eye protection.

22 mL organic Acids 3000 (R4)



GHS05

Signal word: DANGER

H314

Causes severe skin burns and eye damage.

P260sh, P280sh, P303+361+353, P305+351+338, P310

Do not breathe dust/vapours. Wear protective gloves/eye protection. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 4/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

45 mL organic Acids 3000 (R5)

Do not need labelling as hazardous

Signal word: -

2.3 Other hazards

Possible hazards from physicochemical properties

Generally in the case of pH values are less than 2 or higher than 11.5 then it is corrosive. In the case of pH values are less than 5 or higher than 9 then it is irritant. H290 "May be corrosive to metals." has only relevance for higher concentrations and larger amounts. The labelling GHS05 would be creating an "OVERLABELLING" (see GHS Directive 1272/2008/EC Annex I, chapter 1.5.2.1.3., until 125 mL no labelling necessary). ---

Information pertaining to particular risks to human and possible symptoms

Causes varying degrees of acid burns on the skin, to the eyes and to the mucous membranes and wounds which do not heal quickly depending on the concentration, temperature and the exposure time. Vapours especially which steam from hot liquids and mist can have a severe irritant effect upon the eyes and the respiratory organs.

Cause after oral intake, inhalation of vapours/dust, skin contact, impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts. Suspected of causing cancer. -

Information pertaining to particular risks to the environment

Avoid contact of substance/mixture to environment.

PBT: not applicable

vPvB: not applicable

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

0.5 mL organic Acids 3000 (R0)

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

11 mL organic Acids 3000 (R2)

Chemical: sulfuric acid

CAS No.: 7664-93-9

Classification: H314, Skin Corr. 1B

Formula: H₂SO₄ (•H₂O)

TSCA Inventory: listed

REACH Reg. No.: 01-2119458838-20-xxxx

EC No.: 231-639-5

Indice No.: 016-020-00-8

RTECS: WS5600000

KE No.: KE-32570, >10% Toxic 97-1-405, Acc. Precaution Chem.

Concentration: 5 - <15 %

acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2

1.5 g organic Acids 3000 (R3)

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 5/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

Chemical: *hydroxylammonium chloride* CAS No.: 5470-11-1
Classification: H290, Met. Corr. 1, H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H315, Skin Irrit. 2, H317, Skin Sens. 1, H319, Eye Irrit. 2, H351, Carc. 2, H373, STOT RE 2, H400, Aquatic Acute 1
Formula: $\text{NH}_2\text{OH}\cdot\text{HCl}/\text{H}_4\text{ClNO}$
Pseudonym: hydroxylamin hydrochloride
TSCA Inventory: listed
REACH Reg. No.: as intermediate
EC No.: 226-798-2 Indice No.: 612-123-00-2
RTECS: NC3675000 MFCD: 00051089
KE No.: KE-20602, >1% Toxic 97-1-411
Concentration: 80 - <100 %
acc. CLP (GHS): H290, Met. Corr. 1, H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H315, Skin Irrit. 2, H317, Skin Sens. 1, H319, Eye Irrit. 2, H351, Carc. 2, H373, STOT RE 2, H400, Aquatic Acute 1

22 mL organic Acids 3000 (R4)

Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2
Classification: H290, Met. Corr. 1, H314, Skin Corr. 1B
Formula: $\text{NaOH}\cdot\text{H}_2\text{O}$
Pseudonym: soda lye
TSCA Inventory: listed
REACH Reg. No.: 01-2119457892-27-xxxx
EC No.: 215-185-5 Indice No.: 011-002-00-6
RTECS: WB4900000
KE No.: KE-31487
Concentration: 5 - <10 %
acc. CLP (GHS): H290, Met. Corr. 1, H314, Skin Corr. 1B

45 mL organic Acids 3000 (R5)

Chemical: *sulfuric acid (diluted < 5 %)* CAS No.: 7664-93-9d
Classification: H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: $\text{H}_2\text{SO}_4\cdot\text{H}_2\text{O}$
TSCA Inventory: listed
REACH Reg. No.: 01-2119458838-20-xxxx
EC No.: 231-639-5 Indice No.: 016-020-00-8
RTECS: WS5600000
KE No.: KE-32570
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. Remove contaminated clothing. Show product package, packing insert and this material safety data sheet to the doctor.

