IACHEREY-NAGEI



Safety Data Sheet

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

REF: 744210.1	NucleoMag Pathogen (1x96)	Page: 1/19
Printing date: 12.05.2021	Date of issue: 28.08.2020	

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

1.1 **Product identifier**

REF Product name 744210.1 NucleoMag Pathogen (1x96)

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 2.5 mL B-Beads 1 x 500 µL Carrier RNA Buffer 1 x 0.09-1.0 mg Carrier RNA 1 x 110 mL NPB2 1 x 30 mL NPE5 1 x 30 mL NPL1 1 x 75 mL NPW3 1 x 75 mL NPW4 1 x 8 mL PB 1 x 75 mg Proteinase K (lyo)

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

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service. 99089 Erfurt tel. +49 361 730 730 DE: Gemeinsames Giftinformationszentrum (GGIZ)

You find our current versions of SDS (22 languages) in Internet:

SECTION 2: Hazard identification

Signal word

2.0 Classification of the complete product



GHS02



DANGER

Hazard identification	Hazard classes/categories
H226	Flam. Liq. 3
H302	Acute Tox. 4 oral
H315	Skin Irrit. 2
H319	Eye Irrit. 2
H334	Resp. Sens. 1
H412	Aquatic Chronic 3



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.1	Classification of the substa	ince or mixture		
	2.5 mL B-Beads			
	Signal word	Do not need labelling as hazardous -		
	No hazard class			
	500 μL Carrier RNA Buffer			
		\wedge		
		GHS07		
	Signal word	WARNING		
	Hazard identification	Hazard classes/categories		
	H302 H412	Acute Tox. 4 oral Aquatic Chronic 3		
	0.09-1.0 mg Carrier RNA			
	Signal word	Do not need labelling as hazardous -		
	No hazard class			
	110 mL NPB2			
		GHS02 GHS07		
	Signal word	WARNING		
	Hazard identification H226	Hazard classes/categories Flam. Liq. 3		
	H302	Acute Tox. 4 oral		
	30 mL NPE5			
	Signal word	Do not need labelling as hazardous -		
	No hazard class			
	30 mL NPL1			
		^		
		GHS07		
	Signal word	WARNING		
	Hazard identification	Hazard classes/categories		
	H302 H319	Acute Tox. 4 oral Eye Irrit. 2		

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75 mL NPW3		
	GHS02 GHS07	
Signal word	WARNING	
Hazard identification	Hazard classes/categories	
H226 H302	Flam. Liq. 3 Acute Tox. 4 oral	
75 mL NPW4		
	GHS02 GHS07	
Signal word	WARNING	
Hazard identification	Hazard classes/categories	
H226 H302	Flam. Liq. 3 Acute Tox. 4 oral	
8 mL PB		
Signal word	Do not need labelling as hazardous -	
No hazard class		
75 mg Proteinase K (Iyo)		
	GHS07 GHS08	
Signal word	DANGER	
Hazard identification	Hazard classes/categories	
H315 H319 H334	Skin Irrit. 2 Eye Irrit. 2 Resp. Sens. 1	
2 Label elements		

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.

2.5 mL B-Beads

Do not need labelling as hazardous Signal word: -



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500 µL Carrier RNA Buffer



Signal word: WARNING

H412 Harmful to aquatic life with long lasting effects.

0.09-1.0 mg Carrier RNA

Do not need labelling as hazardous Signal word: -

110 mL NPB2



Signal word: WARNING

30 mL NPE5

Do not need labelling as hazardous Signal word: -

30 mL NPL1



Signal word: WARNING

75 mL NPW3



Signal word: WARNING

75 mL NPW4



Signal word: WARNING

8 mL PB

Do not need labelling as hazardous Signal word: -

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75 mg Proteinase K (Iyo)



GHS08 GHS07

Signal word: DANGER

H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

P261sh, P342+311 Avoid breathing dust/vapours. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

2.3 Other hazards

Possible hazards from physicochemical properties

In the case of pH values are less than 5 or higher than 9 then it is irritant. Flammable properties. For guanidine thiocyanate CAS 593-84-0. The properties H314, H332 "Causes severe skin burns and eye damage. Harmful if inhaled." are not relevant, because the mixture solution is buffered to pH 4-9 (see GHS Directive 1272/2008/EC Annex I, chapter 3.2.3.1.2.). ---

Information pertaining to particular risks to human and possible symptoms

Cause after oral intake, impairments of health when ingested in small quantities. Kit contains small amounts of enzymes: May cause allergy or asthma symptoms or breathing difficulties if inhaled. -

Information pertaining to particular risks to the environment

Harmful to aquatic life with long lasting effects. Avoid contact of substance/mixture to environment. DRT not applicable

	not applicable
vPvB:	not applicable

Other hazards

SECTION 3: Composition/information on ingredients

3.1 Substances or 3.2 Mixtures

2.5 mL B-Beads

Chemical: magr	netic particles, suspended in water	CAS No.: -	
Classification:	No criteria for classification or naming of chemical not required.		
TSCA Inventory:	listed (CAS 1309-38-2)		
Concentration:	1 - <15 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		

