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

### 1.1 Product identifier

REF 985023
Product name NANOCOLOR COD 10000

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 COD 10 000 (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
Valencienner 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

### 2.1 Classification of the substance or mixture

**6 mL COD 10 000 (R0)**



GHS05 GHS07 GHS08

Signal word DANGER

| Hazard identification | Hazard classes/categories |
|---|---|
| H302 | Acute Tox. 4 oral |
| H312 | Acute Tox. 4 derm. |
| H314 | Skin Corr. 1A |
| H317 | Skin Sens. 1 |
| H332 | Acute Tox. 4 inh. |
| H340 | Muta. 1B |
| H350 | Carc. 1B |
| H360Df | Repr. 1B |
| H373 | STOT RE 2 |
| H412 | Aquatic Chronic 3 |
| H413 | Aquatic Chronic 4 |

### 2.2 Label elements



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MACHEREY-NAGEL ISO 9001 CERTIFIED
Version: M V 4.12.0

According **CLP directive** inner packages must be only labelled with GHS symbol(s) and product identificator(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.

**6 mL COD 10 000 (R0)**



GHS05 GHS07 GHS08

Signal word: DANGER

H314, H317, H340, H350, H360Df, H412
Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause genetic defects. May cause cancer. May damage the unborn child. Suspected of damaging fertility. Harmful to aquatic life with long lasting effects.

P201, P260sh, P280sh, P303+361+353, P305+351+338, P310, P405
Obtain special instructions before use. 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. Store locked up.

### 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. ---

**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. May cause genetic defects. May cause cancer. May cause cancer if inhaled. Can accumulate within the body.
The risk assessment of the tube tests showed no risk H331 "Toxic if inhaled." at the application. -

**Information pertaining to particular risks to the environment**
Harmful to aquatic life with long lasting effects. 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

**6 mL COD 10 000 (R0)**

Chemical: *silver sulfate* CAS No.: 10294-26-5
Classification: H318, Eye Dam. 1, H400, Aquatic Acute 1, H410, Aquatic Chronic 1
Formula: $Ag_2SO_4$
Pseudonym: disilver(1+) sulfate
TSCA Inventory: listed
REACH Reg. No.: 01-2119918297-31-xxxx
EC No.: 233-653-7
RTECS: not listed
KE No.: KE-12273, >25% Toxic 97-1-92
Concentration: 0.1 - <1 % Correlation factor: x 0.69 (= %Ag)
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.



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Chemical: *sulfuric acid* CAS No.: 7664-93-9
Classification: H314, Skin Corr. 1B
Formula: $H_2SO_4$ ($\bullet H_2O$)
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: 51 - <65 %
acc. CLP (GHS): H314, Skin Corr. 1B

Chemical: *potassium dichromate* CAS No.: 7778-50-9
Classification: H272, Ox. Liq. 2, H301, Acute Tox. 3 oral, H312, Acute Tox. 4 derm., H314, Skin Corr. 1B, H317, Skin Sens. 1, H330, Acute Tox. 2 inh., H334, Resp. Sens. 1, H340, Muta. 1B, H350, Carc. 1A, H360FD, Repr. 1B, H372, STOT RE 1, H410, Aquatic Chronic 1
Formula: $K_2Cr_2O_7$
TSCA Inventory: listed
REACH Reg. No.: 01-2119454792-32-0004
**SVHC listed: > exempt for formulation+use acc.Art56(3)+Q&A1030**
EC No.: 231-906-6 Indice No.: 024-002-00-6
RTECS: HX7680000 MFCD: 00011367
KE No.: not listed
Concentration: 0.38 - <1.26 % Correlation factor: x 0.79 (= $\%CrO_4$ )
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): H312, Acute Tox. 4 derm., H317, Skin Sens. 1, H340, Muta. 1B, H350, Carc. 1A, H360Df, Repr. 1B, H373, STOT RE 2, H412, Aquatic Chronic 3

Chemical: *mercury(II) sulfate* CAS No.: 7783-35-9
Classification: H300, Acute Tox. 2 oral, H310, Acute Tox. 2 derm., H330, Acute Tox. 2 inh., H373, STOT RE 2, H400, Aquatic Acute 1, H410, Aquatic Chronic 1
Formula: $HgSO_4$
Pseudonym: mercuric sulfate
TSCA Inventory: listed
REACH Reg. No.: not necessary, amount <1 t/a
EC No.: 231-992-5 Indice No.: 080-004-00-7
RTECS: OX0500000
KE No.: KE-23132, Toxic 97-1-140
Concentration: 0.15 - <0.37 % Correlation factor: x 0.68 (= %Hg)
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): H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H332, Acute Tox. 4 inh., H373, STOT RE 2, H413, Aquatic Chronic 4

### 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**
Causing allergies. 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. ---



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**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. ---

### 4.2 Most important symptoms and effects, both acute and delayed

Potassium dichromate: May cause sensitization by skin contact, also in repeated contact of small amounts. CMR Effects: May cause genetic defects. May cause cancer. May cause cancer if inhaled. Can accumulate within the body. ---

### 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 glucocorticosteroides 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 to 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 DISTREES 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, contains only small amounts of these substances

### 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. Products containing also toxic substances should be kept locked up.

| | |
|---|---|
| Storage class (VCI): | 8B |
| Water hazard class (DE): | 3 |

**7.2.1** **Requirements for stock rooms and containers**
Keep original product packages tightly closed during handling and storage, so that they are not immediately accessible to outside parties. Use inbreakable container for transport of glass bottles.



