

Safety Data Sheet

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

REF: 91332

QUANTOFIX Arsenic 50

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Printing date: 15.11.2021

Date of issue: 14.07.2020

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

1.1 Product identifier

REF 91332
Product name QUANTOFIX Arsenic 50

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.

2 x 30 g As-1
2 x 30 g As-2
1 x 100 test sticks Arsenic

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
Valenciennener Str. 11, 52355 Düren, GERMANY
Tel.: +49 2421 969 0

E-mail: sds@mn-net.com (msds@mn-net.com)

1.4 Emergency telephone number

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

You find our current versions of SDS (22 languages) in Internet:

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

SECTION 2: Hazard identification

2.0 Classification of the complete product



GHS07 GHS09

Signal word

WARNING

Hazard identification

Hazard classes/categories

H315	Skin Irrit. 2
H319	Eye Irrit. 2
H410	Aquatic Chronic 1
H412	Aquatic Chronic 3

2.1 Classification of the substance or mixture

30 g As-1



GHS09

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Signal word

WARNING

Hazard identification

Hazard classes/categories

H410

Aquatic Chronic 1

30 g As-2



GHS07

Signal word

WARNING

Hazard identification

Hazard classes/categories

H315

Skin Irrit. 2

H319

Eye Irrit. 2

H412

Aquatic Chronic 3

100 test sticks Arsenic

Signal word

Do not need labelling as hazardous

-

No hazard class

2.2 Label elements

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).

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).

30 g As-1



GHS09

Signal word: WARNING

30 g As-2



GHS07

Signal word: WARNING

H412

Harmful to aquatic life with long lasting effects.

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Do not need labelling as hazardous

Signal word: -

2.3 Other hazards

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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

Can accumulate within the body.

-

Information pertaining to particular risks to the environment

Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.

PBT: not applicable

vPvB: not applicable

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

30 g As-1

Chemical:	<i>zinc powder (stabilized)</i>	CAS No.:	7440-66-6
Classification:	H410, Aquatic Chronic 1		
Formula:	Zn		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119467174-37-xxxx		
EC No.:	231-175-3	Indice No.:	030-002-01-9
RTECS:	ZG8600000		
KE No.:	KE-35518		
Concentration:	50 - <75 %		
acc. CLP (GHS):	H410, Aquatic Chronic 1		

30 g As-2

Chemical:	<i>aminosulfonic acid (sulfamic acid)</i>	CAS No.:	5329-14-6
Classification:	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H412, Aquatic Chronic 3		
Formula:	H ₃ NO ₃ S; NH ₂ -SO ₃ H		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119488633-28-xxxx		
EC No.:	226-218-8	Indice No.:	016-026-00-0
RTECS:	WO5950000	MFCD:	0005994x
Concentration:	90 - <100 %		
acc. CLP (GHS):	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H412, Aquatic Chronic 3		

100 test sticks Arsenic

Chemical:	<i>mercury(II) bromide</i>	CAS No.:	7789-47-1
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	HgBr ₂		
TSCA Inventory:	listed		
EC No.:	232-169-3	Indice No.:	080-004-00-7
RTECS:	OV7415000		
KE No.:	KE-23120, Toxic 97-1-140		
Concentration:	< 0.10 %	Correlation factor:	x 0.56 (= %Hg)
The classification refers to weight percent of the metal (according to CLP Regulation 2008/1272/EC Annex VI, 1.1.3.2 Note 1)			
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	<i>cellulose</i>	CAS No.:	9004-34-6
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	(C ₆ H ₁₀ O ₅) _n		
TSCA Inventory:	listed		
REACH Reg. No.:	exempt, Annex IV		
EC No.:	232-674-9		
RTECS:	FJ5691460		
KE No.:	KE-05339		
Concentration:	1 - <10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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

CAS No.: -

Classification: No criteria for classification or naming of chemical not required.

TSCA Inventory: listed

Concentration: 95 - <100 %

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 16.1

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.

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. 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

Can accumulate within the body. ---

4.3 Indication of any immediate medical attention and special treatment needed

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.

5.4 Additional information

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Regular staff training is necessary.

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.

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.

7.2 Conditions for safe storage, including any incompatibilities

The original product package of MACHEREY-NAGEL allows a safe storage.

Storage class (VCI): 8B

Water hazard class (DE): 3

7.2.1 Requirements for stock rooms and containers

Keep original product packages tightly closed during handling and storage.

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

30 g As-1

Chemical: zinc powder (stabilized)

CAS No.: 7440-66-6

DNEL: 1_{inh} mg/m³

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): 0.1A / 2E mg/m³
E/e respirable

30 g As-2

Chemical: aminosulfonic acid (sulfamic acid)

CAS No.: 5329-14-6

DNEL: [derm] 10 mg/kg bw/d; [inh] 70,5 mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 1.8 mg/L
PNEC = Predicted No Effect Concentration

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Chemical: mercury(II) bromide

CAS No.: 7789-47-1

EU value: [Hg] 0.02 e mg/m³

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

Short-term exposure factor: 8 (II), H, Sh

skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: [Hg][MAK] 0,02 e/[STEL] 0,16 e mg/m³

SUVA(CH) BAT value: [Krea U/d] 35 µg/L

TRGS 903 (DE): [U/a_{Kreatinin}] 25 µg/g
B blood, U urine, a no limitation, b end of exposition or shift

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

[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: [TWA] 0.1 mg/m³

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

[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: TWA 15 (total) / 5 (resp) mg/m³

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

CAS No.: -

8.2 Exposure controls

The highest level of cleanliness must be maintained at the workplace.