500 µL Carrier RNA Buffer

guanidinium thiocyanate Chemical: CAS No.: 593-84-0 H302, Acute Tox. 4 oral, H312, Acute Tox. 4 derm., H314, Skin Corr. 1B, H332, Acute Tox. 4 inh., Classification: H412, Aquatic Chronic 3 Formula: $C_2\,H_6\,N_4\,S$ Pseudonym: guanidine rhodanide TSCA Inventory: listed REACH Reg. No .: 01-2120735072-65-0001 EC No .: 615-004-00-3 209-812-1 Indice No .: RTECS: XL1225000 MFCD: 00013027 not listed KE No .: Concentration: 30 - <45 % acc. CLP (GHS): H302, Acute Tox. 4 oral, H412, Aquatic Chronic 3

0.09-1.0 mg Carrier RNA

-1.0	Ing Carrier KiNA			
	Chemical: carrie	r RNA		CAS No.: 26763-19-6
	Classification:	No criteria for classification or naming of che	emical not required.	
	TSCA Inventory:	listed (CAS 9001-99-4)	·	
	RTECS:	-	MFCD:	00131937
	KE No.:	KE-30341		
	Concentration:	90 - <100 %		
	acc. CLP (GHS):	The criteria for classification are not fulfilled.		

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REF: 744210.		14	NucleoMag Patho			Page: 6/
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	110 mL					
		Chemical: ethan	<i>ol</i> atured with 1%IPA/1%MEK, acc.2		CAS No.: 64-17-5	
		Classification:	H225, Flam. Liq. 2	1010/100//EU)		
		Formula:	$C_2 H_6 O; C_2 H_5 OH$			
		Pseudonym:	ethyl alcohol, methylated spirit			
		TSCA Inventory:	listed			
		REACH Reg. No.:	01-2119457610-43-xxxx	Lo Ree Ma	000 000 00 F	
		EC No.: RTECS:	200-578-6 KQ6300000	Indice No.: MFCD:	603-002-00-5 00003568	
		KE No.:	KE-13217	WIFCD.	00003308	
		Concentration:	35 - <55 %			
		acc. CLP (GHS):	H226, Flam. Liq. 3			
		Chemical: sodiu	m perchlorate		CAS No.: 7601-89-0	
		Classification:	H271, Ox. Sol. 1, H302, Acute	Tox. 4 oral		
		Formula:	NaClO ₄			
		TSCA Inventory: REACH Reg. No.:	listed 01-2119540521-50-xxxx			
		EC No.:	231-511-9	Indice No.:	017-010-00-6	
		RTECS:	SC9800000	MFCD:	-	
		KE No.:	KE-31569			
		Concentration:	15 - <40 %			
		acc. CLP (GHS):	H302, Acute Tox. 4 oral			
	30 mL N	PE5				
			icals/mixture < 1%		CAS No.: -	
		Classification: TSCA Inventory:	No criteria for classification or naming all listed, <1%	of chemical not required.		
		KE No.:	listed			
		Concentration:	0.1 - <1 %	1 211 - 1		
		acc. CLP (GHS):	The criteria for classification are not ful	filled.		
	30 mL N		d'a charachteachteachte		040 No. 50 04 4	
		Chemical: guani Classification:	dine hydrochloride H302, Acute Tox. 4 oral, H315	Skin Irrit 2 4310 Evo Ir	CAS No.: 50-01-1	
		Formula:	$CH_6 CIN_3$, Skill illit. 2, 11519, Eye il	nt. Z	
		Pseudonym:	guanidinium chloride			
		TSCA Inventory:	listed			
		REACH Reg. No.:	01-2119977063-35-0005			
		EC No.:	200-002-3	Indice No.:	607-148-00-0	
		RTECS: KE No.:	MF4300000 KE-18111	MFCD:	00013026	
		Concentration:	36 - <50 %			
		acc. CLP (GHS):	H302, Acute Tox. 4 oral, H319	, Eye Irrit. 2		
			xyethylene sorbitan monolaurate	, ,	CAS No.: 9005-64-5	
		Classification:	No criteria for classification or naming	of chemical not required.		
		Formula: Pseudonym:	C ₅₈ H ₁₁₄ O ₂₆ Sorbitan, monododecanoate, p	oly(ovy_1.2_otherediv)) de	arive	
		TSCA Inventory:	listed	ory(oxy-r,z-ethaneuryl) de	51193.	
		RTECS:	TR7400000	MFCD:	00165986	
		KE No.:	KE-31681			
		Concentration:	10 - <20 %			
		acc. CLP (GHS):	The criteria for classification are not ful	filled.		

