

Safety Data Sheet

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

REF: 970002

Bio Fix nitrification inhib. test N-Tox

Page: 1/8

Printing date: 15.11.2021

Date of issue: 06.06.2018

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

1.1 Product identifier

REF

970002

Product name

Bio Fix nitrification inhib. test N-Tox

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 N-Tox R1

1 x 5 mL N-Tox R3

1 x 100 mL N-Tox R4

1 x 2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

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

Valenciennner 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

Information not necessary.

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

-

2.1 Classification of the substance or mixture

100 mL N-Tox R1

Signal word

Do not need labelling as hazardous

-

No hazard class

5 mL N-Tox R3

Signal word

Do not need labelling as hazardous

-

No hazard class

100 mL N-Tox R4

Signal word

Do not need labelling as hazardous

-

No hazard class

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2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

Signal word Do not need labelling as hazardous
-

No hazard class

2.2 Label elements

100 mL N-Tox R1

Do not need labelling as hazardous
Signal word: -

5 mL N-Tox R3

Do not need labelling as hazardous
Signal word: -

100 mL N-Tox R4

Do not need labelling as hazardous
Signal word: -

2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

Do not need labelling as hazardous
Signal word: -

2.3 Other hazards

Possible hazards from physicochemical properties

According to our current status of knowledge and experience we state, that this product does not contain any substances, which - in accordance with EC regulations 1272/2008/EC, 1907/2006/EC and German Regulations for Hazardous goods - have to be declared as dangerous goods, either because of their applied concentration or because of their total amount in anyone kit. An individual package has considerably less hazardous potential. ---

Information pertaining to particular risks to human and possible symptoms

Information pertaining to particular risks to the environment

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

100 mL N-Tox R1

Chemical:	2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid	CAS No.:	7365-45-9
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C ₈ H ₁₈ N ₂ O ₄ S		
Pseudonym:	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid		
TSCA Inventory:	listed		
EC No.:	230-907-9		
RTECS:	TL6809000	MFCD:	00006158
Concentration:	< 0.10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	inorganic salts, declaration not necessary	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
Pseudonym:	not hazardous		
TSCA Inventory:	all listed		
KE No.:	listed		
Concentration:	< 0.10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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5 mL N-Tox R3

Chemical: *sodium nitrite* CAS No.: 7632-00-0
Classification: No criteria for classification or naming of chemical not required.
Formula: NaNO_2
Pseudonym: nitrous acid, sodium salt
TSCA Inventory: listed
REACH Reg. No.: 01-2119471836-27-xxxx
EC No.: 231-555-9 Indice No.: 007-010-00-4
RTECS: RA1225000
KE No.: KE-31546, >25% Toxic 97-1-167
Concentration: < 0.10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

100 mL N-Tox R4

Chemical: *2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid* CAS No.: 7365-45-9
Classification: No criteria for classification or naming of chemical not required.
Formula: $\text{C}_8\text{H}_{18}\text{N}_2\text{O}_4\text{S}$
Pseudonym: 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid
TSCA Inventory: listed
EC No.: 230-907-9
RTECS: TL6809000 MFCD: 00006158
Concentration: < 0.10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *inorganic salts, declaration not necessary* CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
Pseudonym: not hazardous
TSCA Inventory: all listed
KE No.: listed
Concentration: < 0.10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

Chemical: *bacteria strain N-Tox, risk group 1* CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
Formula: nitrobacter winogradskyi
Concentration: 10 - <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%.

SECTION 4: First aid measures

4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately.

4.1.1 After SKIN Contact

4.1.2 After EYE Contact

4.1.3 After INHALATION of vapours

4.1.4 After ORAL Intake

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

No additionally recommendations. ---

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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

None.

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

.

6.2 Environmental precautions

not necessary

6.3 Methods and material for containment and cleaning up

Clean working area with water. Flush used water into drains.

6.4 Reference to other sections

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): 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.

7.3 Specific end use(s)

Product for analytical use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

100 mL N-Tox R1

Chemical: 2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid

CAS No.: 7365-45-9

Chemical: inorganic salts, declaration not necessary

CAS No.: -

5 mL N-Tox R3

Chemical: sodium nitrite

CAS No.: 7632-00-0

DNEL: 2_{inh} mg/m³
DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): -
E/e respirable

100 mL N-Tox R4

Chemical: 2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid

CAS No.: 7365-45-9

Chemical: inorganic salts, declaration not necessary

CAS No.: -

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2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

Chemical: *bacteria strain N-Tox, risk group 1*

CAS No.: -

8.2 Exposure controls

Not necessary.

