

Safety Data Sheet

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

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

1.1 Product identifier

REF 743200.500
 Product name NucleoType Mouse PCR (500)

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 60 mL Buffer M
 1 x 250 µL Liquid Proteinase K
 2 x 1.25 mL NucleoType HotStart PCR Master Mix (2x)

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
 Valenciener 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

60 mL Buffer M

Signal word Do not need labelling as hazardous
 -

No hazard class

250 µL Liquid Proteinase K

Signal word Do not need labelling as hazardous
 -

No hazard class

1.25 mL NucleoType HotStart PCR Master Mix (2x)

Signal word Do not need labelling as hazardous
 -

No hazard class



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2.2 Label elements

60 mL Buffer M

Do not need labelling as hazardous
Signal word: -

250 µL Liquid Proteinase K

Do not need labelling as hazardous
Signal word: -

1.25 mL NucleoType HotStart PCR Master Mix (2x)

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

Kit contains small amounts of enzymes: In liquid form no hazard H334. ---

Information pertaining to particular risks to the environment

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

60 mL Buffer M

Chemical:	<i>polyoxyethylene sorbitan monolaurate (Tween® 20)</i>	CAS No.:	9005-64-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C ₅₈ H ₁₁₄ O ₂₆		
Pseudonym:	Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs.		
TSCA Inventory:	listed		
RTECS:	TR7400000	MFCD:	00165986
KE No.:	KE-31681		
Concentration:	< 0.10 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed, <1%		
KE No.:	listed		
Concentration:	0.1 - <1 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

250 µL Liquid Proteinase K

Chemical:	<i>proteinase K, liquid (origin: tritirachium album)</i>	CAS No.:	39450-01-6l
Classification:	H315, Skin Irrit. 2, H319, Eye Irrit. 2, H334, Resp. Sens. 1		
Formula:	Enzyme Comm. No. 3.4.21.64, origin: tritirachium album		
TSCA Inventory:	listed (CAS 102925-54-2)		
EC No.:	254-457-8	Indice No.:	647-014-00-9
RTECS:	-	MFCD:	00132129
KE No.:	not listed		
Concentration:	1 - <3 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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Chemical:	<i>glycerole</i>	CAS No.:	56-81-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	$C_3H_8O_3$		
Pseudonym:	glycerin, 1,2,3-propanetriol		
TSCA Inventory:	listed (1,2,3-Propanetriol)		
REACH Reg. No.:	01-2119471987-18-xxxx		
EC No.:	200-289-5	Indice No.:	n/a
RTECS:	MA8050000	MFCD:	00004722
KE No.:	KE-29297		
Concentration:	50 - <80 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

1.25 mL NucleoType HotStart PCR Master Mix (2x)

Chemical:	<i>dimethyl sulfoxide</i>	CAS No.:	67-68-5
Classification:	No criteria for classification or naming of chemical not required.		
Formula:	C_2H_6OS		
Pseudonym:	DMSO, 1,1'-sulfinylbis-methane		
TSCA Inventory:	listed		
REACH Reg. No.:	01-2119431362-50-xxxx		
EC No.:	200-664-3		
RTECS:	PV6210000	MFCD:	00002089
KE No.:	KE-32367		
Concentration:	10 - <20 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

Chemical:	<i>chemicals/mixture < 1%</i>	CAS No.:	-
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	all listed, <1%		
KE No.:	listed		
Concentration:	0.1 - <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%.

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.

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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): 10
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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

60 mL Buffer M

Chemical: polyoxyethylene sorbitan monolaurate (Tween® 20)

CAS No.: 9005-64-5

Chemical: chemicals/mixture < 1%

CAS No.: -

250 µL Liquid Proteinase K

Chemical: proteinase K, liquid (origin: tritirachium album)

CAS No.: 39450-01-61

SUVA(CH) MAK value: 0,00006_{15min} mg/m³

Chemical: glycerole

CAS No.: 56-81-5

DNEL: [inh] 56 mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 0.885 mg/L

PNEC = Predicted No Effect Concentration

TRGS 900 (DE): 200 E mg/m³

E/e respirable

Short-term exposure factor: 2 (I), Y

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

SUVA(CH) MAK value: 50 e* mg/m³

1.25 mL NucleoType HotStart PCR Master Mix (2x)

Chemical: dimethyl sulfoxide

CAS No.: 67-68-5

DNEL: 394_{inh} mg/m³

DNEL = Derived No-Effect Level (for workers)