75 mL NPW3



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			040 No. 04 47 5	
Chemical: etha	ano/ natured with 1%IPA/1%MEK, acc.2016	(1867/ELI)	CAS No.: 64-17-5	
Classification:	H225, Flam. Liq. 2	1007/20)		
Formula:	$C_2 H_6 O; C_2 H_5 OH$			
Pseudonym:	ethyl alcohol, methylated spirit			
TSCA Inventory:	listed			
REACH Reg. No.:				
EC No.:	200-578-6	Indice No .:	603-002-00-5	
RTECS:	KQ6300000	MFCD:	00003568	
KE No.:	KE-13217	MI 02.	0000000	
Concentration:	20 - <35 %			
acc. CLP (GHS):	H226, Flam. Liq. 3			
	ium perchlorate		CAS No.: 7601-89-0	
Classification:	H271, Ox. Sol. 1, H302, Acute Tox.	4 oral		
Formula:	NaClO ₄			
TSCA Inventory:				
REACH Reg. No.:		Indian No.	017 010 00 0	
EC No.:	231-511-9	Indice No.:	017-010-00-6	
RTECS:	SC9800000	MFCD:	-	
KE No.: Concentration:	KE-31569 15 - <40 %			
acc. CLP (GHS):	H302, Acute Tox. 4 oral			
	1002, 70000 102. 4 0101			
75 mL NPW4				
Chemical: etha	anol		CAS No.: 64-17-5	
	natured with 1%IPA/1%MEK, acc.2016	/1867/EU)		
Classification:	H225, Flam. Liq. 2			
Formula:	C ₂ H ₆ O; C ₂ H ₅ OH			
Pseudonym:	ethyl alcohol, methylated spirit			
TSCA Inventory:	listed			
REACH Reg. No.:				
EC No.:	200-578-6	Indice No.:	603-002-00-5	
RTECS:	KQ6300000	MFCD:	00003568	
KE No.:	KE-13217			
Concentration: acc. CLP (GHS):	20 - <35 % H226, Flam. Liq. 3			
	ium perchlorate	4	CAS No.: 7601-89-0	
Classification:	H271, Ox. Sol. 1, H302, Acute Tox.	4 orai		
Formula:	NaClO ₄			
TSCA Inventory:	listed			
REACH Reg. No.:		Indice No.:	017 010 00 6	
EC No.: RTECS	231-511-9 SC9800000		017-010-00-6	
RTECS: KE No.:	SC9800000 KE-31569	MFCD:	-	
Concentration:	15 - <40 %			
acc. CLP (GHS):	H302, Acute Tox. 4 oral			
8 mL PB			040 No . 50 04 5	
Chemical: <i>glyc</i> Classification:	erole	migal patro	CAS No.: 56-81-5	
Formula:	No criteria for classification or naming of che $C_3 H_8 O_3$	mical not required.		
Pseudonym:	glycerin, 1,2,3-propanetriol			
TSCA Inventory:	listed (1,2,3-Propanetriol)			
REACH Reg. No.:				
EC No.:	200-289-5	Indice No .:	n/a	
RTECS:	MA8050000	MFCD:	00004722	
KE No.:	KE-29297			
Concentration:	10 - <50 %			
acc. CLP (GHS):	The criteria for classification are not fulfilled.			
75 mg Proteinase K (Iyo)				
C (.)-)				



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Chemical: אמ	oteinase K (origin: tritirachium	album)	CAS No.: 39450-01-6	
Classification:		, Eye Irrit. 2, H334, Resp. Sei	ns. 1	
Formula:	Enzyme Comm. No. 3.4	.21.64, origin: tritirachium album		
TSCA Inventory	listed (CAS 102925-54-2	2)		
EC No.:	254-457-8	Indice No.:	647-014-00-9	
RTECS:	-	MFCD:	00132129	
KE No.:	not listed			
Concentration:	90 - <100 %			
acc. CLP (GHS)	: H315, Skin Irrit. 2, H319	, Eye Irrit. 2, H334, Resp. Sei	ns. 1	

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

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. Take to a doctor, in a raised position if there are breathing difficulties.

4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

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. Administer a Dexamethasone spray as soon as possible. Ensure quiet, warmth, and provide resuscitation if necessary. In the event of respiratory distress ensure that the patient inhales oxygen. Secure the breathing, heart and circulatory function. ---

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

Chronic Effects: May cause sensitization by skin contact, also in repeated contact of small amounts. May cause allergy or asthma symptoms or breathing difficulties if inhaled. ---

4.3 Indication of any immediate medical attention and special treatment needed

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. 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. Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions. Restrictions on activity must be observed.

