

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

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Printing date: 17.03.2017 Date of issue: 28.02.2017

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

1.1 **Product identifier**

REF 91307

Product name **QUANTOFIX Aluminium**

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 30 mL Al³⁺ -1 1 x 30 mL Al³⁺ -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



CLP Directive 1272/2008/EC

GHS pictograms





GHS07

GHS05

DANGER Signal word

Hazard identification Hazard classes/categories

H290 Metal Corrosion cat. 1 H302 Acute Tox. 4 oral

H314 Skin Corrosion 1A. Serious Damage to Eyes 1

H315 Skin Irritation cat. 2 H319 Eye Irritation cat. 2

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DE and international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984 Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272 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

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2.1 Classification of the substance or mixture

100 test strips

Directive 1999/45/EC

do not need labelling as hazardous Symbols

CLP Directive 1272/2008/EC

GHS pictograms do not need labelling as hazardous

Signal word

No hazard class

30 mL Al3+ -1

Directive 1999/45/EC

R 35 Symbols

CLP Directive 1272/2008/EC

GHS pictograms



Signal word **DANGER**

Hazard identification Hazard classes/categories

H290 Metal Corrosion cat. 1 H302 Acute Tox. 4 oral

H314 Skin Corrosion 1A. Serious Damage to Eyes 1

30 mL Al³⁺ -2

Directive 1999/45/EC

R 36/38

Symbols



CLP Directive 1272/2008/EC

GHS pictograms



GHS07

Signal word WARNING

Hazard identification Hazard classes/categories H315 Skin Irritation cat. 2 H319 Eye Irritation cat. 2

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

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

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US: Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984 Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272 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



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Annex I - 1.5.2).

100 test strips

Directive 1999/45/EC

Symbols:

S 22

Do not breathe dust.

CLP Directive 1272/2008/EC

GHS pictograms:

do not need labelling as hazardous

Signal word: -

30 mL Al3+ -1

Directive 1999/45/EC Symbols:

E.

С

R 35

Causes severe burns.

S 26-36/37/39-45

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. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

CLP Directive 1272/2008/EC GHS pictograms:





GHS05

GHS07

Signal word: DANGER

H314

Causes severe skin burns and eye damage.

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

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

30 mL Al3+ -2

Directive 1999/45/EC Symbols:



Χi

R 36/38

Irritating to eyes and skin.

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DE and international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984

Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272

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



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S 23-26-45

Do not breathe vapour. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

CLP Directive 1272/2008/EC GHS pictograms:



Signal word: WARNING

2.3 Other hazards

Possible Hazards from physicochemical Properties

Generally in the case of pH values are less than 2 or higher than 11.5 then it is corrosive. In the case of pH values are less than 5 or higher than 9 then it is irritant.

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.

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 test strips

Chemical: cellulose CAS No.: 9004-34-6

 $\begin{tabular}{llll} Concentration: & 1 - < 10 \% \\ Formula: & (C_6 \, H_{10} \, O_5 \,)_n \\ REACH Reg. \ No.: & exempt, Annex IV \\ EC \ No.: & 232-674-9 \\ RTECS: & FJ5691460 \\ TSCA \ Inventory: & listed \\ KE \ No.: & KE-05339 \\ \end{tabular}$

acc. 1999/45/EC: - acc. CLP (GHS): not necessary

Chemical: chemicals/mixture < 1%, no declaration necessary CAS No.: -

Concentration: 0,1 - <1 % KE No.: listed

acc. 1999/45/EC: - acc. CLP (GHS): not necessary

Chemical: *PVC foil (CAS 9002-86-2)*Concentration: 95 - <100 %

Concentration: 95 - <100 % acc. 1999/45/EC: - acc. CLP (GHS): not necessary

30 mL Al3+ -1

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DE and international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984

Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272

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



CAS No.: 1310-58-3

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Chemical: potassium hydroxide solution

Concentration: 14 - <55 %Formula: $KOH \cdot H_2 O$

REACH Reg. No.: 01-2119487136-33-xxxx

EC No.: 215-181-3 Indice No.: 019-002-00-8

RTECS: TT2100000

TSCA Inventory: listed

KE No.: KE-29139, >5% Toxic 97-1-137

acc. 1999/45/EC: R 35 acc. CLP (GHS): H290, H302, H314

30 mL Al3+ -2

Chemical: acetic acid CAS No.: 64-19-7

Concentration: 10 - <25 %Formula: $C_2 H_4 O_2$

REACH Reg. No.: 01-2119475328-30-xxxx

EC No.: 200-580-7 Indice No.: 607-002-00-6 RTECS: AF1225000 MFCD: 00036152

TSCA Inventory: listed KE No.: KE-00013

acc. 1999/45/EC: R 36/38 acc. CLP (GHS): H315, H319

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. Remove contaminated clothing. Show product package, packing insert and this material safety data sheet to the doctor.