4.1.1 After SKIN Contact

Remove contaminated clothing immediately. Rinse the affected skin or mucous membrane thoroughly for min. 15 minutes under running water. (If possible) use soap. Avoid neutralisation. Then apply a loose bandage.

4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open for min. 10 minutes with eye washing bottle, eye douche or running water (protect intact eye). Before (if possible) apply eye drops Proxymetacaine 0.5%, if the opening the eyelid convulsion is painful. Further treatment to be carried out by an eye specialist.

4.1.3 After INHALATION of vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. If vomiting and if insensible place patient in recovery position and keep airways free. ---

4.1.4 After ORAL Intake

After oral intake lots of water with activated charcoal supplement should be drunk after it has been ingested. Do not induce vomiting under any circumstances. Do not make any efforts to neutralise it. Contact medical advice for possible consequences. ---

www.mn-net.com

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 6/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

4.2 Most important symptoms and effects, both acute and delayed

May cause sensitization by skin contact, also in repeated contact of small amounts. CMR Effects: Suspected of causing cancer. ---

4.3 Indication of any immediate medical attention and special treatment needed

CORROSIVE DAMAGE: After SKIN CONTACT rinse with water for a long time. Efforts to neutralise the substance can frequently make matters worse. Apply glucocorticosteroids following inflammatory reactions. After EYE CONTACT rinse immediately with plenty of water for a long time. Eyelid convulsion measures. Name the corrosive chemical. Further treatment must be carried out by an eye specialist. After INTAKE administer aluminium oxide drug suspensions. Administer a prophylaxis to counter pulmonary oedema following the INGESTION of corrosive aerosols. In the event of RESPIRATORY DISTRESSES ensure that the patient inhales oxygen. Inform patient respectively further measures and the possibility of long-term damages. ---

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. Spray any vapours released with water. Retent fire water. Use only acid-resistant safety equipment.

For great amount - if necessary - protective breathing apparatus which is independent of the ambient air (isolated equipment), and sealed protective clothing is necessary in the event of a large-scale formation of toxic substances.

5.4 Additional information

Danger for environment **only in the event of a large-scale leakage** or formation of hazardous substances. ---

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). Wear eye protection, respectively face protection. 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.

6.4 Reference to other sections

see information in section 5.4 ---

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): 4.1A

Water hazard class (DE): 3

7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage. Use inbreakable container for transport of glass bottles.

7.3 Specific end use(s)

Product for analytical use.

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 7/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

0.5 mL organic Acids 3000 (R0)

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

11 mL organic Acids 3000 (R2)

Chemical: *sulfuric acid*

CAS No.: 7664-93-9

DNEL: [inh] 50 µg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 2.5 µg/L
PNEC = Predicted No Effect Concentration

EU value: 0.1 e mg/m³

TRGS 900 (DE): 0.1 E mg/m³
E/e respirable

Short-term exposure factor: 1 (I), Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 0,1 e mg/m³

NIOSH: NTP Report on Carcinogens (RoC) List Yes (Known to be a human carcinogen); [TWA] 1 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] 1 mg/m³

1.5 g organic Acids 3000 (R3)

Chemical: *hydroxylammonium chloride*

CAS No.: 5470-11-1

TRGS 900 (DE): 1.5 mg/m³
E/e respirable

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

22 mL organic Acids 3000 (R4)

Chemical: *sodium hydroxide solution*

CAS No.: 1310-73-2

DNEL: [inh] 1 mg/m³
DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): 2 mg/m³
E/e respirable

Short-term exposure factor: (=1=, Y)
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 2 e mg/m³

NIOSH: 2 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] 2 mg/m³

45 mL organic Acids 3000 (R5)

Chemical: *sulfuric acid*

CAS No.: 7664-93-9d

DNEL: 50 µg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water): 2.5 µg/L
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 0.1 E mg/m³
E/e respirable

Short-term exposure factor: 1 (I)
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 0,1 e mg/m³

NIOSH: NTP Report on Carcinogens (RoC) List Yes (Known to be a human carcinogen); TWA 1 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] 1 mg/m³

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 8/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

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 or face protection.

