Safety Data Sheet

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

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

1.1 Product identifier

REF 91895
Product name NANOCOLOR Zinc

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.

1 x 100 mL Zinc R1
1 x 100 mL Zinc R2
1 x 100 mL Zinc R3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses
Product for analytical use.
Exposure Scenario Classification according REACh, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0
The exposure scenario is integrated into sections 1-16.
Uses advised against
not described

1.3 Details of the supplier of the safety data sheet

Manufactured by:
MACHEREY-NAGEL GmbH & Co. KG
Neumann-Neander-Str. 6-8, 52355 Dueren, GERMANY
Tel.: +49 2421 969 0 E-mail: sds@mn-net.com (msds@mn-net.com)

1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.
DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

You find our current versions of SDS (22 languages) in Internet: **http://www.mn-net.com/SDS**

SECTION 2: Hazard identification

2.0 Classification of the complete product

GHS06 GHS07 GHS09

Signal word DANGER

Hazard identification	Hazard classes/categories
EUH032	not defined
H301	Acute Tox. 3 oral
H311	Acute Tox. 3 derm.
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H331	Acute Tox. 3 inh.
H411	Aquatic Chronic 2

2.1 Classification of the substance or mixture

100 mL Zinc R1

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GHS06 GHS09

Signal word DANGER

Hazard identification	Hazard classes/categories
EUH032	not defined
H301	Acute Tox. 3 oral
H311	Acute Tox. 3 derm.
H331	Acute Tox. 3 inh.
H411	Aquatic Chronic 2

100 mL Zinc R2

Do not need labelling as hazardous

Signal word -

No hazard class

100 mL Zinc R3

GHS06 GHS07

Signal word DANGER

Hazard identification	Hazard classes/categories
H301	Acute Tox. 3 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2

2.2 Label elements

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).

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).

100 mL Zinc R1

GHS06 GHS09

Signal word: DANGER

H301, H311, H331, EUH032
Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Contact with acids liberates very toxic gas.

P260D, P280sh, P301+310, P302+352, P405
Do not breathe vapours. Wear protective gloves/eye protection. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. IF ON SKIN: Wash with plenty of water. Store locked up.

100 mL Zinc R2

Do not need labelling as hazardous
Signal word: -

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100 mL Zinc R3

GHS06 GHS07

Signal word: DANGER

H301
Toxic if swallowed.

P280sh, P301+310, P405
Wear protective gloves/eye protection. IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Store locked up.

2.3 Other hazards

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

Information pertaining to particular risks to human and possible symptoms
Cause severe after oral intake, inhalation of vapours, skin contact, impairments of health or can lead to death even when only ingested in small quantities. -

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

100 mL Zinc R1

Chemical: *boric acid* CAS No.: 10043-35-3
Classification: H360FD, Repr. 1B
Formula: H_3BO_3
TSCA Inventory: listed
REACH Reg. No.: 01-2119486683-25-0024
SVHC listed: **listed (18/06/2010)**
EC No.: 233-139-2 Indice No.: 005-007-00-2
RTECS: ED4550000 MFCD: 00011337
KE No.: KE-03499
Concentration: 0,5 - <5,5 % Correlation factor: x 0.17 (= %B)
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.

Chemical: *potassium cyanide* CAS No.: 151-50-8
Classification: H300, Acute Tox. 2 oral, H310, Acute Tox. 2 derm., H330, Acute Tox. 2 inh., H410, Aquatic Chronic 1, EUH032, not defined
Formula: KCN
TSCA Inventory: listed
REACH Reg. No.: 01-2119486407-29-xxxx
EC No.: 205-792-3 Indice No.: 006-007-00-5
RTECS: TS8750000 MFCD: 00011397
KE No.: KE-29092, >1% Toxic 97-1-90
Concentration: 1 - <7 % Correlation factor: x 0.40 (= $\%CN^-$)
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): H301, Acute Tox. 3 oral, H311, Acute Tox. 3 derm., H331, Acute Tox. 3 inh., H411, Aquatic Chronic 2, EUH032, not defined

