

Safety Data Sheet

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

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

1.1 Product identifier

REF 91318
 Product name QUANTOFIX Cyanide

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 test strips
 1 x 7 g CN⁻ -1
 1 x 25 mL CN⁻ -2

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.
 If CE labelling: Product for in-vitro-diagnostic use (IVD) or Accessory for medical use

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: 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

SECTION 2: Hazard identification

2.0 Classification of the complete product

Directive 1999/45/EC
 Symbols



Xn
 R 42

R

CLP Directive 1272/2008/EC
 GHS pictograms



GHS02



GHS07



GHS08

Signal word

DANGER

Hazard identification

H226
 H315
 H319
 H332
 H334

Hazard classes/categories

Flammable Liquid cat. 3
 Skin Irritation cat. 2
 Eye Irritation cat. 2
 Acute Tox. 4 inh.
 Resp. Sens. 1A/1B

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2.1 Classification of the substance or mixture

100 test strips

Directive 1999/45/EC

Symbols - do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms do not need labelling as hazardous
Signal word -

No hazard class

7 g CN⁻ -1

Directive 1999/45/EC

Symbols - do not need labelling as hazardous

CLP Directive 1272/2008/EC

GHS pictograms do not need labelling as hazardous
Signal word -

No hazard class

25 mL CN⁻ -2

Directive 1999/45/EC

Symbols R 42

Xn

CLP Directive 1272/2008/EC

GHS pictograms
  
GHS02 GHS07 GHS08

Signal word DANGER

Hazard identification

Hazard classes/categories

H226	Flammable Liquid cat. 3
H315	Skin Irritation cat. 2
H319	Eye Irritation cat. 2
H332	Acute Tox. 4 inh.
H334	Resp. Sens. 1A/1B

2.2 Label elements

According 1999/45/EC small amounts of harmful and highly flammable preparations/mixtures have partly/completely exemption from labelling (no symbols F, O, Xn, Xi, N and no R and S phrases are necessary) until **25-125 mL/g**. This labelling exemption is NOT valid for sensibilizing mixtures.

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier (EU 1272/2008 Annex I - 1.5.1.2). Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases **until 125 mL** (EU 1272/2008 Annex I - 1.5.2). This labelling exemption is NOT valid for sensibilizing substances.

100 test strips

Directive 1999/45/EC

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Symbols:

-
-

S 22

Do not breathe dust.

CLP Directive 1272/2008/EC

GHS pictograms:
do not need labelling as hazardous
Signal word: -

7 g CN⁻ -1

Directive 1999/45/EC

Symbols:

-
-

CLP Directive 1272/2008/EC

GHS pictograms:
do not need labelling as hazardous
Signal word: -

25 mL CN⁻ -2

Directive 1999/45/EC

Symbols:



Xn

R 42

May cause sensitization by inhalation.

S 26-36/37/39

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection.

CLP Directive 1272/2008/EC

GHS pictograms:



GHS02



GHS07



GHS08

Signal word: DANGER

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

P261sh, P342+311

Avoid breathing dust/vapours. If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...

2.3 Other hazards

Possible Hazards from physicochemical Properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. Vapour forms explosive mixtures with air.

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Information pertaining to particular Risks to Human and possible Symptoms

Cause after impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Information pertaining to particular Risks to the Environment

PBT: not applicable
vPvB: not applicable

Other Hazards

Contains an odor intensive reagent. ---

SECTION 3: Composition/Information on Ingredients

3.1 Substances or 3.2 Mixtures

100 test strips

Chemical:	<i>cellulose</i>	CAS No.:	9004-34-6
Concentration:	1 - <10 %		
Formula:	(C ₆ H ₁₀ O ₅) _n		
REACH Reg. No.:	exempt, Annex IV		
EC No.:	232-674-9		
RTECS:	FJ5691460		
TSCA Inventory:	listed		
KE No.:	KE-05339		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

Chemical:	<i>chemicals/mixture < 1%, no declaration necessary</i>	CAS No.:	-
Concentration:	0,1 - <1 %		
TSCA Inventory:	all <1%		
KE No.:	listed		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

