

# Safety Data Sheet

according to Regulations REACH 1907/2006/EC

REF: 985031	NANOCOLOR Cyanide 08	Page: 1/13
Printing date: 15.05.2024	Date of issue: 01.02.2024	Version: 2.2.2.6

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

### 1.1 Product identifier

REF 985031  
 Product name NANOCOLOR Cyanide 08

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 2 mL Cyanide 08 (R0)  
 1 x 20x 12 mg NANOFIX Cyanide 08 (R2) UFI: A9HU-H3E1-F205-8R1X  
 1 x 11 mL Cyanide 08 (R3) UFI: MQSU-431X-F20P-3658

### 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  
 Valenciener Str. 11, 52355 Düren, Germany  
 Phone: +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, <<https://www.ggiz-erfurt.de>>

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

## SECTION 2: Hazard identification

### 2.0 Classification of the complete product according to Regulation (EC) 1272/2008



GHS05 GHS07 GHS08

Signal word DANGER

Hazard identification	Hazard classes/categories
H302	Acute Tox. 4 oral
H314	Skin Corr. 1 B
H334	Resp. Sens. 1
EUH031	-

### 2.1 Classification of the substance or mixture according to Regulation (EC) 1272/2008

20x 12 mg NANOFIX Cyanide 08 (R2)



GHS05 GHS07 GHS08



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Signal word	DANGER
<b>Hazard identification</b>	<b>Hazard classes/categories</b>
EUH031	-
H302	Acute Tox. 4 oral
H314	Skin Corr. 1 B
H334	Resp. Sens. 1

### 11 mL Cyanide 08 (R3)



GHS07

Signal word	WARNING
<b>Hazard identification</b>	<b>Hazard classes/categories</b>
H315	Skin Irrit. 2
H319	Eye Irrit. 2

### 2 mL Cyanide 08 (R0)

Signal word Do not need labelling as hazardous

-  
No hazard class

List of H phrases: see section 16.2

## 2.2 Label elements according regulation (EC) 1272/2008

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 sensiblizing substances.

### 20x 12 mg NANOFIX Cyanide 08 (R2)



GHS05



GHS07



GHS08

Signal word: DANGER  
H314, H334  
Causes severe skin burns and eye damage.May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
P260sh, P264, P280sh, P284, P303+361+353, P305+351+338, P310, P405, P501  
Do not breathe dust/vapours.Wash hands thoroughly after handling.Wear protective gloves/eye protection.[In case of inadequate ventilation] wear respiratory 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.Dispose of contents/container to regulated waste treatment.

### 11 mL Cyanide 08 (R3)



GHS07

Signal word: WARNING



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**2 mL Cyanide 08 (R0)**  
 Do not need labelling as hazardous  
 Signal word: -

### Label elements of the complete product



Signal word: DANGER  
 H314, H334  
 Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. P260sh, P264, P280sh, P284, P303+361+353, P305+351+338, P310, P405, P501  
 Do not breathe dust/vapours. Wash hands thoroughly after handling. Wear protective gloves/eye protection. [In case of inadequate ventilation] wear respiratory 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. Dispose of contents/container to regulated waste treatment.

## 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, impairments of health when ingested in small quantities. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### Information pertaining to particular risks to the environment

Should not be released into the environment.

**PBT:** not applicable

**vPvB:** not applicable

### Possible endocrine disrupting effects

no data available

## SECTION 3: Composition / information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 20x 12 mg NANOFIX Cyanide 08 (R2)

Substance name: *chloramine T*  
 CAS No.: 127-65-1

Substance rating: H302, Acute Tox. 4 oral, H314, Skin Corr. 1 B, H334, Resp. Sens. 1, EUH031, not defined  
 Formula: C<sub>7</sub>H<sub>7</sub>ClNNaO<sub>2</sub>S  
 Pseudonym (de): Tosylchloramid-Na  
 EC No.: 204-854-7      Indice No.: 616-010-00-9  
 Concentration: 10 - <17 %  
 acc. CLP (GHS): The criteria for classification are not fulfilled.