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6.2	Environmental precautio			
	-	all amounts of these substances		
6.3		r containment and cleaning u	•	
	Clean any contaminated equipm	ert absorbent. And dispose in accordance ent and floors with plenty of water.	e to local regulations for the disposal	of hazardous chemicals.
6.4	Reference to other secti	liquid and flush with water into drains.		
0.4		0115		
SECT	FION 7: Handling and s	torage		
7.1	Precautions for safe har Handling in accordance with the	test instruction, that comes with the pro	duct. Use only in well-ventilated worki	ng areas.
7.2	-	age, including any incompatik	•	-
	The original product package of Storage class (VCI):	MACHEREY-NAGEL allows a safe stor 3	age.	
	Water hazard class (DE):	3		
7.2.1	Requirements for stock rock rock rock rock rock rock rock r	ooms and containers ages tightly closed during handling and s	storage.	
7.3	Specific end use(s)		J	
	Product for analytical use.			
	ION 8: Exposure cont	rols/personal protection		
8.1	Control parameters			
	2.5 mL B-Beads Chemical: <i>magnetic par</i>	ticles, suspended in water	CAS No.: -	
	500 µL Carrier RNA Buffer		CAC No 502 0	4.0
	Chemical: guanidinium DNEL:	[inh] 1092 µg/m ³	CAS No.: 593-8	4-0
	DNEL = Derived No-Effect PNEC(fresh water) :	42.4 µg/L		
	PNEC = Predicted No Eff	ected Concentration not listed		
		arage to a reference period of 8 hours, [STEL] Sho not listed	ort-term exposure limit related to a 15-minute pe	eriod
	0.09-1.0 mg Carrier RNA Chemical: carrier RNA		CAS No.: 26763	3-19-6
	110 mL NPB2			_
	Chemical: <i>ethanol</i> DNEL:	[derm] 343 mg/kg; [inh] 950 mg/m³	CAS No.: 64-17	-5
	DNEL = Derived No-Effect PNEC(fresh water) :	ct Level (for workers)		
	PNEC _(fresh water) : PNEC = Predicted No Eff TRGS 900 (DE):	ected Concentration 200 mL/m ³ / 380 mg/m ³		
	Short-term exposure factor:	E/e respirable		
	skin resorptive (H), resp	iratory sensitizable (Sa), skin sensitizable (Sh), te	ratogenic (Z) not securely excluded / (Y) certain	ly excluded
	SUVA(CH) MAK value: NIOSH:	500 ppm / 960 mg/m ³ [TWA] 1000 ppm / 1900 mg/m ³		
	[TWA] Time-weighted ave OSHA:	erage to a reference period of 8 hours, [STEL] Sho [TWA] 1000 ppm / 1900 mg/m ³	prr-term exposure limit related to a 15-minute pe	eriod
	Chemical: sodium perch		CAS No.: 7601-	89-0
	DNEL: DNEL = Derived No-Effect	[derm] 2.16 mg/kg bw/day; [inh] 0.28 ct Level (for workers)	my/m	
	TRGS 900 (DE):	- E/e respirable		
	NIOSH:	not listed		www.mn-nei
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REF: 744210.1		NucleoMag Pathogen (1x9	6)	Page: 10/
Printing date: 12.05.2021		Date of issue: 28.08.2020		
^[TWA] OSHA:		a reference period of 8 hours, [STEL] Short-terr listed	n exposure limit related to a 15-minute period	
30 mL NPE Chemical:	5 chemicals/mixture <	< 1%	CAS No.: -	
30 mL NPL Chemical: DNEL: DNEL	guanidine hydrochl] 3.5 mg/m³	CAS No.: 50-01-1	
NIOSH:		Concentration listed a reference period of 8 hours, [STEL] Short-terr	n exposure limit related to a 15-minute period	
OSHA:	not	listed		
Chemical:	polyoxyethylene so	rbitan monolaurate (Tween® 20)	CAS No.: 9005-64-5	
75 mL NPW Chemical: DNEL: DNEL	ethanol	m] 343 mg/kg; [inh] 950 mg/m³ (for workers)	CAS No.: 64-17-5	
PNEC _{(fresh v} PNEC	vater) : 0.96 = Predicted No Effected C	S mg/L Concentration		
TRGS 900 (DE): 200	mL/m³ / 380 mg/m³ respirable		
	exposure factor: 4 (II esorptive (H), respiratory s		nic (Z) not securely excluded / (Y) certainly excluded	
SUVA(CH) I NIOSH: [TWA]	[TW	ppm / 960 mg/m³ /A] 1000 ppm / 1900 mg/m³ a reference period of 8 hours, [STEL] Short-terr	n exposure limit related to a 15-minute period	
OSHA:	[TW	'A] 1000 ppm / 1900 mg/m³		
Chemical: DNEL: DNEL TRGS 900 (= Derived No-Effect Level	m] 2.16 mg/kg bw/day, [inh] 0.28 mg/m	CAS No.: 7601-89-0 1 ³	
NIOSH:	É/e i not	respirable listed • a reference period of 8 hours, [STEL] Short-terr	n exposure limit related to a 15-minute period	
OSHA:	not	listed		
75 mL NPW Chemical: DNEL: DNEL	ethanol	m] 343 mg/kg; [inh] 950 mg/m³ (for workers)	CAS No.: 64-17-5	
PNEC _{(fresh v} PNEC TRGS 900 (vater): 0.96 = Predicted No Effected C	5 mg/L concentration mL/m ³ / 380 mg/m ³		
,		respirable		
	esorptive (H), respiratory s MAK value: 500		nic (Z) not securely excluded / (Y) certainly excluded	
	Time-weighted average to	a reference period of 8 hours, [STEL] Short-terr /A] 1000 ppm / 1900 mg/m³	n exposure limit related to a 15-minute period	
Chemical: DNEL: DNEL	sodium perchlorate	m] 2.16 mg/kg bw/day; [inh] 0.28 mg/m	CAS No.: 7601-89-0	
TRGS 900 (DE): -	respirable		
NIOSH: [TWA] OSHA:	not Time-weighted average to	, a reference period of 8 hours, [STEL] Short-terr listed	n exposure limit related to a 15-minute period	