4.1.1 After SKIN Contact

Remove dust with wetted tissue. 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

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

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

Avoid inhalation of dust. ---

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.

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.

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DE and international: CH: FR: US:

 Tel.:
 +49 24 21 969-0
 Tel.:
 +41 62 388 55 00
 Tel.:
 +33 388 68 22 68
 Tel.:
 +1 484 821 0984

 Fax:
 +49 24 21 969-199
 Fax:
 +41 62 388 55 05
 Fax:
 +33 388 51 76 88
 Fax:
 +1 484 821 1272

 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

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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

Wear suitable protective gloves (see 8.2.2). Wear eye protection, respectively face protection. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.

6.2 Environmental precautions

not necessary

6.3 Methods and material for containment and cleaning up

Bind any escaping liquid with inert absorbent. And dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with plenty of water.

Collect small amounts of leaked liquid and flush with water into drains.

6.4 Reference to other sections

see information in section 5.4 ---

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handling in accordance with the test instruction, that comes with the product.

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): 1

7.2.1 Requirements for Stock Rooms and Containers

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

7.3 Specific end use(s)

Product for analytical use.

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.: -

30 mL Al3+ -1

Chemical: potassium hydroxide solution CAS No.: 1310-58-3

 $\begin{array}{lll} \text{DNEL:} & 1_{\text{inh}} \, \text{mg/m}^{\text{3}} \\ \text{DNEL = Derived No-Effect Level (for workers)} \\ \text{SUVA(CH) MAK value:} & 2 \, \text{e mg/m}^{\text{3}} \\ \text{NIOSH:} & \text{C 2 mg/m}^{\text{3}} \end{array}$

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DE and international: CH: FR: US:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984

Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272

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



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OSHA: none

30 mL Al³⁺ -2

Chemical: acetic acid CAS No.: 64-19-7

EU value: 10 ppm / 25 mg/m³ TRGS 900 (DE): 10 mL/m³ / 25 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: 10 ppm / 25 mg/m³

NIOSH: TWA 10 ppm / 25 mg/m³; ST 15 ppm / 37 mg/m³

OSHA: TWA 10 ppm / 25 mg/m³

8.2 Exposure controls

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

100 test strips

Appearance: solid Color: colored Odor: odorless

30 mL Al3+ -1

Appearance: liquid Color: colourless Odor: odorless

pH: 14
Specific gravity: 1,51 g/mL
Solubility in water: 0-100 %

30 mL Al³⁺ -2

Appearance: liquid Color: colourless Odor: acetic

pH: 2-3
Specific gravity: 1,03 g/mL
Solubility in water: 0-100 %

9.2 Other information

Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No known instability.

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DE and international: CH: FR:

 Tel.:
 +49 24 21 969-0
 Tel.:
 +41 62 388 55 00
 Tel.:
 +33 388 68 22 68
 Tel.:
 +1 484 821 0984

 Fax:
 +49 24 21 969-199
 Fax:
 +41 62 388 55 05
 Fax:
 +33 388 51 76 88
 Fax:
 +1 484 821 1272

 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



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10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Not necessary. ---

10.5 Incompatible materials

Avoid contact with concentrated acids and oxidizing agents. 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 test strips

Chemical: cellulose CAS No.: 9004-34-6

TSCA Inventory: listed California Proposition 65 List: not listed

Exposure Routes: inhalation, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system
Symptoms: irritation eyes, skin, mucous membrane

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-05339

 LD50_{orl rat}:
 >5000 mg/kg

 LC50_{ihl rat}:
 >58004_h mg/m³

 LD50_{drm rbt}:
 >2000 mg/kg

Chemical: chemicals/mixture < 1%, no declaration necessary CAS No.: -

Korea Exist.Chem.Inventory: listed

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

30 mL Al3+ -1

Chemical: potassium hydroxide solution CAS No.: 1310-58-3

TSCA Inventory: listed California Proposition 65 List: not listed

Exposure Routes: inhalation, ingestion, skin and/or eye contact

Target Organs: Eyes, skin, respiratory system

Symptoms: irritation eyes, skin, respiratory system; cough, sneezing; eye, skin burns; vomiting, diarrhea

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: not listed

Korea Exist.Chem.Inventory: KE-29139, >5% Toxic 97-1-137

LD50_{orl rat}: 273

Acute Effects: Cause after oral intake, impairments of health when ingested in small quantities.