Substance name: *chloramine T*  
 CAS No.: 127-65-1

Substance rating: H302, Acute Tox. 4 oral, H314, Skin Corr. 1 B, H334, Resp. Sens. 1, EUH031, not defined  
 Formula: C<sub>7</sub>H<sub>7</sub>ClNNaO<sub>2</sub>S  
 Pseudonym (de): Tosylchloramid-Na  
 EC No.: 204-854-7      Indice No.: 616-010-00-9  
 Concentration: 17 - <30 %  
 acc. CLP (GHS): H302, Acute Tox. 4 oral, H314, Skin Corr. 1 B, H334, Resp. Sens. 1, EUH031,



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## 11 mL Cyanide 08 (R3)

Substance name: *sodium hydroxide solution*  
CAS No.: 1310-73-2

Substance rating: H314, Skin Corr. 1 A  
Formula: NaOH·H<sub>2</sub>O  
Pseudonym (de): verdünnte Natronlauge  
REACH Reg. No.: 01-2119457892-27-xxxx  
EC No.: 215-185-5

Indice No.: 011-002-00-6

Specific concentration limit: Eye Irrit. 2; H319: 0,5 % ≤ C < 2 % - Skin Corr. 1A; H314: C ≥ 5 % - Skin Corr. 1B;  
H314: 2 % ≤ C < 5 % - Skin Irrit. 2; H315: 0,5 % ≤ C < 2 %

Concentration: 1 - <2 %  
acc. CLP (GHS): H315, Skin Irrit. 2, H319, Eye Irrit. 2

Substance name: *pyridine-4-carbonic acid (isonicotinic acid)*  
CAS No.: 55-22-1

Substance rating: H315, Skin Irrit. 2, H319, Eye Irrit. 2  
Formula: C<sub>6</sub>H<sub>5</sub>NO<sub>2</sub>  
Pseudonym (de): iso-Nicotinsäure  
EC No.: 200-228-2  
Concentration: 1 - <10 %  
acc. CLP (GHS): The criteria for classification are not fulfilled.

Substance name: *1,3-dimethylbarbituric acid*  
CAS No.: 769-42-6

Substance rating: H302, Acute Tox. 4 oral, H318, Eye Dam. 1  
Formula: C<sub>6</sub>H<sub>8</sub>N<sub>2</sub>O<sub>3</sub>  
EC No.: 212-211-7  
Concentration: 3 - <20 %  
acc. CLP (GHS): The criteria for classification are not fulfilled.

## 2 mL Cyanide 08 (R0)

Substance name: *citrate buffer solution*  
CAS No.: -

Substance rating: No criteria for classification or naming of chemical not required.  
Concentration: 10 - <25 %  
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 16.2.

## 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. Take to a doctor, in a raised position if there are breathing difficulties.

#### 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. Administer a Dexamethasone spray as soon as possible. Ensure quiet, warmth, and provide resuscitation if necessary. In the event of respiratory distress ensure that the patient inhales oxygen. Secure the breathing, heart and circulatory function. ---



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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**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled. Chronic effects: Repeated contact, even in small amounts, can lead to sensitization. Rapid penetration and destruction of the skin. Especially in the heated form. Causes severe skin burns and eye damage.
- 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 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**
  - 5.1.1 **Suitable 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.
  - 5.1.2 **Unsuitable extinguishing media**  
no data available
- 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**  
Should not be released into the environment.  
PBT: not applicable  
vPvB: not applicable
- 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 5.4,7,8 and 13

## SECTION 7: Handling and storage

- 7.1 **Precautions for safe handling**  
Handling in accordance with the test instruction, that comes with the product. Use only in well-ventilated working areas. Use a safety bottle when shaking test tubes.



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## 7.2 Conditions for safe storage, including any incompatibilities

Safe storage is guaranteed in the original packaging from MACHEREY-NAGEL. Storage class (German chemical industry): see chapter 12.1

Storage class (VCI): 8A  
 Water hazard class (DE): 2

### 7.2.1 Requirements for stock rooms and containers

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

## 7.3 Specific end use(s)

Product for analytical use.

## SECTION 8: Exposure controls /personal protection

### 8.1 Control parameters

#### 2 mL Cyanide 08 (R0)

Chemical: citrate buffer solution

CAS No.: -

#### 11 mL Cyanide 08 (R3)

Chemical: 1,3-dimethylbarbituric acid

CAS No.: 769-42-6

Chemical: pyridine-4-carbonic acid (isonicotinic acid)

CAS No.: 55-22-1

Chemical: sodium hydroxide solution

CAS No.: 1310-73-2

#### 20x 12 mg NANOFIX Cyanide 08 (R2)

Chemical: chloramine T

CAS No.: 127-65-1

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

### 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

Use for open access of these substances for example a protection filter, class A/AX. No additional recommendations.

#### 8.2.2 Skin protection / 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 / Face 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.