Chemical:	<i>PVC foil (CAS 9002-86-2)</i>	CAS No.:	-
Concentration:	95 - <100 %		
TSCA Inventory:	listed		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

7 g CN⁻ -1

Chemical:	<i>phosphates (buffer salts)</i>	CAS No.:	-
Concentration:	75 - <100 %		
Formula:	Me ₁₋₃ H ₂₋₀ PO ₄		
TSCA Inventory:	all listed		
KE No.:	listed		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

25 mL CN⁻ -2

Chemical:	<i>pyridine</i>	CAS No.:	110-86-1
Concentration:	25 - <44 %		
Formula:	C ₅ H ₅ N		
Pseudonym:	Azabenzene, Azine		
REACH Reg. No.:	01-2119493105-40-xxxx		
EC No.:	203-809-9	Indice No.:	613-002-00-7
RTECS:	UR8400000		MFCD: 00011732
TSCA Inventory:	listed		
KE No.:	KE-29929		
acc. 1999/45/EC:	R 10-20	acc. CLP (GHS):	H226, H315, H319, H332

Chemical:	<i>chloramine T</i>	CAS No.:	127-65-1
Concentration:	1 - <3 %		
Formula:	C ₇ H ₇ ClNaO ₂ S		
Pseudonym:	tosylchloramide sodium, Benzenesulfonamide, N-chloro-4-methyl-benzenesulfonamide, sodium salt		
EC No.:	204-854-7	Indice No.:	616-010-00-9
RTECS:	XT5616800		MFCD: 00000522
TSCA Inventory:	listed		
KE No.:	2000-3-1539		
acc. 1999/45/EC:	R 42	acc. CLP (GHS):	H315, H319, H334



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3.3 Remarks

List of R, H and P phrases: see section 16.

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

4.1.1 After SKIN Contact

Remove dust with wetted tissue. Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

4.1.2 After EYE Contact

Rub dust with teardrops from eyes or: 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. 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. After inhalation of dust fresh air should be inhaled.

4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested.

4.2 Most important symptoms and effects, both acute and delayed

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. Avoid inhalation of dust. ---

4.3 Indication of any immediate medical attention and special treatment needed

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

WARNING: Flammable (GHS regulation). May form explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible.

5.3 Advice for firefighters

No, for listed product. Product package burns like paper or plastic.

5.4 Additional Information

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

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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.

Storage class (VCI): 3
Water hazard class (DE): 2

7.2.1 Requirements for Stock Rooms and Containers

Keep original product packages tightly closed during handling and storage.

7.3 Specific end use(s)

Product for analytical use.

If CE labelling: Product for in-vitro-diagnostic use (IVD) or Accessory for medical use

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

100 test strips

Chemical: cellulose

CAS No.: 9004-34-6

TRGS 900 (DE): Staub 1.25 A / 4 E mg/m³
E/e respirable

SUVA(CH) MAK value: 3 a ppm

NIOSH: TWA 10 (total) / 5 (resp) mg/m³

OSHA: TWA 15 (total) / 5 (resp) mg/m³

Chemical: chemicals/mixture < 1%, no declaration necessary

CAS No.: -

Chemical: PVC foil (CAS 9002-86-2)

CAS No.: -

7 g CN⁻ -1

Chemical: phosphates (buffer salts)

CAS No.: -

25 mL CN⁻ -2

Chemical: pyridine

CAS No.: 110-86-1

EU value: 5 ppm / 15 mg/m³

TRGS 900 (DE): 5 ppm / 15 mg/m³

E/e respirable

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

SUVA(CH) MAK value: 5 ppm / 15 mg/m³

NIOSH: TWA 5 ppm / 15 mg/m³

OSHA: TWA 5 ppm / 15 mg/m³

Chemical: chloramine T

CAS No.: 127-65-1

NIOSH: not listed

OSHA: not listed

8.2 Exposure controls

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

Recommended to avoid contamination with these hazards.