100 mL Zinc R2

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Chemical: *Zincon* CAS No.: 62625-22-3
Classification: No criteria for classification or naming of chemical not required.
Formula: $C_{20}H_{15}N_4NaO_6S{\bullet}H_2O$
Pseudonym: 2-[2-[[2-(2-hydroxy-5-sulfophenyl)diazenyl]phenylmethylene]hydrazinyl]-benzoic acid, sodium salt
TSCA Inventory: listed
EC No.: 263-651-1 MFCD: 00064385
Concentration: < 0,10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5
Classification: No criteria for classification or naming of chemical not required.
Formula: C_2H_6OS
Pseudonym: DMSO, 1,1'-sulfinylbis-methane
TSCA Inventory: listed
REACH Reg. No.: 01-2119431362-50-xxxx
EC No.: 200-664-3
RTECS: PV6210000 MFCD: 00002089
KE No.: KE-32367
Concentration: 80 - <100 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

100 mL Zinc R3

Chemical: *chloral hydrate* CAS No.: 302-17-0
Classification: H301, Acute Tox. 3 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2
Formula: $C_2H_3Cl_3O_2{\bullet}H_2O$
Pseudonym: 2,2,2-trichloroethane-1,1-diol
TSCA Inventory: listed
REACH Reg. No.: -
EC No.: 206-117-5 Indice No.: 605-014-00-6
RTECS: FM8750000 MFCD: 00044479
KE No.: KE-34070
Concentration: 30 - <55 %
acc. CLP (GHS): H301, Acute Tox. 3 oral, H315, Skin Irrit. 2, H319, Eye Irrit. 2

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. 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 with eye washing bottle, eye douche or running water (protect intact eye).

4.1.3 After INHALATION of vapours
After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. 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. ---

4.1.4 After ORAL Intake
After oral intake lots of water with activated charcoal supplement should be drunk after it has been ingested. ---

4.2 Most important symptoms and effects, both acute and delayed

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4.3 Indication of any immediate medical attention and special treatment needed

After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. In the event of RESPIRATORY DISTREES ensure that the patient inhales oxygen. TOXIFICATION: Treat symptomatically. Secure the breathing, heart and circulatory function. Remove the substance quickly from the body. Mechanically induce vomiting or ensure the patient eats medicinal charcoal compressed tablets or drinks aluminium oxide drug suspensions. In order to ensure rapid passage through the colon (administer 2 tablespoons of dissolved Glauber's salt). Alleviation of pain, if necessary sedation. Shock treatment. Administer a prophylaxis to counter pulmonary oedema. ---

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. 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 only in well-ventilated working areas.

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):	6.1B
Water hazard class (DE):	3

7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage, and store in a well-ventilated place at max. 25 °C, away or preferably separate from substances with which a hazardous reaction could take place, so that they are not immediately accessible to outside parties. Use inbreakable container for transport of glass bottles.

7.3 Specific end use(s)

Product for analytical use.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

100 mL Zinc R1

Chemical: *boric acid* CAS No.: 10043-35-3

DNEL: [derm] 392 mg/kg bw/day; [inh] 8.3 mg/m³
DNEL = Derived No-Effect Level (for workers)

$PNEC_{(fresh\ water)}$: 2.9 mg/L
PNEC = Predicted No Effected Concentration

TRGS 900 (DE): 0.5 E mg/m³
E/e respirable

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

SUVA(CH) MAK value: [Bor][MAK] 1,8e/[STEL] 1,8e mg/m³

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

Chemical: *potassium cyanide* CAS No.: 151-50-8

EU value: CN: [TWA] 1 / [STEL] 5 mg/m³

TRGS 900 (DE): [CN 8h] 1 / [15min] 5 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: 5_{CN} e mg/m³

NIOSH: not listed

NIOSH STEL: $_{skin,\ HCN}$ 4.7 ppm / 5 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: EPCRA/SARA Section 302 Extremely Hazardous Substances Yes (TPQ = 100 lbs) n/a; $TWA_{skin,\ HCN}$ 10 ppm / 11 mg/m³

100 mL Zinc R2

Chemical: *Zincon* CAS No.: 62625-22-3

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5

DNEL: 394_{inh} mg/m³
DNEL = Derived No-Effect Level (for workers)