PNEC_(fresh water): 17 mg/L

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PNEC = Predicted No Effect Concentration
 TRGS 900 (DE): 50 ppm / 160 mg/m³
 E/e respirable
 Short-term exposure factor: 2 (I), H, Z
 skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded
 SUVA(CH) MAK value: 50 ppm / 160 mg/m³
 Chemical: *chemicals/mixture* < 1% 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

60 mL Buffer M

Appearance: liquid Colour: colourless Odor: odorless
 pH: 8.5-9.5

250 µL Liquid Proteinase K

Appearance: liquid Colour: colourless Odor: odorless
 pH: 7-8
 Specific gravity: 1.1 g/cm³
 Solubility in water: 0-100 %

1.25 mL NucleoType HotStart PCR Master Mix (2x)

Appearance: liquid Colour: colourless Odor: odorless

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. ---

10.5 Incompatible materials

Not known.

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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.

60 mL Buffer M

Chemical: *polyoxyethylene sorbitan monolaurate (Tween® 20)* CAS No.: 9005-64-5
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-31681

Chemical: *chemicals/mixture < 1%* CAS No.: -
 TSCA Inventory: all listed, <1%
 Korea Exist.Chem.Inventory: listed

250 µL Liquid Proteinase K

Chemical: *proteinase K, liquid (origin: tritirachium album)* CAS No.: 39450-01-61
 TSCA Inventory: listed (CAS 102925-54-2)
 Japan CSCL/PRTR: not listed
 Japan ISHL: not listed
 Korea Exist.Chem.Inventory: not listed

Chemical: *glycerole* CAS No.: 56-81-5
 TSCA Inventory: listed (1,2,3-Propanetriol)
 Exposure Routes: inhalation, skin and/or eye contact
 Target Organs: Eyes, skin, respiratory system, kidneys
 Symptoms: irritation eyes, skin, respiratory system; headache, nausea, vomiting; kidney injury
 Japan CSCL/PRTR: not listed, Japan PDSCCL: not listed
 Japan ISHL: not listed
 Korea Exist.Chem.Inventory: KE-29297
 LD50_{orl rat}: 12.6 g/kg
 LD50_{drm rbt}: >18.7 g/kg
 TRGS 905 (DE): R_F C

1.25 mL NucleoType HotStart PCR Master Mix (2x)

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5
 TSCA Inventory: listed
 Korea Exist.Chem.Inventory: KE-32367
 LD50_{orl rat}: 14.5 g/kg
 LD50_{drm rat}: 40 g/kg

Chemical: *chemicals/mixture < 1%* CAS No.: -
 TSCA Inventory: all listed, <1%
 Korea Exist.Chem.Inventory: listed

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

60 mL Buffer M

Chemical: *polyoxyethylene sorbitan monolaurate (Tween® 20)* CAS No.: 9005-64-5
 Water hazard class (DE): 1
 Storage class (VCI): 10-11

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Chemical: *chemicals/mixture < 1%* CAS No.: -
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

250 µL Liquid Proteinase K

Chemical: *proteinase K, liquid (origin: tritirachium album)* CAS No.: 39450-01-61
 Water hazard class (DE): 1
 Storage class (VCI): 13

Chemical: *glycerole* CAS No.: 56-81-5
 PNEC_(fresh water) : 0.885 mg/L
 PNEC = Predicted No Effected Concentration
 LC50_{fish/96h} : >5000_{24h} mg/L
 EC50_{daphnia/48h} : >10_{24h} g/L
 IC50_{scenedesmus quadricauda/72h} : IC50_{7d} >10 g/L
 EC10_{pseudomonas putita/16h} : EC5 : >10 g/L
 Water hazard class (DE): 0
 Dispersion coefficient_(octanol-water) : -1.76
 Storage class (VCI): 10

1.25 mL NucleoType HotStart PCR Master Mix (2x)

Chemical: *dimethyl sulfoxide* CAS No.: 67-68-5
 PNEC_(fresh water) : 17 mg/L
 PNEC = Predicted No Effected Concentration
 LC50_{fish/96h} : 38.5 g/L
 EC50_{daphnia/48h} : 24.6 g/L
 EC10_{pseudomonas putita/16h} : EC/16h: 7100 mg/L
 Water hazard class (DE): 1 WGK No.: 5050
 Dispersion coefficient_(octanol-water) : -1.35
 Storage class (VCI): 12

Chemical: *chemicals/mixture < 1%* CAS No.: -
 Water hazard class (DE): 1
 Storage class (VCI): 12-13

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

SECTION 14: Transport information

14.1 - 14.4 Not necessary

14.5 Environmental hazards

none



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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
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
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