#### 8.2.6 Thermal hazards

no data available

### 8.3 Limitation and monitoring of environmental exposure

Do not release product into environment.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 2 mL Cyanide 08 (R0)

a) State of aggregation:	liquid
b) Colour:	colourless
c) Odor:	fusty, mouldy
d) Melting point:	no data available
e) Boiling point:	no data available



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f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	5,6
l) Kinematic viscosity:	no data available
m) Solubility in water:	0-100 %
n) Dispersion coefficient (K <sub>ow</sub> ):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density (air=1):	no data available
r) Particle size:	no data available

### 11 mL Cyanide 08 (R3)

a) State of aggregation:	liquid
b) Colour:	yellow
c) Odor:	odorless
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	7-10
l) Kinematic viscosity:	no data available
m) Solubility in water:	0-100 %
n) Dispersion coefficient (K <sub>ow</sub> ):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density (air=1):	no data available
r) Particle size:	no data available

### 20x 12 mg NANOFIX Cyanide 08 (R2)

a) State of aggregation:	solid
b) Colour:	colourless
c) Odor:	chloric
d) Melting point:	no data available
e) Boiling point:	no data available
f) Flammability:	no data available
g) Explosive limits (lower / upper):	no data available
h) Flash point:	no data available
i) Flashing temperature:	no data available
j) Decomposition temperature:	no data available
k) pH value:	5-7
l) Kinematic viscosity:	no data available
m) Solubility in water:	0-50 %
n) Dispersion coefficient (K <sub>ow</sub> ):	no data available
o) Vapour pressure (20°C):	no data available
p) Specific gravity:	no data available
q) Relative vapour density (air=1):	no data available
r) Particle size:	no data available

## 9.2 Other information

**9.2.1 Information on physical hazard classes**  
no data available

**9.2.2 Other safety-related parameters**



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No data is available for the other parameters for the mixtures, since no registration and no chemical safety report is required.

□□

Substances are highly corrosive.

## 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

Observe the storage temperature printed on it. No more required.

### 10.5 Incompatible materials

no additional data available

### 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 the hazard classes according regulation (EC) 1272/2008

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

#### 2 mL Cyanide 08 (R0)

Chemical: *citrate buffer solution*

CAS No.: -

TSCA Inventory: all listed

Korea Exist.Chem.Inventory: listed

#### 11 mL Cyanide 08 (R3)

Chemical: *1,3-dimethylbarbituric acid*

CAS No.: 769-42-6

TSCA Inventory: listed

LD50 orl rat : 1780 mg/kg

Chemical: *pyridine-4-carbonic acid (isonicotinic acid)*

CAS No.: 55-22-1

TSCA Inventory: listed

LD50 orl rat : 5000 mg/kg

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: -

Japan CSCL/PRTR: not listed, Japan PDSCL: not listed

Japan ISHL: listed  $\geq 1,0\%$ / $\geq 1,0\%$  SDS required

Korea Exist.Chem.Inventory: KE-31487

LD50 orl rat : [ $< 1\%$ ] > 50000 mg/kg

LD50 orl mus : [ $< 1\%$ ] > 4000 mg/kg

#### 20x 12 mg NANOFIX Cyanide 08 (R2)

Chemical: *chloramine T*

CAS No.: 127-65-1

TSCA Inventory: listed California Proposition 65 List: not listed

Australia NICNAS: not listed Canada CEPA 1999: DSL Yes

Japan CSCL/PRTR: not listed, Japan PDSCL: not listed

Japan ISHL: not listed

South Korea TCCA: not listed

Korea Exist.Chem.Inventory: 2000-3-1539



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LD50 <sub>ori rat</sub> : 1000 mg/kg

Acute Effects: Cause after oral intake, 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 allergy or asthma symptoms or breathing difficulties if inhaled.

## 11.2 Other hazards

### Possible endocrine disrupting effects

no data available

### Other information

no additional data available

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 2 mL Cyanide 08 (R0)

Substance name: *citrate buffer solution*

CAS-Nr.: -

Water hazard class (DE): 0

Storage class (VCI): 12

#### 11 mL Cyanide 08 (R3)

Substance name: *1,3-dimethylbarbituric acid*

CAS-Nr.: 769-42-6

Water hazard class (DE): 2

Storage class (VCI): 12-13

Substance name: *pyridine-4-carbonic acid (isonicotinic acid)*

CAS-Nr.: 55-22-1

Water hazard class (DE): 1

Storage class (VCI): 12-13

Substance name: *sodium hydroxide solution*

CAS-Nr.: 1310-73-2

LC50 <sub>leuciscus idus/96h</sub> : 35-189 mg/L

LC50 <sub>fish/96h</sub> : 45.4 mg/L

EC50 <sub>daphnia/48h</sub> : >100 mg/L

Water hazard class (DE): nwg WGK No.: 0142

Storage class (VCI): 12-13

#### 20x 12 mg NANOFIX Cyanide 08 (R2)

Substance name: *chloramine T*

CAS-Nr.: 127-65-1

Do not release into the environment.