30 mL Al³⁺ -2

Chemical: acetic acid CAS No.: 64-19-7

TSCA Inventory: listed California Proposition 65 List: not listed

Exposure Routes: inhalation, skin and/or eye contact Target Organs: Eyes, skin, respiratory system, teeth

Symptoms: irritation eyes, skin, nose, throat; eye, skin burns; skin sensitization; dental erosion; black skin,

hyperkeratosis; conjunctivitis, lacrimation (di

Australia NICNAS: not listed Canada CEPA 1999: DSL Yes

Japan CSCL/PRTR: not listed

Japan PDSCL: not listed Japan ISHL: listed ≥1,0%/≥1,0%, Article 57-2 (SDS required)

South Korea TCCA: not listed Korea Exist Chem Inventory: KE-00013

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DE and international: CH: FR: US:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984

Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272

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 LD50_{orl} rat :
 3310 mg/kg

 LC_Loworl rat :
 16000_{4h} mg/m³

 LC_Loworl rbt :
 1200 mg/kg

 LC50_{ihl mus} :
 5620 ppm/1h

 LD50_{drm rbt} :
 1060 mg/kg

 LD50_{oral mouse} :
 4960 mg/kg

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

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

30 mL Al3+ -1

Chemical: potassium hydroxide solution CAS No.: 1310-58-3

Avoid contact of substance/mixture to environment. LC50_{pimephales promelas/96h}: 880 mg/L

Water hazard class (DE): 1 WGK No.: 0345

Storage class (VCI): 8 B

30 mL Al3+ -2

Chemical: acetic acid CAS No.: 64-19-7

LC50fish/96h: 75 mg/L EC50daphnia/48h: >300,82 mg/L EC10pseudomonas putita/16h: 2850 mg/L

Water hazard class (DE): 1 WGK No.: 0093

Dispersion coefficient_(octanol-water): -0,17 Storage class (VCI): 3

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

Empty containers of corrosive reagents prior to disposal, rinse with water.

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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



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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 transport labelling

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

Alternative transport labelling follows:

UN No.: (see below) class 8 II, Excepted Quantities (≤30 mL/∑≤500 mL) = ADR/ IATA E2

or

14.1 UN number: 3266

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

14.3 Class: 8 14.4 Packing group: II

Road transport

Classification code: C5

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

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

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

R35 Causes severe burns. R36/38 Irritating to eyes and skin.

16.1.2 List of relevant H phrases

H290 May be corrosive to metals. H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.
H319 Causes serious eye irritation.

16.1.3 List of relevant P phrases

www.mn-net.com

US:



MACHEREY-NAGEL GmbH & Co. KG \cdot Neumann-Neander-Str. 6–8 \cdot 52355 Düren \cdot Germany

DE and international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984

Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272

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

MACHEREY-NAGEL



Safety Data Sheet

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

REF: 91307 QUANTOFIX Aluminium Page: 11/11

Printing date: 17.03.2017 Date of issue: 28.02.2017

P260sh Do not breathe dust/vapours.

P280sh Wear protective gloves/eye 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/...
P390 Absorb spillage to prevent material damage.

16.2 Training Advice

Multiple safety training of staffs about danger and protection by using hazards in working area. Additionally training and introduction of staffs for using these products.

16.3 Recommended Restriction on Use

Only for professional user.

Look about employee restrictions for young people (f. ex. 94/33/EC or DE § 22 JArbSchG)!

Look about employee restrictions for pregnant women and nursing women (f.ex. 92/85/EÉC 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, 4^{th} 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

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

MACHEREY-NAGEL

WIN

EN ISO 9001: 2008
CERTIFIED

Version: 2.4.2

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US:

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6–8 · 52355 Düren · Germany DE and international: CH: FR:

Tel.: +49 24 21 969-0 Tel.: +41 62 388 55 00 Tel.: +33 388 68 22 68 Tel.: +1 484 821 0984
Fax: +49 24 21 969-199 Fax: +41 62 388 55 05 Fax: +33 388 51 76 88 Fax: +1 484 821 1272
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