

# Safety Data Sheet

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

REF: 745400.500  
Printing date: 15.11.2021

Protino Ni-NTA Agarose (500 mL)  
Date of issue: 30.07.2018

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

### 1.1 Product identifier

REF 745400.500  
Product name Protino Ni-NTA Agarose (500 mL)  
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 1000 mL Protino® Ni-NTA Agarose (suspension)

### 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

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

### 2.1 Classification of the substance or mixture

1000 mL Protino® Ni-NTA Agarose (suspension)



GHS02 GHS07

Signal word

WARNING

**Hazard identification**

**Hazard classes/categories**

H226  
H317

Flam. Liq. 3  
Skin Sens. 1

### 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** and highly flammable chemicals/mixtures must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2). This labelling exemption is NOT valid for sensibilizing substances.

1000 mL Protino® Ni-NTA Agarose (suspension)



GHS02 GHS07

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Signal word: WARNING

H226, H317

Flammable liquid and vapour. May cause an allergic skin reaction.

P210, P261sh, P280sh

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing dust/vapours. Wear protective gloves/eye protection.

## 2.3 Other hazards

### Possible hazards from physicochemical properties

Flammable properties. Vapour forms explosive mixtures with air. ---

### Information pertaining to particular risks to human and possible symptoms

Cause after skin contact, impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts. -

### Information pertaining to particular risks to the environment

PBT: not applicable

vPvB: not applicable

### Other hazards

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances or 3.2 Mixtures

#### 1000 mL Protino® Ni-NTA Agarose (suspension)

Chemical: *ethanol* (diluted < 20 %)  
(denatured with 1%IPA/1%MEK, acc.2016/1867/EU)

CAS No.: 64-17-5d

Classification: H225, Flam. Liq. 2  
Formula: C<sub>2</sub> H<sub>6</sub> O; C<sub>2</sub> H<sub>5</sub> OH  
Pseudonym: ethyl alcohol, methylated spirit  
TSCA Inventory: listed  
REACH Reg. No.: 01-2119457610-43-xxxx  
EC No.: 200-578-6  
RTECS: KQ6300000  
KE No.: KE-13217  
Concentration: 5 - <20 %  
acc. CLP (GHS): H226, Flam. Liq. 3

Indice No.: 603-002-00-5  
MFCD: 00003568

Chemical: *agarose*

CAS No.: 9012-36-6

Classification: No criteria for classification or naming of chemical not required.  
TSCA Inventory: listed  
EC No.: 232-731-8  
KE No.: KE-00278  
Concentration: 1 - <10 %  
acc. CLP (GHS): The criteria for classification are not fulfilled.

MFCD: 00081294

Chemical: *resin suspension with Ni in nickel(II) complexes*

CAS No.: -

Classification: H302, Acute Tox. 4 oral, H315, Skin Irrit. 2, H317, Skin Sens. 1, H332, Acute Tox. 4 inh., H334, Resp. Sens. 1, H341, Muta. 2, H350i, Carc. 1A, H360, Repr. 1B, H372, STOT RE 1, H410, Aquatic Chronic 1  
Formula: Ni-complex-  
TSCA Inventory: listed (NiSO<sub>4</sub> CAS 7786-81-4)  
REACH Reg. No.: NiSO<sub>4</sub> : 01-2119439361-44-xxxx  
EC No.: 232-104-9 (NiSO<sub>4</sub>)  
RTECS: QR9600000 (NiSO<sub>4</sub>)  
Concentration: 0.038 - <0.38 %  
acc. CLP (GHS): H317, Skin Sens. 1

Indice No.: 028-009-00-5 (NiSO<sub>4</sub>)

### 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

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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. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

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

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. ---

#### 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

May cause sensitization by skin contact, also in repeated contact of small amounts. ---

### 4.3 Indication of any immediate medical attention and special treatment needed

After SKIN CONTACT rinse with water for a long time. Apply glucocorticosteroides following inflammatory reactions. Inform patient respectively further measures and the possibility of long-term damages. ---

## 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

WARNING: Flammable (GHS regulation). May form explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible. ---

### 5.3 Advice for firefighters

No, for listed product. The substance/mixture is flammable. Product package burns like paper or plastic. Cool any undamaged containers in water, and remove from the danger zone if possible. Heating will lead to an increase in pressure, and a danger of bursting. 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

Do not breathe vapours. Wear suitable protective gloves (see 8.2.2). Wear eye protection. Keep product away from sources of ignition - No smoking. 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 ---

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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): 3  
Water hazard class (DE): 2

### 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

#### 1000 mL Protino® Ni-NTA Agarose (suspension)

Chemical: *ethanol*

CAS No.: 64-17-5d

DNEL: [derm] 343 mg/kg; [inh] 950 mg/m<sup>3</sup>  
DNEL = Derived No-Effect Level (for workers)

PNEC<sub>(fresh water)</sub>: 0.96 mg/L  
PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 ppm / 380 mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: 4 (II), Y  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 500 ppm / 960 mg/m<sup>3</sup>

NIOSH: [TWA] 1000 ppm / 1900 mg/m<sup>3</sup>  
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: 1000 ppm / 1900 mg/m<sup>3</sup>

Chemical: *agarose*

CAS No.: 9012-36-6

Chemical: *resin suspension with Ni in nickel(II) complexes*

CAS No.: -

TRGS 900 (DE): - (0,05 eNiSO<sub>4</sub> alt) mg/m<sup>3</sup>  
E/e respirable

Short-term exposure factor: (4)  
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 0,05 eNiSO<sub>4</sub> mg/m<sup>3</sup>

SUVA(CH) BAT value: U/c,b 45 µg/L

NIOSH: Ca TWA 0.015Ni mg/m<sup>3</sup>  
[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period

OSHA: TWA 1 mg/m<sup>3</sup>

### 8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. 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.

#### 8.2.4 Skin protection

Recommended 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.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### 1000 mL Protino® Ni-NTA Agarose (suspension)

Appearance: liquid      Colour: slightly green      Odor: alcoholic  
Flash point: 41 °C  
Particle size: 45-165 µm

### 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**  
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## 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

But avoid reactions with oxidizing agents. No further data available.