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- 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.
- 8.2.4 Skin protection**
Recommended.
- 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

30 g As-1

Appearance: powder (solid)
pH:

Colour: slightly grey
6-8

Odor: odorless

30 g As-2

Appearance: solid
pH:
Melting point:
Vapour pressure (20°C):
Specific gravity:
Solubility in water:
Volatiles by volume:

Colour: colourless
< 2
instable 205 °C
0.0078 hPa
2.12 sol. g/cm³
0-17 %
0.031 mg/m³

Odor: odorless

100 test sticks Arsenic

Appearance: solid

Colour: colourless

Odor: odorless

9.2 Other information

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

No further 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.

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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.

30 g As-1

Chemical: *zinc powder (stabilized)* CAS No.: 7440-66-6
TSCA Inventory: listed
Korea Exist.Chem.Inventory: KE-35518
LD50_{orl rat}: >2000 mg/kg
LC_{Lowinh hmn}: 124_{50min} mg/m³
LC50_{ihl rat}: >5.4_{4h} mg/m³

30 g As-2

Chemical: *aminosulfonic acid (sulfamic acid)* CAS No.: 5329-14-6
TSCA Inventory: listed
Target Organs: affect the eye or visual capacity
Symptoms: conjunctivitis; corneal damage
LD50_{orl rat}: 2065 mg/kg
LC50_{drm rbt}: 2000 mg/m³

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Chemical: *mercury(II) bromide* CAS No.: 7789-47-1
TSCA Inventory: listed California Proposition 65 List: listed developmental
Exposure Routes: inhalation, skin absorption, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, central nervous system, kidneys
Symptoms: irritation eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, indecision, headac
Japan CSCL/PRTR: PRTR: ≥1,0%Hg class I, Japan PDSC: Poisonous substance
Japan ISHL: listed ≥0,3%/≥0,1%
Korea Exist.Chem.Inventory: KE-23120, Toxic 97-1-140
LD50_{orl rat}: 40 mg/kg
LC_{Lowskn rbt}: 41 mg/kg
LD50_{drm rat}: 100 mg/kg

TRGS 907 (DE): Sh

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 PDSC: 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}: >5800_{4h} mg/m³
LD50_{drm rat}: >2000 mg/kg

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

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

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30 g As-1

Chemical: *zinc powder (stabilized)* CAS No.: 7440-66-6
 Very 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_{fish/96h}: 2.01 mg/L
 EC50_{daphnia/48h}: 0.131 mg/L
 EC50_{pseudokirchneriella subcapitata/72h}: IC50: 0.713 mg/L
 Water hazard class (DE): 2 WGK No.: 7325
 Storage class (VCI): 13

30 g As-2

Chemical: *aminosulfonic acid (sulfamic acid)* CAS No.: 5329-14-6
 Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment.
 Environmental hazards must not be labelled with P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).
 PNEC (fresh water): 1.8 mg/L
 PNEC = Predicted No Effect Concentration
 LC50_{fish/96h}: [4d] 70.3 mg/L
 EC50_{daphnia/48h}: [48h=24h] 71.6 mg/L
 IC50_{scenedesmus quadricauda/72h}: [72h] 48 mg/L
 Water hazard class (DE): 1 WGK No.: 1266
 Dispersion coefficient_(octanol-water): -4.34
 Storage class (VCI): 8 B

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Chemical: *mercury(II) bromide* CAS No.: 7789-47-1
 Bio Toxicity: LC50: 0.5_{HgCl2}/48h mg/m³
 Water hazard class (DE): 3 WGK No.: 0398
 Storage class (VCI): 6.1 B

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

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

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

none, contains only small amounts of these substances

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14.6 Special precautions for user

not necessary

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not applicable

SECTION 15: Regulatory information

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

German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013
German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC
TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011
MN Leaflet/User manual, also see www.mn-net.com
Look for your country-specific regulations.

15.2 Chemical safety assessment

not necessary for these small amounts ---

SECTION 16: Other information

16.1 List of H and P phrases

16.1.1 List of relevant H phrases

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16.1.2 List of relevant P phrases

P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P391	Collect spillage.

16.2 Training advice

Multiple safety training of staffs about danger and protection by using hazards in working area.

16.3 Recommended restriction on use

Only for professional user.
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
Regulation 669/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 1480/2018/EU, 4th adaptation of CLP regulation to technical and scientific progress
Regulation 849/2021/EU, 4th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated 03/2019
SUVA .CH, Limits in air at work 2009, revised on 01.2009
KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

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