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| E-mail: info@mn-net.com | E-mail: sales-ch@mn-net.com | E-mail: sales-fr@mn-net.com | E-mail: sales-us@mn-net.com |

### 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**6 mL COD 10 000 (R0)**

Chemical: *silver sulfate* CAS No.: 10294-26-5

DNEL: no data
DNEL = Derived No-Effect Level (for workers)

$PNEC_{(fresh\ water)}$ : 0.04 µg/L
PNEC = Predicted No Effected Concentration

EU value: [Ag] 0.01e mg/m³
TRGS 900 (DE): [Ag] 0,01 E mg/m³
E/e respirable

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

NIOSH: [TWA] 0.01 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] 0.01 mg/m³

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 Effected 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

Chemical: *potassium dichromate* CAS No.: 7778-50-9

DNEL: [inh] 0.01 mg/m³
DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): [CrVI] (0,05 $E_{ausgesetzt}$ ) mg/m³
E/e respirable

Short-term exposure factor: (4), H
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 0,05 e mg/m³
SUVA(CH) BAT value: [U/b] 20 µg/L
NIOSH: NTP Report on Carcinogens (RoC) List Yes (Chromium VI - Known to be a human carcinogen); $TWA_{8h}$ $0.0002_{CrO3}$ 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: [CrO3][TWA] 0.005 mg/m³

Chemical: *mercury(II) sulfate* CAS No.: 7783-35-9

EU value: [Hg] 0.02 e mg/m³
TRGS 900 (DE): [Hg] 0,02 E mg/m³
E/e respirable

Short-term exposure factor: 8 (II), H, Sh
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: [Hg][MAK] 0,02 e/[STEL] 0,16 e mg/m³
SUVA(CH) BAT value: [Krea U/d] 35 µg/L
TRGS 903 (DE): [$U/a_{Kreatinin}$ ] 25 µg/g
B blood, U urine, a no limitation, b end of exposition or shift

NIOSH: [Hg Vapor: $TWA_{skin}$ ] 0.05; other 0.1 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] 0.1 mg/m³



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### 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

**6 mL COD 10 000 (R0)**

| | | |
|---|---|---|
| Appearance: liquid | Colour: brown | Odor: odorless |
| pH: | 0 | |
| Specific gravity: | 1,50 g/cm³ | |
| Solubility in water: | 0-100 % | |
| Oxidising properties: | tissue-destroying, especially in heated form | |

### 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
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.

**6 mL COD 10 000 (R0)**

| | | |
|---|---|---|
| Chemical: | *silver sulfate* | CAS No.: 10294-26-5 |
| TSCA Inventory: | listed | |
| Exposure Routes: | inhalation, ingestion, skin and/or eye contact | |
| Target Organs: | Nasal septum, skin, eyes | |
| Symptoms: | Blue-gray eyes, nasal septum, throat, skin; irritation, ulceration skin; gastrointestinal disturbance | |



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Japan CSCL/PRTR: PRTR: ≥1,0%Ag class I, Japan PDSCL: Deleterious substance
Japan ISHL: listed ≥1,0%/≥0,1%
Korea Exist.Chem.Inventory: KE-12273, >25% Toxic 97-1-92
$LD50_{orl\ rat}$ : 2000-5110 mg/kg

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 PDSCL: 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

Chemical: *potassium dichromate* CAS No.: 7778-50-9
TSCA Inventory: listed California Proposition 65 List: listed cancer, developmental, female, male
ACGIH: [CrVI] 0.05 mg/m³
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Blood, respiratory system, liver, kidneys, eyes, skin; [lung cancer]
Symptoms: irritation respiratory system; nasal septum perforation; liver, kidney damage; leukocytosis (increased blood leukocytes), leukopenia (reduced blood le
Japan CSCL/PRTR: PRTR: ≥0,1% Cr specific class I, Japan PDSCL: Deleterious substance
Japan ISHL: listed ≥0,1%/≥0,1%, Article 57-2 (SDS required)
South Korea TCCA: yes, Restricted Chemical
Korea Exist.Chem.Inventory: not listed
$LD50_{orl\ rat}$ : 25 mg/kg
$LC_Low_{orl\ gpg}$ : 163 mg/kg
$LC50_{ihl\ rat}$ : $0.094_{4h}$ mg/L
$LD50_{drm\ rbt}$ : 14 mg/kg
Acute Effects: Cause after inhalation of vapours/dust, skin contact, impairments of health when ingested in small quantities.
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: May cause genetic defects. May cause cancer. May cause cancer if inhaled.
EU carcinogen: carc. 1B, mutag. 1B, repr. 1B
TRGS 905 (DE): K2
TRGS 907 (DE): Sh