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 Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities level of cleanliness must be maintained at the workplace. 8.2.1 Respiratory protection Use for open access of these substances for example a protection filter, class A/AX. No additional recommendation 8.2.2 Hand protection Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (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 	Page: 11/1
 Chemical: glycerole [inh] 56 mg/m³ DNEL: DNEL: Derived No-Effect Level (for workers) PNEC(tresh water): 0.885 mg/L PNEC = Predicted No Effect Level (for workers) PNEC (tresh water): 0.885 mg/L PNEC = Predicted No Effect Level (for workers) 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 75 mg Proteinase K (lyo) Chemical: proteinase K (origin: tritirachium album) Chemical: proteinase K (origin: tritirachium album) CAS No.: 39450-01-6 SUVA(CH) MAK value: 0,0000615min mg/m³ 8.2 Exposure controls Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities level of cleanliness must be maintained at the workplace. 8.2.1 Respiratory protection Use for open access of these substances for example a protection filter, class A/AX. No additional recommendation 8.2.2 Hand protection Use for open access of these substances for example a protection filter, class A/AX. No additional recommendation 8.2.3 Eye protection Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (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 	
 PNEC_{(tresh water}): 0.885 mg/L PNEC = Predicted No Effected Concentration TRGS 900 (DE): 200 E mg/m³ E/e respirable Short-term exposure factor: 2 (1), 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 75 mg Proteinase K (lyo) Chemical: proteinase K (origin: tritirachium album) CAS No.: 39450-01-6 SUVA(CH) MAK value: 0,00006_{15min} mg/m³ 8.2 Exposure controls Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities level of cleanliness must be maintained at the workplace. 8.2.1 Respiratory protection Use for open access of these substances for example a protection filter, class A/AX. No additional recommendation 8.2.2 Hand protection Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (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 	
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 75 mg Proteinase K (lyo) CAS No.: 39450-01-6 SUVA(CH) MAK value: 0,0000615min mg/m³ 8.2 Exposure controls Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities level of cleanliness must be maintained at the workplace. 8.2.1 Respiratory protection Use for open access of these substances for example a protection filter, class A/AX. No additional recommendation 8.2.2 Hand protection Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (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 Substances for example.	
 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 75 mg Proteinase K (lyo) Chemical: proteinase K (origin: tritirachium album) SUVA(CH) MAK value: 0,0000615min mg/m³ 8.2 Exposure controls Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities level of cleanliness must be maintained at the workplace. 8.2.1 Respiratory protection Use for open access of these substances for example a protection filter, class A/AX. No additional recommendation 8.2.2 Hand protection Ves, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (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 	
 75 mg Proteinase K (lyo) Chemical: proteinase K (origin: tritirachium album) SUVA(CH) MAK value: 0,00006_{15min} mg/m³ 8.2 Exposure controls Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities level of cleanliness must be maintained at the workplace. 8.2.1 Respiratory protection Use for open access of these substances for example a protection filter, class A/AX. No additional recommendation 8.2.2 Hand protection Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (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 	
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Recommended to avoid contamination with these hazards.8.2.5 Personal hygiene	
Personal hygiene Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contac 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.	
SECTION 9: Physical and chemical properties	
9.1 Information on basic physical and chemical properties	

2.5 mL B-Beads Appearance: liquid	Colour: colourless	Odor: odorless
500 μL Carrier RNA Buffer Appearance: liquid pH: Specific gravity:	Colour: colourless 5.5-6 1.08 g/cm³	Odor: fusty, mouldy
0.09-1.0 mg Carrier RNA Appearance: solid (lyoph.)	Colour: colourless	Odor: odorless
110 mL NPB2 Appearance: liquid pH: Boiling point: Flash point:	Colour: colourless 5-6 83,6 °C 24 °C	Odor: alcoholic
30 mL NPE5 Appearance: liquid pH: Specific gravity:	Colour: colourless 8-9 1.0 g/cm³	Odor: odorless