8.2.4 Skin protection

Recommended to avoid clothing damage, and to avoid contamination with these hazards.

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

0.5 mL organic Acids 3000 (R0)

Appearance: liquid	Colour: colourless	Odor: fusty, mouldy
pH: 6-8		
Melting point: -13 °C		
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		

11 mL organic Acids 3000 (R2)

Appearance: liquid	Colour: colourless	Odor: odorless
pH: 0-1		
Specific gravity: 1,07 g/cm ³		
Solubility in water: 0-100 %		

1.5 g organic Acids 3000 (R3)

Appearance: solid	Colour: colourless	Odor: odorless
pH: 4-5		
Melting point: 159 °C		
Solubility in water: 0-45 %		

22 mL organic Acids 3000 (R4)

Appearance: liquid	Colour: colourless	Odor: odorless
pH: 13-14		
Specific gravity: 1,09 g/cm ³		
Solubility in water: 0-100 %		

45 mL organic Acids 3000 (R5)

Appearance: liquid	Colour: slightly yellow	Odor: odorless
pH: 0-1		
Specific gravity: 1,03 g/cm ³		
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

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 9/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

SECTION 10: Stability and reactivity

10.1 Reactivity

Strong CORROSIVE, no further data available.

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

Can react violently with organic material. No further data available.

10.4 Conditions to avoid

Not necessary. 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.

0.5 mL organic Acids 3000 (R0)

Chemical: *ethylene glycol* 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.

11 mL organic Acids 3000 (R2)

Chemical: *sulfuric acid* CAS No.: 7664-93-9
TSCA Inventory: listed California Proposition 65 List: not listed
ACGIH: 1 ppm
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, teeth
Symptoms: irritation eyes, skin, nose, throat; pulmonary edema, bronchitis; emphysema; conjunctivitis; stomatis;
dental erosion; eye, skin burns; dermatitis
Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR: not listed, Japan PDSC: Deleterious Substance
Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-2 (SDS required)
South Korea TCCA: Accident Precaution Chemical Yes
Korea Exist.Chem.Inventory: KE-32570, >10% Toxic 97-1-405, Acc. Precaution Chem.
LD50_{orl rat}: 2140 mg/kg
LC50_{ihl rat}: [8h] 600/ [4h] 850 mg/m³
TRGS 905 (DE): Kat 4

1.5 g organic Acids 3000 (R3)

Chemical: *hydroxylammonium chloride* CAS No.: 5470-11-1
TSCA Inventory: listed California Proposition 65 List: not listed
Exposure Routes: -
Symptoms: -
Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR: not listed, Japan PDSC: Deleterious Substance
Japan ISHL: not listed
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-20602, >1% Toxic 97-1-411
LD50_{orl rat}: 141 mg/kg
Acute Effects: Cause after oral intake, inhalation of vapours/dust, skin contact, impairments of health when ingested in small quantities.

www.mn-net.com

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 10/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

Chronic Effects: May cause sensitization by skin contact, also in repeated contact of small amounts. May cause damage to organs through prolonged or repeated exposure.

Carcinogenic Effects: Suspected of causing cancer.

TRGS 907 (DE): Sh

22 mL organic Acids 3000 (R4)

Chemical: *sodium hydroxide solution* CAS No.: 1310-73-2
TSCA Inventory: listed California Proposition 65 List: not listed
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system
Symptoms: irritation eyes, skin, mucous membrane; pneumonitis; eye, skin burns; temporary loss of hair
Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR: not listed, Japan PDSCL: not listed
Japan ISHL: listed $\geq 1,0\%$ / $\geq 1,0\%$, Article 57-2 (SDS required)
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-31487
LD50_{orl rat}: [40%] 1250 / [$<25\%$] >2000 mg/kg
LD50_{drm rbt}: not applicable
LD50_{orl mus}: 40 mg/kg