$PNEC_{(fresh\ water)}$: 17 mg/L
PNEC = Predicted No Effected Concentration

TRGS 900 (DE): 50 ppm / 160 mg/m³
E/e respirable

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

SUVA(CH) MAK value: 50 ppm / 160 mg/m³

100 mL Zinc R3

Chemical: *chloral hydrate* CAS No.: 302-17-0

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 Hand protection
Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

8.2.3 Eye protection
Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

8.2.4 Skin protection

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Recommended 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

100 mL Zinc R1

Appearance: liquid	Colour: colourless	Odor: bitter almond
pH:	12,3-12,7	
Specific gravity:	1,06 g/cm³	
Solubility in water:	0-100 %	

100 mL Zinc R2

Appearance: liquid	Colour: red	Odor: fusty, mouldy
Flash point:	95 °C	

100 mL Zinc R3

Appearance: liquid	Colour: slightly yellow	Odor: organic
pH:	3,5-5,5	
Specific gravity:	1,24 g/cm³	
Solubility in water:	0-100 %	

9.2 Other information

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.
Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

no further data available.

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

Possible: Contact with acids liberates toxic gas. 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.

100 mL Zinc R1

Chemical:	*boric acid*	CAS No.: 10043-35-3
TSCA Inventory:	listed	California Proposition 65 List: not listed
Australia NICNAS:	not listed	Canada CEPA 1999: DSL yes
Japan CSCL/PRTR:	PRTR: ≥1,0%B class I, Japan PDSCL: not listed	
Japan ISHL:	not listed	
South Korea TCCA:	not listed	
Korea Exist.Chem.Inventory:	KE-03499	
$LD50_{orl\ rat}$:	>3765 mg/kg	

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$LC50_{ihl\ rat}$: > 2 mg/m³
$LD50_{drm\ rat}$: >2000 mg/kg

EU carcinogen: R_D 1B, R_F 1B
TRGS 905 (DE): R_E 2, R_F 2

Chemical: *potassium cyanide* CAS No.: 151-50-8
TSCA Inventory: listed California Proposition 65 List: not listed
Target Organs: act on blood or hemato-poietic system: decrease hemoglobin function; deprive body tissues of oxygen
Symptoms: cyanosis; loss of consciousness
Australia NICNAS: not listed Canada CEPA 1999: DSL Yes
Japan CSCL/PRTR: Poisonous substance, PRTR: ≥1,0% CN class I, Japan PDSCL: Poisonous Substance
Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-1+2 (Labelling&SDS required)
South Korea TCCA: not listed
Korea Exist.Chem.Inventory: KE-29092, >1% Toxic 97-1-90
$LD50_{orl\ rat}$: 5 mg/kg
$LC\_Low_{orl\ hmn}$: 2.86 mg/kg
$LD50_{drm\ rbt}$: 14.3-33.3 mg/kg
$LD50_{ipr\ rat}$: 4 mg/kg
$LD50_{orl\ mus}$: 8.5 mg/kg
$LD50_{scu\ rat}$: 7.8 mg/kg
Acute Effects: Cause severe after oral intake, inhalation of vapours, skin contact, impairments of health or can lead to death even when only ingested in small quantities.
TRGS 905 (DE): R_F C

100 mL Zinc R2

Chemical: *Zincon* CAS No.: 62625-22-3
TSCA Inventory: listed
$LD50_{orl\ rat}$: >2000 mg/kg

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-32367
$LD50_{orl\ rat}$: 14.5 g/kg
$LD50_{drm\ rat}$: 40 g/kg

100 mL Zinc R3

Chemical: *chloral hydrate* CAS No.: 302-17-0
TSCA Inventory: listed California Proposition 65 List: listed, cancer
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: KE-34070
$LD50_{orl\ rat}$: 479 mg/kg
$LC\_Low_{orl\ hmn}$: 4 mg/kg
$LD50_{ihl\ rat}$: 3030 mg/L
Acute Effects: Cause severe after oral intake, impairments of health or can lead to death even when only ingested in small quantities.