8.2.1 Respiratory protection

Not necessary.

8.2.2 Hand protection

Not necessary.

8.2.3 Eye protection

Not necessary.

8.2.4 Skin protection

Not necessary.

8.2.5 Personal hygiene

Information not necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

100 mL N-Tox R1

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7,5-8

Specific gravity:

1,0 g/cm³

5 mL N-Tox R3

Appearance: liquid

Colour: colourless

Odor: odorless

100 mL N-Tox R4

Appearance: liquid

Colour: colourless

Odor: odorless

pH:

7,5-8

Specific gravity:

1,01 g/cm³

2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

Appearance: liquid

Colour: colourless

Odor: odorless

Specific gravity:

1,0 g/cm³

9.2 Other information

Relevant Properties of Substance Group

SECTION 10: Stability and reactivity

10.1 Reactivity

None

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

None.

10.4 Conditions to avoid

Not known. ---

10.5 Incompatible materials

Not known.

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.

100 mL N-Tox R1

Chemical: 2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid
TSCA Inventory: listed
LD50_{orl rat}: >2000 mg/kg

CAS No.: 7365-45-9

Chemical: inorganic salts, declaration not necessary
TSCA Inventory: all listed
Korea Exist.Chem.Inventory: listed

CAS No.: -

5 mL N-Tox R3

Chemical: sodium nitrite
TSCA Inventory: listed
Japan CSCL/PRTR: not listed, Japan PDSCL: Deleterious substance
Japan ISHL: not listed
Korea Exist.Chem.Inventory: KE-31546, >25% Toxic 97-1-167
LD50_{orl rat}: 85 mg/kg
LC_{LoWorl hmn}: 71 mg/kg
LC50_{ihl rat}: 5.5 mg/m³
LD50_{orl mus}: 214-216 mg/kg

CAS No.: 7632-00-0

100 mL N-Tox R4

Chemical: 2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid
TSCA Inventory: listed
LD50_{orl rat}: >2000 mg/kg

CAS No.: 7365-45-9

Chemical: inorganic salts, declaration not necessary
TSCA Inventory: all listed
Korea Exist.Chem.Inventory: listed

CAS No.: -

2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

Chemical: bacteria strain N-Tox, risk group 1

CAS No.: -

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

100 mL N-Tox R1

Chemical: 2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid
Water hazard class (DE): 1
Storage class (VCI): 10-13

CAS No.: 7365-45-9

Chemical: inorganic salts, declaration not necessary
Water hazard class (DE): 1
Storage class (VCI): 12-13

CAS No.: -

5 mL N-Tox R3

Chemical: sodium nitrite
LC50_{fish/96h}: 0.56-1.78 mg/L
EC50_{daphnia/48h}: 12.5-100 mg/L
IC50_{scenedesmus quadricauda/72h}: EC50/72 h: >100 mg/L
Water hazard class (DE): 3 WGK No.: 161
Dispersion coefficient_(octanol-water): -3.7
Storage class (VCI): 6.1 B

CAS No.: 7632-00-0

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100 mL N-Tox R4

Chemical: 2-[4-(hydroxyethyl)-1-piperazinyl]ethanesulfonic acid

CAS No.: 7365-45-9

Water hazard class (DE): 1

Storage class (VCI): 10-13

Chemical: inorganic salts, declaration not necessary

CAS No.: -

Water hazard class (DE): 1

Storage class (VCI): 12-13

2 mL N-Tox R2 (1.5...5x10¹⁰ cfu/mL)

Chemical: bacteria strain N-Tox, risk group 1

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

Not necessary.

13.1 Waste treatment methods

GENERAL: Empty solids into municipal waste, empty liquids diluted into drains.

SECTION 14: Transport information

14.1 - 14.4 Not necessary

14.5 Environmental hazards

none

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

MN Leaflet/User manual, also see www.mn-net.com

Look for your country-specific regulations.

15.2 Chemical safety assessment

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SECTION 16: Other information

16.1 List of H and P phrases

16.1.1 List of relevant H phrases

16.1.2 List of relevant P phrases

16.2 Training advice

Regular safety training.

16.3 Recommended restriction on use

None

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