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

1.1 Product identifier

REF: 92140
Product name: pH-Fix 5.1-7.2

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 Indicator sticks

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
Valencienner Str. 11, 52355 Düren, Germany
Phone: +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 in Internet: <http://www.mn-net.com/SDS>

SECTION 2: Hazard identification

2.0 Classification of the complete product according to Regulation (EC) 1272/2008

2.1 Classification of the substance or mixture according to Regulation (EC) 1272/2008

100 Indicator sticks

Do not need labelling as hazardous

Signal word: -

No hazard class

List of H phrases: see section 16.2

2.2 Label elements according regulation (EC) 1272/2008

100 Indicator sticks

Do not need labelling as hazardous

Signal word: -

Label elements of the complete product

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

Possible endocrine disrupting effects
no data available

SECTION 3: Composition / information on ingredients

3.1 Substances or 3.2 Mixtures

100 Indicator sticks

<table>
<thead>
<tr>
<th>Substance name</th>
<th>PVC foil (CAS 9002-86-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No.</td>
<td>-</td>
</tr>
<tr>
<td>Substance rating</td>
<td>No criteria for classification or naming of chemical not required.</td>
</tr>
<tr>
<td>Concentration acc. CLP (GHS)</td>
<td>95 - &lt;100 %</td>
</tr>
</tbody>
</table>

Substance name: indicator dye(s)

| CAS No.                         | -                         |
| Substance rating                | No criteria for classification or naming of chemical not required. |
| Concentration acc. CLP (GHS)    | 0,01 - <0,1 %              |

Substance name: cellulose paper

| CAS No.                         | 9004-34-6                  |
| Substance rating                | No criteria for classification or naming of chemical not required. |
| Formula                         | (C₆H₁₀O₅)ₙ                  |
| REACH Reg. No.                  | exempt, Annex IV           |
| EC No.                          | 232-674-9                  |
| Concentration acc. CLP (GHS)    | 1 - <10 %                  |

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 16.2.

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
Remove dust with wetted tissue.

4.1.2 After EYE Contact
Rub dust with teardrops from eyes

4.1.3 After INHALATION of vapours
After inhalation of dust fresh air should be inhaled. ---

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. ---
SECTION 5: Firefighting measures

5.1 Extinguishing media

5.1.1 Suitable 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. 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.

5.1.2 Unsuitable extinguishing media
no data available

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
Safe storage is guaranteed in the original packaging. Storage class (German chemical industry): see chapter 12.1 Storage class (VCI):
Water hazard class (DE): nwg

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 Indicator sticks
Chemical: PVC foil (CAS 9002-86-2) CAS No.: -
Chemical: indicator dye(s) CAS No.: -
Chemical: cellulose paper CAS No.: 9004-34-6
TRGS 900 (DE): Staub 1.25 A / 4 E mg/m³
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
8.2 Exposure controls

Not necessary.

8.2.1 Respiratory protection
Not necessary.

8.2.2 Skin protection / Hand protection
Not necessary.

8.2.3 Eye / Face Protection
Not necessary.

8.2.4 Skin protection
Not necessary.

8.2.5 Personal hygiene
Information not necessary.

8.2.6 Thermal hazards
no data available

8.3 Limitation and monitoring of environmental exposure

Information not necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

100 Indicator sticks
a) State of aggregation: solid
b) Colour: colored
c) Odor: odorless
d) Melting point: no data available
e) Boiling point: no data available
f) Flammability: no data available
g) Explosive limits (lower / upper): no data available
h) Flash point: no data available
i) Flashing temperature: no data available
j) Decomposition temperature: no data available
k) pH value: no data available
l) Kinematic viscosity: no data available
m) Solubility in water: no data available
n) Dispersion coefficient (o/w): no data available
o) Vapour pressure (20°C): no data available
p) Specific gravity: no data available
q) Relative vapour density (air=1): no data available
r) Particle size: no data available

9.2 Other information

Properties relevant to substance groups

---

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.

