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

1.1 Product identifier

REF 925015
Product name NANOCONTROL Multistandard Metals 1

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 mL NANOCONTROL Metals 1
1 x 15 mL NANOCONTROL 100+ Metals 1

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
Valencienner 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

30 mL NANOCONTROL Metals 1

Do not need labelling as hazardous
Signal word -

No hazard class

15 mL NANOCONTROL 100+ Metals 1

Do not need labelling as hazardous
Signal word -

No hazard class

2.2 Label elements

30 mL NANOCONTROL Metals 1

Do not need labelling as hazardous
Signal word: -

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FR: Tel.: +33 388 68 22 68 Fax: +33 388 51 76 88 E-mail: sales-fr@mn-net.com
US: Tel.: +1 484 821 0984 Fax: +1 484 821 1272 E-mail: sales-us@mn-net.com

15 mL NANOCONTROL 100+ Metals 1

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

30 mL NANOCONTROL Metals 1

Chemical: *nitric acid* — CAS No.: 7697-37-2
Classification: No criteria for classification or naming of chemical not required.
Formula: $HNO_3 \cdot H_2O$
Pseudonym: Aqua fortis, Engravers acid, hydrogen nitrate
TSCA Inventory: listed
REACH Reg. No.: 01-2119487297-23-xxxx
EC No.: 231-714-2 — Indice No.: 007-004-00-1
RTECS: QU5900000/QU5775000
KE No.: KE-25911, >10% Toxic 97-1-246, Acc. Precaution Chem.
Concentration: < 0.10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *test chemical(s) (ppm)* — CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
TSCA Inventory: all <0.1%
Concentration: 0.01 - <0.1 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

15 mL NANOCONTROL 100+ Metals 1

Chemical: *nitric acid* — CAS No.: 7697-37-2
Classification: No criteria for classification or naming of chemical not required.
Formula: $HNO_3 \cdot H_2O$
Pseudonym: Aqua fortis, Engravers acid, hydrogen nitrate
TSCA Inventory: listed
REACH Reg. No.: 01-2119487297-23-xxxx
EC No.: 231-714-2 — Indice No.: 007-004-00-1
RTECS: QU5900000/QU5775000
KE No.: KE-25911, >10% Toxic 97-1-246, Acc. Precaution Chem.
Concentration: < 0.10 %
acc. CLP (GHS): The criteria for classification are not fulfilled.

Chemical: *test chemical(s) (ppm)* — CAS No.: -
Classification: No criteria for classification or naming of chemical not required.
TSCA Inventory: all <0.1%
Concentration: 0.01 - <0.1 %
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%.

- - -

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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
Not necessary.

4.1.2 After EYE Contact
Not necessary.

4.1.3 After INHALATION of vapours
Not necessary. ---

4.1.4 After ORAL Intake
Not necessary. ---

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

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

Do not breathe vapours. Not necessary.

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):	8B
Water hazard class (DE):	1

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.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

30 mL NANOCONTROL Metals 1

Chemical: *nitric acid* CAS No.: 7697-37-2

DNEL: [inh] (1.3) mg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water) : no hazard identified
PNEC = Predicted No Effected Concentration

EU value: 1 ppm / 2.6 mg/m³
TRGS 900 (DE): 1 ppm / 2,6 mg/m³
E/e respirable

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

SUVA(CH) MAK value: 2 ppm / 5 mg/m³
NIOSH: [TWA] 2 ppm / 5 mg/m³
NIOSH STEL: 4 ppm / 10 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: List of highly hazardous chemicals, toxics and reactives Yes (TQ = 500 lbs) n/a; [TWA] 2 ppm / 5 mg/m³

Chemical: *test chemical(s) (ppm)* CAS No.: -

15 mL NANOCONTROL 100+ Metals 1

Chemical: *nitric acid* CAS No.: 7697-37-2

DNEL: [inh] (1.3) mg/m³
DNEL = Derived No-Effect Level (for workers)