Water hazard class (DE): 2 WGK No.: 0640

Storage class (VCI): 8 A

### 12.2 Persistence and degradability

### 12.3 Bioaccumulative potential

### 12.4 Mobility in soil

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

no data available

### 12.7 Other adverse effects

no additional data available



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## 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

Not necessary, see above.

## 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 ADR*

Classification code: M11 Tunnel restriction code: E

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

*Air transport IATA DGR*

Limited Quantity: PAX: 960 max. quantity PAX: 10 KG  
CAO: 960 max. quantity CAO: 10 KG

*Maritime transport IMDG*

EmS: F-A, S-P Staukategorie: A

Or use **Alternative declaration for transportation:**

UN No.: (see below) class 8 II, **Excepted Quantities** ( $\leq 30 \text{ mL} / \Sigma \leq 500 \text{ mL}$ ) = ADR/ IATA E2

or

**14.1 UN number:** 3266

**14.2 UN proper shipping name:** Corrosive liquid, basic, inorganic, n.o.s. (...)

**14.3 Class:** 8

**14.4 Packing group:** II

*Road transport ADR*

Classification code: C5 Tunnel restriction code: E  
Limited Quantity: 1 L  
Excepted Quantity: E 2

*Air transport IATA DGR*

Limited Quantity: PAX: 851 max. quantity PAX: 1 L  
CAO: 855 max. quantity CAO: 30 L  
Excepted Quantity: E 2

*Maritime transport IMDG*

EmS: F-A, S-B Staukategorie: B  
Special instructions: 274

### 14.5 Environmental hazards

none, contains only small quantities of hazardous substances

### 14.6 Special precautions for user

not necessary

### 14.7 Carriage in bulk by sea in accordance with IMO instruments

Not applicable.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Dangerous Substances Protection Act (DE: Chemikaliengesetz - ChemG), Aug 2013, Stand: Okt 2020  
Ordinance on protection against dangerous substances (E: Gefahrstoffverordnung - GefStoffV), Nov 2010, Stand: Mrz 2017  
TRGS 201, Classification and labeling of activities involving hazardous substances, Feb 2017  
TRGS 220, National aspects when preparing safety data sheets, Jan 2017  
TRGS 400, Risk assessment for activities involving hazardous substances, Jul 2017  
TRGS 401, Skin contact hazard - identification, assessment, action, Jun 2008, status: Feb 2011  
BekGS 408, Application of the GefStoffV and the TRGS with the entry into force of the CLP regulation, December 2009, status: Jan 2012  
TRGS 500, Protective measures, Mai 2008  
TRGS 510, Storage of hazardous substances in portable containers from March 2013, status: Oct 2015  
Chapter 4, Measures when storing hazardous substances up to 50 kg (small quantity regulation)



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Wasserhaushaltsgesetz - WHG, Section 3 Handling substances hazardous to water, Jul 2009, status: Aug 2016  
 MN leaflet/instructions for use, also at [www.mn-net.com](http://www.mn-net.com)  
 If necessary, observe other country-specific regulations.

**15.2 Chemical safety assessment**  
 not necessary for these small amounts

## SECTION 16: Other information

### 16.1 Changes compared to the last version

Between versions 2.2.2.6 and 2.2.2.2 following changes were applied: - 4 substance data corrected

### 16.2 List of H and P phrases

#### 16.2.1 List of relevant H phrases

H	Between versions 2.2.2.6 and 2.2.2.2 following changes were applied: - 4 substance data corrected
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
EUH031	Contact with acids liberates toxic gas.

#### 16.2.2 List of relevant P phrases

P260sh	Do not breathe dust/vapours.
P264	Wash hands thoroughly after handling.
P280sh	Wear protective gloves/eye protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
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.
P405	Store locked up.
P501	Dispose of contents/container to regulated waste treatment.