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

100 mL Zinc R1

Chemical: *boric acid* CAS No.: 10043-35-3
$PNEC_{(fresh\ water)}$: 2.9 mg/L
PNEC = Predicted No Effected Concentration
$LC50_{fish/96h}$: [4d] 79.7 mg/L
$EC50_{daphnia/48h}$: 91-165 mg/L
$IC50_{scenedesmus\ quadricauda/72h}$: [72h] 52.4 mg/L

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$EC10_{pseudomonas\ putita/16h}$: [EC10] 10 mg/L
Water hazard class (DE): 1 WGK No.: 0315
$Dispersion\ coefficient_{(octanol-water)}$: -1.09
Storage class (VCI): 6.1 D

Chemical: *potassium cyanide* CAS No.: 151-50-8
Toxic to aquatic life with long lasting effects. 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).
$LC50_{daphnia\ magna/48h}$: 2_{48h} ; 0.53_{24h} mg/L
$LC50_{fish/96h}$: 0.45 mg/L
$EC50_{daphnia/48h}$: 0.041 mg/L
$IC50_{scenedesmus\ quadricauda/72h}$: 0.03_{8d} mg/L
$EC10_{pseudomonas\ putita/16h}$: EC10/16h: 0.001 mg/L
Water hazard class (DE): 3 WGK No.: 338
Storage class (VCI): 6.1 B

100 mL Zinc R2
Chemical: *Zincon* CAS No.: 62625-22-3
Water hazard class (DE): 3
Storage class (VCI): 12-13

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5
$PNEC_{(fresh\ water)}$: 17 mg/L
PNEC = Predicted No Effected Concentration
$LC50_{fish/96h}$: 38.5 g/L
$EC50_{daphnia/48h}$: 24.6 g/L
$EC10_{pseudomonas\ putita/16h}$: EC/16h: 7100 mg/L
Water hazard class (DE): 1 WGK No.: 5050
$Dispersion\ coefficient_{(octanol-water)}$: -1.35
Storage class (VCI): 12

100 mL Zinc R3
Chemical: *chloral hydrate* CAS No.: 302-17-0
Avoid contact of substance/mixture to environment.
Water hazard class (DE): 2 WGK No.: 0051
Storage class (VCI): 6.1 D

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

Do not collect in acidic waste. May form toxic gases.
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
Normally it is possible to empty small amounts (diluted!) into drains.
Dispose of contents/container to regulated waste treatment.

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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: 2810 14.2 UN proper shipping name: Toxic liquid, organic, n.o.s. (chloral hydrate solution)
14.3 Class: 6.1 14.4 Packing group: III

Road transport

Classification code:	T1		
Limited Quantity:	5 L	Tunnel restriction code:	E
Excepted Quantity:	E 1		

Air transport

PAX:	655	max. weight PAX:	60 L
CAO:	663	max. weight CAO:	220 L

Maritime transport

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

14.1 UN number: 3413 14.2 UN proper shipping name: Potassium cyanide solution
14.3 Class: 6.1 14.4 Packing group: II

Road transport

Classification code:	T4		
Limited Quantity:	100 mL	Tunnel restriction code:	E
Excepted Quantity:	E 4		

Air transport

PAX:	654	max. weight PAX:	5 L
CAO:	662	max. weight CAO:	60 L

Maritime transport

EmS:	F-A, S-A	Storage category:	B
Maritime pollutant (5.2.1.6):		P	(Limited Quantity (LQ) until 5 L|kg per inner package)

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 ---

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SECTION 16: Other information

16.1 List of H and P phrases

16.1.1 List of relevant H phrases

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H411	Toxic to aquatic life with long lasting effects.
EUH032	Contact with acids liberates very toxic gas.

16.1.2 List of relevant P phrases

P260D	Do not breathe vapours.
P261sh	Avoid breathing dust/vapours.
P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302+352	IF ON SKIN: Wash with plenty of water.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311	Call a POISON CENTER/doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
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

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

Regulation 790/2009/EU adaptation of CLP regulation 1272/2008/EU to technical and scientific progress
Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS
Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated 03/2018
SUVA .CH, Limits in air at work 2009, revised on 01.2009
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

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

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