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LD50_{drm rbt} : >2000 mg/kg

Chemical: *chemicals/mixture < 1%, no declaration necessary* CAS No.: -
 TSCA Inventory: all <1%
 Korea Exist.Chem.Inventory: listed

Chemical: *PVC foil (CAS 9002-86-2)* CAS No.: -
 TSCA Inventory: listed

7 g CN⁻ -1

Chemical: *phosphates (buffer salts)* CAS No.: -
 TSCA Inventory: all listed
 Korea Exist.Chem.Inventory: listed
 LD50_{orl rat} : > 2000 mg/kg

25 mL CN⁻ -2

Chemical: *pyridine* CAS No.: 110-86-1
 TSCA Inventory: listed California Proposition 65 List: listed cancer
 Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact
 Target Organs: Eyes, skin, central nervous system, liver, kidneys, gastrointestinal tract,
 Symptoms: irritation eyes; headache, anxiety, dizziness, insomnia; nausea, anorexia; dermatitis; liver, kidney
 damage
 Japan CSCL/PRTR: PRTR: ≥1,0% class I
 Korea Exist.Chem.Inventory: KE-29929
 LD50_{orl rat} : 891 mg/kg
 LC_{LoWhl rat} : 4000_{4h} mg/m³
 LC_{LoWorl gpg} : 4000 mg/kg
 LC_{LoWorl hmn} : 500 mg/kg
 LC50_{ihl rat} : 28500_{1h} mg/m³
 LD50_{drm rbt} : 1121 mg/kg
 Acute Effects: Cause after skin contact, impairments of health when ingested in small quantities.
 TRGS 905 (DE): carc. 3B_{DFG}

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 ISHL: not listed
 Japan PDSCL: not listed
 South Korea TCCA: not listed
 Korea Exist.Chem.Inventory: 2000-3-1539
 LD50_{orl rat} : ~1000 mg/kg
 Acute Effects: Cause after 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.

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

100 test strips

Chemical: *cellulose* CAS No.: 9004-34-6
 Water hazard class (DE): nwg
 Storage class (VCI): 11

Chemical: *chemicals/mixture < 1%, no declaration necessary* CAS No.: -
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

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Chemical: *PVC foil (CAS 9002-86-2)* CAS No.: -

7 g CN⁻ -1

Chemical: *phosphates (buffer salts)* CAS No.: -
 Water hazard class (DE): 1
 Storage class (VCI): 13

25 mL CN⁻ -2

Chemical: *pyridine* CAS No.: 110-86-1
 LC50_{fish/96h}: 4.6 mg/L
 EC50_{daphnia/48h}: 240_{24h} mg/L
 IC50_{scenedesmus quadricauda/72h}: IC50_{7d}: 120 mg/L
 EC10_{pseudomonas putida/16h}: EC50_{16h}: 340 mg/L
 Water hazard class (DE): 2 WGK No.: 0179
 Dispersion coefficient_(octanol-water): 0.65
 Storage class (VCI): 3

Chemical: *chloramine T* CAS No.: 127-65-1
 Water hazard class (DE): 2 WGK No.: 0640
 Storage class (VCI): 8 A

- 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 - 14.4: No dangerous goods according the transport regulations

- 14.5 Environmental hazards**
not necessary
- 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



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15.2 Chemical safety assessment not necessary for these small amounts

SECTION 16: Other Information

16.1 List of R, H and P phrases

16.1.1 List of relevant R phrases

R10 Flammable.
R20 Harmful by inhalation.
R42 May cause sensitization by inhalation.

16.1.2 List of relevant H phrases

H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

16.1.3 List of relevant P phrases

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261sh Avoid breathing dust/vapours.
P280sh Wear protective gloves/eye protection.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...

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 DE §§ 4 und 5 MuSchRiv)!

An individual package of this product or test kit has a moderate hazardous potential.

16.4 Further Information

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

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16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS

Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress

TRGS 900, German engineering rules governing limits in air at work, updated September 2016

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

You find our current versions of MSDS in Internet:

<http://www.mn-net.com/MSDS>