### 10.4 Conditions to avoid

Not necessary. But can form explosive gases/vapour with air. Use only in a well-ventilated working areas. ---

### 10.5 Incompatible materials

Avoid contact with strong acids or alkalines. Avoid storage with oxidising substances.

### 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.

#### 1000 mL Protino® Ni-NTA Agarose (suspension)

Chemical: *ethanol*      CAS No.: 64-17-5d  
TSCA Inventory: listed      California Proposition 65 List: not listed  
ACGIH: 1000 ppm  
Exposure Routes: inhalation, ingestion, skin and/or eye contact  
Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system  
Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough;  
liver damage; anemia; reproductive, teratogenic  
Australia NICNAS: not listed      Canada CEPA 1999: DSL yes  
Japan CSCL/PRTR: not listed, Japan PDSC: not listed  
Japan ISHL: listed ≥0,1%/≥0,1%, Article 57-2 (SDS required)  
South Korea TCCA: not listed  
Korea Exist.Chem.Inventory: KE-13217  
LD50<sub>oral rat</sub>: 6200 mg/kg  
LC<sub>50</sub><sub>ihl gpg</sub>: 21.9 g/m<sup>3</sup>  
LC<sub>50</sub><sub>ihl hmn</sub>: 1400 mg/kg  
LC50<sub>ihl mouse</sub>: [4h] 39 g/m<sup>3</sup>  
LC50<sub>ihl rat</sub>: [10h] 20 g/m<sup>3</sup>  
LD50<sub>drm rbt</sub>: 20 000 mg/kg  
LD50<sub>oral mouse</sub>: 3450 mg/kg  
  
TRGS 905 (DE): K5, M5, R<sub>F</sub> C

Chemical: *agarose*      CAS No.: 9012-36-6  
TSCA Inventory: listed  
Korea Exist.Chem.Inventory: KE-00278

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Chemical: *resin suspension with Ni in nickel(II) complexes* CAS No.: -  
TSCA Inventory: listed (NiSO<sub>4</sub> CAS 7786-81-4)  
Exposure Routes: inhalation, ingestion, skin and/or eye contact  
Target Organs: Nasal cavities, lungs, skin; [lung and nasal cancer]  
Symptoms: sensitization dermatitis, allergic asthma, pneumonitis; [potential occupational carcinogen]  
Japan CSCL/PRTR: PRTR: ≥0,1% specific class I, Japan PDSCL: not listed  
Japan ISHL: listed ≥0,1%/≥0,1%,  
LD50<sub>orl rat</sub>: 264NiSO<sub>4</sub> mg/kg  
Acute Effects: Cause after skin contact, impairments of health when ingested in small quantities. May cause sensitization by skin contact, also in repeated contact of small amounts.  
EU carcinogen: carc. 1A, mut. 2, repr. 1B  
TRGS 905 (DE): K1  
TRGS 907 (DE): Sah

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 1000 mL Protino® Ni-NTA Agarose (suspension)

Chemical: *ethanol* CAS No.: 64-17-5d  
PNEC (fresh water): 0.96 mg/L  
PNEC = Predicted No Effect Concentration  
LC50<sub>daphnia magna/48h</sub>: >100 g/L  
LC50<sub>pimephales promelas/96h</sub>: 13.4-15.1 g/L  
LC50<sub>leuciscus idus/96h</sub>: [48h] 8.14 g/L  
LC50<sub>fish/96h</sub>: 13 g/L  
EC50<sub>daphnia/48h</sub>: 9.3-14.2 g/L  
IC50<sub>scenedesmus quadricauda/72h</sub>: [7d] 5000 mg/L  
EC10<sub>pseudomonas putida/16h</sub>: [EC5] 6500 mg/L  
Water hazard class (DE): 1 WGK No.: 0096  
Dispersion coefficient<sub>(octanol-water)</sub>: -0.31  
Storage class (VCI): 3

Chemical: *agarose* CAS No.: 9012-36-6  
Water hazard class (DE): nwg  
Storage class (VCI): 13

Chemical: *resin suspension with Ni in nickel(II) complexes* CAS No.: -  
Water hazard class (DE): 2  
Storage class (VCI): 6.1D

### 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

Normally it is possible to empty small amounts (diluted!) into drains.

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## SECTION 14: Transport information

14.1 - 14.4: No dangerous goods according the transport regulations (Ethanol: ADR SI144/ IATA A58)

### 14.5 Environmental hazards

none, contains only small quantities of hazardous substances

### 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](http://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

H226 Flammable liquid and vapour.  
H317 May cause an allergic skin reaction.

#### 16.1.2 List of relevant P phrases

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P261sh Avoid breathing dust/vapours.  
P280sh Wear protective gloves/eye protection.

### 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/EEC or for DE §§ 11-13 MuSchG 2017)!  
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<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
Regulation 669/2018/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
Regulation 1480/2018/EU, 4<sup>th</sup> adaptation of CLP regulation to technical and scientific progress  
Regulation 849/2021/EU, 4<sup>th</sup> 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  
TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011  
Directive 1999/92/EC Minimum requirements for improving the safety and health protection of workers at risk from potentially explosive

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atmospheres  
KÜHN, BIRETT

Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

## Revisions/Updates

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