### 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 Sources of key data

KÜHN, BIRETT, Leaflets on hazardous materials, 2021  
 Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres  
 SUVA .CH, limit values in the air at work 2009, revised on 01/2009  
 Regulation 790/2009/EU, adaptation of Regulation 1272/2008/EU to technical and scientific progress (1st ATP)  
 Regulation 453/2010/EU, adaptation of the REACH regulation 1907/2006/EG  
 TRGS 907, German technical rules for listing substances and causes of sensitization, updated November 2011  
 Regulation 487/2013/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (4th ATP)  
 Regulation 1221/2015/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (7th ATP)  
 Regulation 776/2017/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (10th ATP)  
 Regulation 669/2018/EU, adaptation of Regulation 1272/2008/EC to technical and scientific progress (11th ATP)  
 Regulation 1480/2018/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (13th ATP)  
 Regulation 521/2019/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (12th ATP)  
 TRGS 900, German rules of technology on limit values in the air at work, as of 03/2019  
 Regulation 217/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (14th ATP)  
 Regulation 878/2020/EU, adaptation of Annex II of the REACH regulation 1907/2006/EG  
 Regulation 1182/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (15th ATP)  
 Regulation 643/2021/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (16th ATP)  
 Regulation 849/2021/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (17th ATP)  
 Regulation 692/2022/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (18th ATP)

#### revisions/updates

Reason for revision: 2014-02 Corrected structure of the sections according to Regulation 453/2010/EU, if necessary  
 2014-04 adjustment according Regulation 487/2013/EU  
 2016-03 adjustment according Regulation 1221/2015/EU



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*2017-11 adjustment according the ECHA registration dossier  
2022-11 adjustment according Regulation 878/2020/EU*

## 16.5 Further information

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## 16.6 Legend / Abbreviations

acc:	according
ADR:	Convention concerning the International Carriage of Dangerous Goods by Road
Act:	acute
BAT:	biological workplace tolerance value
CAO:	Cargo Aircraft Only
Carc:	carcinogen
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging regulation
CMR:	carcinogen, mutagen, reproduction toxic
Corr:	corrosive
COD:	chemical oxygen demand
CSCL:	Chemical Substance Control Law (Jp)
Dam:	damage
DNEL:	Derived No-Effect Level (for workers)
derm:	dermal
dog:	dog
EC10:	Concentration causing a toxic effect in 10% of the test organisms
EC:	European Community
EC-Nr:	Substance number of the EC substance inventory
EmS:	Guide to accident management measures on ships
EU:	European Union
fish:	fish (not specified)
GHS:	Global Harmonized System of Classification and Labeling of Chemicals
gpg:	guinea pig
ICAO:	International Civil Aviation Organization
ihl:	inhaled
IMDG:	International Maritime Dangerous Goods Code
intrav:	intravenous
ipt:	intraperitoneal
ISHL:	Industrial Safety and Health Law (Jp)
LC50:	lethal concentration 50%
LD50:	lethal dose 50%
leuciscus idus:	fisch, ide, orfe
MAK:	maximum workplace concentration
Met:	Metall
mus:	mouse
Muta:	mutagen
NIOSH:	National Institute for Occupational Safety and Health (US)
NRD:	Non-rapidly degradable
onchorhynchus mykiss:	fish, rainbow trout
orl:	oral
OSHA:	Occupational Safety and Health Administration
PAX:	transport on passenger planes allowed
PBT:	persistent, bioaccumulating, toxic substance
pH:	pH value
pimephales promelas:	fish, fathead minnow
PNEC:	Predicted No Effect Concentration
PROC 15:	Process category 'for laboratory use'
PRTR:	Law for PRTR and Promotion of Chemical Management (Jp)
PVC:	polyvinyl chloride
quail:	bird, quail
rat:	rat
rbt:	rabbit
RD:	rapidly degradable



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- RE: repeated
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- REF: item number, reference number
- Reg.No.: rRegistration number
- Repr: harmful to reproduction
- Resp: respiratory
- RIP: REACH Implementations Projects
- scu: sub cutan
- SDS: safety data sheet
- Sens: sensitisation
- STEL: short term exposure limit
- STOT: Specific Target Organ Toxicity
- SVHC: Substance of Very High Concern
- t/a: tons per year
- TCCA: Toxic Chemicals Control Act (S. Korea)
- Tox: toxic
- TSCA: The Toxic Substances Control Act (US)
- TWA: time weighted average
- TRGS: technical regulations (DE)
- vPvB: very persistent, very bioaccumulating substance

### 16.7 Training advice

Regular safety training. 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.