SECTION 11: Toxicological information

11.1 Information on the hazard classes according regulation (EC) 1272/2008

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

<table>
<thead>
<tr>
<th>Chemical: PVC foil (CAS 9002-86-2)</th>
<th>CAS No.: -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical: indicator dye(s)</td>
<td>CAS No.: -</td>
</tr>
<tr>
<td>Chemical: cellulose paper</td>
<td>CAS No.: 9004-34-6</td>
</tr>
</tbody>
</table>

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 inh rat: > 5,800 mg/L/4H

11.2 Other hazards

Possible endocrine disrupting effects

no data available

Other information

no additional data available

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

<table>
<thead>
<tr>
<th>Chemical: PVC foil (CAS 9002-86-2)</th>
<th>CAS No.: -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical: indicator dye(s)</td>
<td>CAS No.: -</td>
</tr>
<tr>
<td>Chemical: cellulose paper</td>
<td>CAS No.: 9004-34-6</td>
</tr>
</tbody>
</table>

Storage class (VCI): 12-13

Water hazard class (DE): nwg

Storage class (VCI): 11

12.2 Persistence and degradability
12.3 Bioaccumulative potential
not necessary

12.4 Mobility in soil
not necessary

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

12.6 Endocrine disrupting properties
no data available

12.7 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 Carriage in bulk by sea in accordance with IMO instruments
Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Dangerous Substances Protection Act (DE: Chemikaliengesetz - ChemG), Aug 2013, Stand: Okt 2020
Ordinance on protection against dangerous substances (E: Gefahrstoffverordnung - GefStoffV), Nov 2010, Stand: Mrz 2017
MN leaflet/instructions for use, also at www.mn-net.com
If necessary, observe other country-specific regulations.

15.2 Chemical safety assessment

SECTION 16: Other information

16.1 Changes compared to the last version
in preparation

16.2 List of H and P phrases

16.2.1 List of relevant H phrases

16.2.2 List of relevant P phrases

16.3 Recommended restriction on use
None

16.4 Sources of key data
KÜHN, BIRETT, Leaflets on hazardous materials, 2021
Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres
SUVA ,CH, limit values in the air at work 2009, revised on 01/2009
Regulation 790/2009/EU, adaptation of Regulation 1272/2008/EG to technical and scientific progress (1st ATP)
Regulation 453/2010/EU, adaptation of the REACH regulation 1907/2006/EG
Regulation 487/2013/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (4th ATP)
Regulation 1221/2015/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (7th ATP)
Regulation 776/2017/EU, adaptation of regulation 1272/2008/EG to technical and scientific progress (10th ATP)
Regulation 669/2018/EU, adaptation of Regulation 1272/2008/EC to technical and scientific progress (11th ATP)
Regulation 1480/2018/EU, adaptation of regulation 1272/2008/EC to technical and scientific progress (13th ATP)
Regulation 1192/2019/EU, adaptation of Regulation 1272/2008/EC to technical and scientific progress (12th ATP)
TRGS 900, German rules of technology on limit values in the air at work, as of 03/2019
Regulation 217/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (14th ATP)
Regulation 878/2020/EU, adaptation of Annex II of the REACH regulation 1907/2006/EG
Regulation 1192/2020/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (15th ATP)
Regulation 643/2021/EU, adaptation of Annex VI, Part 1, of Regulation 1272/2008/EC to technical and scientific progress (16th ATP)
Regulation 849/2021/EU, adaptation of Annex VI, Part 3, of Regulation 1272/2008/EC to technical and scientific progress (17th ATP)

revisions/updates
Reason for revision: 2014-02 Corrected structure of the sections according to Regulation 453/2010/EU, if necessary
2014-04 adjustment according Regulation 487/2013/EU
2016-03 adjustment according Regulation 1221/2015/EU
2017-11 adjustment according the ECHA registration dossier
2022-11 adjustment according Regulation 878/2020/EU

16.5 Further information
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16.6 Legend / Abbreviations
acc: according
ADR: Convention concerning the International Carriage of Dangerous Goods by Road
Ac: acute
BAT: biological workplace tolerance value
CAO: Cargo Aircraft Only
Carc: carcinogen
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging regulation
CMR: carcinogen, mutagen, reproduction toxic
Corr: corrosive
COD: chemical oxygen demand
CSCL: Chemical Substance Control Law (Jp)
Dam: damage
DNEL: Derived No-Effect Level (for workers)
derm: dermal
dog: dog
EC10: Concentration causing a toxic effect in 10% of the test organisms
EC: European Community
EC-Nr: Substance number of the EC substance inventory
EmS: Guide to accident management measures on ships
EU: European Union
fish: fish (not specifed)
GHS: Global Harmonized System of Classification and Labeling of Chemicals
gp: guinea pig
ICAO: International Civil Aviation Organization
in: inhaled
IMDG: International Maritime Dangerous Goods Code
intrav: intravenous
IPT: intraperitoneal
ISHL: Industrial Safety and Health Law (Jp)
16.7 Training advice

Regular safety training. 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.