45 mL organic Acids 3000 (R5)

Chemical: *sulfuric acid* CAS No.: 7664-93-9d
TSCA Inventory: listed California Proposition 65 List: not listed
ACGIH: 1 ppm
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, teeth
Symptoms: irritation eyes, skin, nose
Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious Substance
Japan ISHL: listed $\geq 1,0\%$ / $\geq 1,0\%$, Article 57-2 (SDS required)
South Korea TCCA: Accident Precaution Chemical Yes
Korea Exist.Chem.Inventory: KE-32570
LD50_{orl rat}: 2140 mg/kg
LC50_{ihl rat}: [8h] 600/ [4h] 850 mg/m³
TRGS 905 (DE): R_F C

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

0.5 mL organic Acids 3000 (R0)

Chemical: *ethylene glycol* 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

11 mL organic Acids 3000 (R2)

Chemical: *sulfuric acid* CAS No.: 7664-93-9
PNEC_(fresh water): 2.5 µg/L
PNEC = Predicted No Effect Concentration
LC50_{fish/96h}: [NOEC, 65d] 25 µg/L
EC50_{daphnia/48h}: 100 mg/L
EC10_{pseudomonas putida/16h}: [72h] 100 mg/L
Water hazard class (DE): 1 WGK No.: 0182
Storage class (VCI): 8 B

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 11/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

1.5 g organic Acids 3000 (R3)

Chemical: *hydroxylammonium chloride*

CAS No.: 5470-11-1

Very toxic to aquatic life. Avoid contact of substance/mixture to environment.

Environmental hazards must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).

LC50_{leuciscus idus/96h}: 1-10 mg/L

Water hazard class (DE): 3

Storage class (VCI): 4.1 A

22 mL organic Acids 3000 (R4)

Chemical: *sodium hydroxide solution*

CAS No.: 1310-73-2

Avoid contact of substance/mixture to environment.

LC50_{leuciscus idus/96h}: 35-189 mg/L

LC50_{fish/96h}: 45.4 mg/L

EC50_{daphnia/48h}: >100 mg/L

Water hazard class (DE): 1 WGK No.: 142

Storage class (VCI): 8 B

45 mL organic Acids 3000 (R5)

Chemical: *sulfuric acid*

CAS No.: 7664-93-9d

PNEC_(fresh water): 2.5 µg/L

PNEC = Predicted No Effect Concentration

LC50_{fish/96h}: [NOEC, 65d] 25 µg/L

EC50_{daphnia/48h}: 100 mg/L

EC10_{pseudomonas putida/16h}: [72h] 100 mg/L

Water hazard class (DE): 1 WGK No.: 0182

Storage class (VCI): 8 B

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

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 8 II, **Excepted Quantities** (≤30 mL/Σ≤500 mL) = ADR/ IATA E2

or

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 12/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

14.1 UN number:	3266	14.2 UN proper shipping name:	Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide solution)
14.3 Class:	8	14.4 Packing group:	II
<i>Road transport</i>			
Classification code:	C5		
Limited Quantity:	1 L	Tunnel restriction code:	E
Excepted Quantity:	E 2		
<i>Air transport</i>			
PAX:	851	max. weight PAX:	1 L
CAO:	855	max. weight CAO:	30 L
<i>Maritime transport</i>			
EmS:	F-A, S-B	Storage category:	B

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

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

16.1.2 List of relevant P phrases

P201	Obtain special instructions before use.
P260sh	Do not breathe dust/vapours.
P261sh	Avoid breathing dust/vapours.
P264W	Wash with water thoroughly after handling.
P273	Avoid release to the environment.
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.
P303+361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P330	Rinse mouth.

Safety Data Sheet

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

REF: 985050

NANOCOLOR Organic acids 3000

Page: 13/13

Printing date: 15.11.2021

Date of issue: 26.05.2021

P390

Absorb spillage to prevent material damage.

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 ArbSchG)!

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.

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 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

Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress

Regulation 849/2021/EU, 4th adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated 03/2019

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

TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011

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

Revisions/Updates

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