PNEC(fresh water) : no hazard identified
PNEC = Predicted No Effected Concentration

EU value: 1 ppm / 2.6 mg/m³
TRGS 900 (DE): 1 ppm / 2,6 mg/m³
E/e respirable

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

SUVA(CH) MAK value: 2 ppm / 5 mg/m³
NIOSH: [TWA] 2 ppm / 5 mg/m³
NIOSH STEL: 4 ppm / 10 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: List of highly hazardous chemicals, toxics and reactives Yes (TQ = 500 lbs) n/a; [TWA] 2 ppm / 5 mg/m³

Chemical: *test chemical(s) (ppm)* CAS No.: -

8.2 Exposure controls

Not necessary.Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

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

30 mL NANOCONTROL Metals 1

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Appearance: liquid | Colour: colourless | Odor: odorless
pH: 2-3
Specific gravity: 1,0 g/cm³

15 mL NANOCONTROL 100+ Metals 1
Appearance: liquid | Colour: slightly yellow | Odor: odorless
pH: 2-3

9.2 Other information

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.
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. Observe labeled storage temperature. ---

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 toxicological effects

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

30 mL NANOCONTROL Metals 1

Chemical: *nitric acid* CAS No.: 7697-37-2
TSCA Inventory: listed California Proposition 65 List: not listed
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, teeth
Symptoms: irritation eyes, skin, mucous membrane; delayed pulmonary edema, pneumonitis, bronchitis; dental erosion
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: Accident Precaution Chemical Yes
Korea Exist.Chem.Inventory: KE-25911, >10% Toxic 97-1-246, Acc. Precaution Chem.
$LC_Low_{orl\ hmn}$: [NOAEC] 1500 mg/kg
$LC50_{ihl\ rat}$: [4h] 2.65 mg/L

TRGS 905 (DE): R_F D

Chemical: *test chemical(s) (ppm)* CAS No.: -
TSCA Inventory: all <0.1%

15 mL NANOCONTROL 100+ Metals 1

Chemical: *nitric acid* CAS No.: 7697-37-2
TSCA Inventory: listed California Proposition 65 List: not listed
Exposure Routes: inhalation, ingestion, skin and/or eye contact
Target Organs: Eyes, skin, respiratory system, teeth
Symptoms: irritation eyes, skin, mucous membrane; delayed pulmonary edema, pneumonitis, bronchitis; dental

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erosion
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: Accident Precaution Chemical Yes
Korea Exist.Chem.Inventory: KE-25911, >10% Toxic 97-1-246, Acc. Precaution Chem.
$LC_Low_{orl\ hmn}$: [NOAEC] 1500 mg/kg
$LC50_{ihl\ rat}$: [4h] 2.65 mg/L

TRGS 905 (DE): R_F D

Chemical: *test chemical(s) (ppm)* CAS No.: -
TSCA Inventory: all <0.1%

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

30 mL NANOCONTROL Metals 1

Chemical: *nitric acid* CAS No.: 7697-37-2
$PNEC_{(fresh\ water)}$: no hazard identified
PNEC = Predicted No Effected Concentration
$LC50_{daphnia\ magna/48h}$: 180 mg/L
$LC50_{fish/96h}$: [4d] 12 g/L
Water hazard class (DE): 1 WGK No.: 0414
Storage class (VCI): 8 B

Chemical: *test chemical(s) (ppm)* CAS No.: -
Storage class (VCI): 12

15 mL NANOCONTROL 100+ Metals 1

Chemical: *nitric acid* CAS No.: 7697-37-2
$PNEC_{(fresh\ water)}$: no hazard identified
PNEC = Predicted No Effected Concentration
$LC50_{daphnia\ magna/48h}$: 180 mg/L
$LC50_{fish/96h}$: [4d] 12 g/L
Water hazard class (DE): 1 WGK No.: 0414
Storage class (VCI): 8 B

Chemical: *test chemical(s) (ppm)* CAS No.: -
Storage class (VCI): 12

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

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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

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

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