30 mL NPL1

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REF: 744210.1	NucleoMag Pathoge	n (1x96)	Page: 12/19
Printing date: 12.05.2021	Date of issue: 28.08.	2020	
Appearance: liquid pH: Specific gravity:	Colour: slightly yellow 3.5-4 1.15 g/cm³	Odor: odorless	
75 mL NPW3 Appearance: liquid pH: Boiling point: Flash point: Specific gravity:	Colour: colourless 4.5-5.5 83,6 °C 26 °C 1.06 g/cm ³	Odor: alcoholic	
75 mL NPW4 Appearance: liquid pH: Boiling point: Flash point: Specific gravity:	Colour: colourless 4.5-5.5 83,6 °C 26 °C 1.06 g/cm³	Odor: alcoholic	
8 mL PB Appearance: liquid Specific gravity:	Colour: colourless 1.11 g/cm³	Odor: alcoholic	
75 mg Proteinase K (Iyo) Appearance: solid (Iyoph.)	Colour: slightly grey	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

no further data available.

- 10.2 **Chemical stability** No known instability.
- 10.3 Possibility of hazardous reactions Note: Can form very reactive substances with oxidizing agents. Possible: Contact with acids liberates toxic gas. No further data available.
- 10.4 Conditions to avoid

Not necessary. ---10.5 Incompatible materials

Avoid contact with strong acids or alkalines.

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.

2.5 mL B-Beads Chei

TSC

emical:	magnetic particles, suspended in water	CAS No.: -
CA Inventory:	listed (CAS 1309-38-2)	

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ting date: 12.05.2021	Da	te of issue: 28.08.2020	
500 µL Carrier RN	A Buffer		
Chemical:		CAS No.: 5	03 84 0
TSCA Inventory:	<i>guanidinium thiocyanate</i> listed	CAS No.: C California Proposition 65 List: not listed	93-84-0
Australia NICNAS:	not listed	Canada CEPA 1999: DSL yes	
Japan CSCL/PRTR			
Japan ISHL:	not listed		
South Korea TCCA			
Korea Exist.Chem.I	nventory: not listed		
LD50 _{orl rat} :	593 mg/kg		
LC50 _{drm rbt} :	>2000 mg/m ³		
LC50 _{ihl rat}	[4h] 5.319 mg/L		
LD50 _{ipr mus} : Acuto Effecto: Cour	300 mg/kg	nts of health when ingested in small quantities.	
Acute Effects. Caus	se aller orar make, impairme	his of health when ingested in small quantities.	
0.09-1.0 mg Carrie	er RNA		
Chemical:	carrier RNA	CAS No.: 2	6763-19-6
TSCA Inventory:	listed (CAS 9001-9		
Japan CSCL/PRTR			
Japan ISHL:	not listed		
	nventory: KE-30341		
110 mL NPB2	- (1		
Chemical:	<i>ethanol</i> listed	CAS No.: 6 California Proposition 65 List: not listed	4-17-0
TSCA Inventory: ACGIH:	1000 ppm	Camornia Froposition 03 List. Not listed	
Exposure Routes:		on, skin and/or eye contact	
Target Organs:		tory system, central nervous system, liver, blood, re	productive system
Symptoms:		n, nose; headache, drowsiness, lassitude (weakness	
	nia; reproductive, teratogenic		, ,,, , ,
Australia NICNAS:	not listed	Canada CEPA 1999: DSL yes	
Japan CSCL/PRTR			
Japan ISHL:		Article 57-2 (SDS required)	
South Korea TCCA			
LD50 _{orl rat} :	nventory: KE-13217 6200 mg/kg		
LD50orl rat . LC LOWihl apg :	21.9 g/m ³		
LC_LOWINI gpg : LC LOWorl hmn :	1400 mg/kg		
LC50 _{ihl mouse} :	[4h] 39 g/m ³		
LC50 _{ihl rat} :	[10h] 20 g/m ³		
LD50 _{drm rbt} :	20 000 mg/kg		
LD50 _{oral mouse} :	3450 mg/kg		
TRGS 905 (DE):	K5, M5, R _F C		
Chemical:	sodium perchlorate	CAS No.: 7	601-89-0
TSCA Inventory:	listed	California Proposition 65 List: not listed	
Australia NICNAS:	not listed	Canada CEPA 1999: DSL Yes	
Japan CSCL/PRTR	· · · · ·	DSCL: not listed	
Japan ISHL:	not listed		
South Korea TCCA	: not listed nventory: KE-31569		
	2100 mg/kg		
LD50 _{orl rat} : LD50 _{ipr mus} :	551 mg/kg		
		nts of health when ingested in small quantities.	
30 mL NPE5			
Chemical:	chemicals/mixture < 1%	CAS No.: -	
	all listed, <1%		
TSCA Inventory:			