Chemical: *mercury(II) sulfate* CAS No.: 7783-35-9
TSCA Inventory: listed California Proposition 65 List: listed developmental
Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, central nervous system, kidneys
Symptoms: irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headac
Australia NICNAS: not listed Canada CEPA 1999: yes (mercury compound - Item 8.)
Japan CSCL/PRTR: PRTR: ≥1,0%Hg class I, Japan PDSCL: Poisonous substance
Japan ISHL: listed ≥0,3%/≥0,1%, Article 57-2 (SDS required)
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-23132, Toxic 97-1-140
$LD50_{orl\ rat}$ : 57 mg/kg
$LD50_{drm\ rat}$ : 625 mg/kg
Acute Effects: Cause after oral intake, inhalation of vapours/dust, skin contact, impairments of health when ingested in small quantities.
Chronic Effects: May cause damage to organs through prolonged or repeated exposure.
TRGS 907 (DE): Sh



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## SECTION 12: Ecological information

### 12.1 Toxicity

**Following information is valid for pure substances.**

**6 mL COD 10 000 (R0)**

Chemical: *silver sulfate* CAS No.: 10294-26-5

$PNEC_{(fresh\ water)}$ : 0.04 µg/L
PNEC = Predicted No Effected Concentration

$LC50_{daphnia\ magna/48h}$ : 0.22 µg/L
$LC50_{fish/96h}$ : [4d] 1.2 µg/L
$EC10_{pseudomonas\ putita/16h}$ : [24h] 0.41-0.54 µg/L
Water hazard class (DE): 3
Storage class (VCI): 12

Chemical: *sulfuric acid* CAS No.: 7664-93-9
Avoid contact of substance/mixture to environment.
$PNEC_{(fresh\ water)}$ : 2.5 µg/L
PNEC = Predicted No Effected Concentration

$LC50_{fish/96h}$ : [NOEC, 65d] 25 µg/L
$EC50_{daphnia/48h}$ : 100 mg/L
$EC10_{pseudomonas\ putita/16h}$ : [72h] 100 mg/L
Water hazard class (DE): 1 WGK No.: 0182
Storage class (VCI): 8 B

Chemical: *potassium dichromate* CAS No.: 7778-50-9
Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.
Environmental hazards must not be labelled with P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).
$LC50_{fish/96h}$ : 26.13 mg/L
$EC50_{daphnia/48h}$ : 0.77 mg/L
Water hazard class (DE): 3 WGK No.: 339
Storage class (VCI): 6.1 B

Chemical: *mercury(II) sulfate* CAS No.: 7783-35-9
May cause long lasting harmful effects to aquatic life. Avoid contact of substance/mixture to environment.
Environmental hazards must not be labelled with P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).
Bio Toxicity: $LC_{50}$ : $0.5_{HgCl2/48h}$ mg/L
Water hazard class (DE): 3 WGK No.: 0412
Storage class (VCI): 6.1 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). Close container tightly.

### 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:**

**14.1 UN number: 2922**
**14.2 UN proper shipping name: Corrosive liquid, toxic, n.o.s. (sulfuric acid, mercury(II) sulfate solution)**
**14.3 Class: 8** Additionally class: **6.1 _14.4 Packing group: II**

*Road transport*

| | | | |
|---|---|---|---|
| Classification code: | CT1 | | |
| Limited Quantity: | 1 L | Tunnel restriction code: | E |
| Excepted Quantity: | E 2 | | |

*Air transport*

| | | | |
|---|---|---|---|
| PAX: | 851 | max. weight PAX: | 1 L |
| CAO: | 855 | max. weight CAO: | 30 L |

*Maritime transport*

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

### 14.5 Environmental hazards

none, contains only small quantities of hazardous substances, contains only small amounts of these 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. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H332 | Harmful if inhaled. |
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H360Df | May damage the unborn child. Suspected of damaging fertility. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |



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| | |
|---|---|
| H412 | Harmful to aquatic life with long lasting effects. |
| H413 | May cause long lasting harmful effects 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. |
| P308+313 | IF exposed or concerned: Get medical advice/attention. |
| P310 | Immediately call a POISON CENTER/doctor. |
| P330 | Rinse mouth. |
| P405 | Store locked up. |

## 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

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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
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
Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
TRGS 905, German engineering rules governing carcinogens and mutagens, updated 03/18
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*



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