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REF: 744210. Printing date:				oMag Pathogen (1x96) of issue: 28.08.2020		Page: 14
T finding date.	12.03.2021		Date C	113506. 20.00.2020		
30	mL NPL1					
	Chemical:	guanid	ine hydrochloride	California Dran asitism CE List		AS No.: 50-01-1
	TSCA Inventory:		listed	California Proposition 65 List		
	Australia NICNAS:		not listed	Canada CEPA 1999:	DSL yes	
	Japan CSCL/PRTR:		not listed, Japan PDS	CL: not listed		
	Japan ISHL:		not listed			
	South Korea TCCA:		not listed			
	Korea Exist.Chem.In LD50 _{orl rat} :	ventory	475-907 mg/kg			
	LC50 _{ihl rat} :		[4h] 3181-7655 µg/m ³			
	LD50 _{drm rbt} :		2000 mg/kg			
		e after o		of health when ingested in sr	nall quantit	ies.
	Chemical: TSCA Inventory:	polyox	<i>yethylene sorbitan mor</i> listed	olaurate (Tween® 20)	CA	AS No.: 9005-64-5
	Korea Exist.Chem.In	ventory	KE-31681			
75	mL NPW3					
	Chemical:	ethano		Colifornia Dropposition CE List		AS No.: 64-17-5
	TSCA Inventory:		listed	California Proposition 65 List	i: not listed	
	ACGIH: Exposure Routes:		1000 ppm	skin and/or eye contact		
	Target Organs:			/ system, central nervous sys	tom liver l	blood reproductive system
	Symptoms:					eakness, exhaustion), narcosis; couc
	liver damage; anemia	a: repro				
	Australia NICNAS:	a, . e p. e	not listed	Canada CEPA 1999:	DSL yes	
	Japan CSCL/PRTR:		not listed, Japan PDS		-	
	Japan ISHL:		listed ≥0,1%/≥0,1%, A	rticle 57-2 (SDS required)		
	South Korea TCCA:		not listed			
	Korea Exist.Chem.In	ventory				
	LD50 _{orl rat} :		6200 mg/kg			
	LC_Low _{ihl gpg} :		21.9 g/m ³			
	LC_Loworl hmn :		1400 mg/kg			
	LC50 _{ihl mouse} :		[4h] 39 g/m ³			
	LC50 _{ihl rat} :		[10h] 20 g/m ³			
	LD50 _{drm rbt} : LD50 _{oral mouse} :		20 000 mg/kg 3450 mg/kg			
	TRGS 905 (DE):		K5, M5, R _F C			
	Chemical:	sodium	n perchlorate		CA	AS No.: 7601-89-0
	TSCA Inventory:		listed	California Proposition 65 List	t: not listed	
	Australia NICNAS:		not listed	Canada CEPA 1999:	DSL Yes	
	Japan CSCL/PRTR:		not listed, Japan PDS	CL: not listed		
	Japan ISHL:		not listed			
	South Korea TCCA:		not listed			
	Korea Exist.Chem.In	ventory				
	LD50 _{orl rat} :		2100 mg/kg			
	LD50 _{ipr mus} : Acute Effects: Cause	e after o	551 mg/kg al intake, impairments	of health when ingested in sn	nall quantit	ies.
75	mL NPW4					
	Chemical:	ethano	I		CA	AS No.: 64-17-5
	TSCA Inventory:		listed	California Proposition 65 List	t: not listed	
	ACGIH:		1000 ppm			
	Exposure Routes:		inhalation, ingestion,	skin and/or eye contact		
	Target Organs:		Eyes, skin, respiratory	/ system, central nervous sys	tem, liver, l	blood, reproductive system
	Symptoms:			ose; headache, drowsiness, la	assitude (w	eakness, exhaustion), narcosis; cou
	liver damage; anemia	a; repro				
	Australia NICNAS:		not listed	Canada CEPA 1999:	DSL yes	
	Japan CSCL/PRTR: Japan ISHL:		not listed, Japan PDS	Article 57-2 (SDS required)		
	South Korea TCCA:		not listed $\geq 0, 1\%/\geq 0, 1\%, P$			
	Korea Exist.Chem.In	ventory				
	LD50 _{orl rat} :		6200 mg/kg			
			21.9 g/m ³			
			1400 mg/kg			
	LC_Low _{ihl gpg} : LC_Low _{orl hmn} :					www.mn-
	LC_Loworl hmn :					
	LC_Low _{orl hmn} : -NAGEL GmbH & Cc		Neumann-Neander-Str	. 6–8 · 52355 Düren · Germa	any	10
DE/internati	LC_Loworl hmn : 	CH:		FR:		US:
DE/internati	LC_Low _{orl hmn} : -NAGEL GmbH & Cc		Veumann-Neander-Str +41 62 388 55 00			US: Tel.: +1 484 821 0984
DE/internati Tel.: +49	LC_Loworl hmn : 	CH:		FR:	2 68	



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rinting da	te: 12.05.2021		Date of issue: 28.08.2020		
	LC50ihl mouse :	[4h] 39 g/m ³			
	LC50 _{ihl rat} :	[10h] 20 g/m ³			
	LD50 _{drm rbt} :	20 000 mg/kg			
	LD50 _{oral mouse} :	3450 mg/kg			
	TRGS 905 (DE):	K5, M5, R _F C			
	Chemical: so	dium perchlorate		CAS No.: 7601-89-0	
	TSCA Inventory:	listed	California Propositi	on 65 List: not listed	
	Australia NICNAS:	not listed		PA 1999: DSL Yes	
	Japan CSCL/PRTR:		an PDSCL: not listed		
	Japan ISHL:	not listed			
	South Korea TCCA:	not listed			
	Korea Exist.Chem.Inver	ntory: KE-31569			
	LD50 _{orl rat} :	2100 mg/kg			
	LD50 _{ipr mus} :	551 mg/kg			
	Acute Effects: Cause af	ter oral intake, impai	rments of health when inge	sted in small quantities.	
8	3 mL PB				
		vcerole		CAS No.: 56-81-5	
	TSCA Inventory:	listed (1,2,3-P	ropanetriol)	0,00,00-01-0	
	Exposure Routes:		n and/or eye contact		
	Target Organs:		spiratory system, kidneys		
	Symptoms:			eadache, nausea, vomiting; kidney injury	
	Japan CSCL/PRTR:		an PDSCL: not listed		
	Japan ISHL:	not listed			
	Korea Exist.Chem.Inver				
	LD50 _{orl rat} :	12.6 g/kg			
	LD50 _{drm rbt} :	>18.7 g/kg			
	TRGS 905 (DE):	R _F C			
-	75 mg Proteinase K (l	vo)			
		oteinase K (origin: tr	itirachium album)	CAS No.: 39450-01-6	
	TSCA Inventory:	listed (CAS 10		CAS NO.: 59430-01-0	
	Japan CSCL/PRTR:	not listed	2923-34-2)		
	Japan ISHL:	not listed			
	Korea Exist.Chem.Inver				
			ealth when ingested in sma	Il quantities	
				ed contact of small amounts. May cause a	llergy or asthma
	symptoms or breathing			ed contact of small amounts, may bause a	liergy of douring
	e)p.ee er 21041g				
CTIO	N 12: Ecological	information			
ı -	Toxicity				
	Following information is va	alid for pure substa	Incos		
	-	and for pure subsid	inces.		
	2.5 mL B-Beads				
	Chemical:	0 /	s, suspended in water	CAS No.: -	
	Storage class (VCI)): 12			
					
	500 µL Carrier RNA Bu			CAS No.: 593-84-0	
	Chemical:	guanidinium thiod			
				bstance/mixture to environment. 25 mL (EU 1272/2008 Annex I - 1.5.2).	
				25 IIIL (EU 1272/2006 AIIIIex I - 1.5.2).	
	PNEC _(fresh water) : PNEC = Predicted No E	42 ffected Concentration	2.4 µg/L		
			d] 89 1 mc/l		
	LC50 _{fish/96h} :	•	d] 89.1 mg/L		
	EC50 _{daphnia} /48h :		2.4 mg/L		
	IC50 _{scenedesmus} qua		80 mg/L 0d] 200 mg/L		
	EC10 _{pseudomonas pւ} Water hazard class				
	Dispersion coefficie		H 5.1] -1.11		
	Storage class (VCI): [P			
	Giorage Glass (VCI	<i>.</i> 12	-		
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	national: C	H:	FR:	US:	



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	0.09-1.0 mg Carrier RNA Chemical: carrier RNA		CAS No.: 26763-19-6
	110 mL NPB2		
	Chemical: ethanol	0.96 mg/L	CAS No.: 64-17-5
	PNEC _(fresh water) PNEC = Predicted No Effected Concentration		
	LC50daphnia magna/48h: LC50pimephales promelas/96h:	>100 mg/L 13400 - 15100 mg/L	
	LC50 _{leuciscus} idus/96h : LC50 _{fish/96h} :	[48h] 8140 mg/L 13 g/L	
	EC50 _{daphnia/48h} :	9.3-14.2 g/L	
	IC50scenedesmus quadricauda/72h EC10pseudomonas putita/16h	[7d] 5000 mg/L [EC5] 6500 mg/L	
	Water hazard class (DE):	1 WGK No.: 0096	
	Dispersion coefficient _(octanol-water) : Storage class (VCI):	: -0.31 3	
	Chemical: sodium perch	hlarata	CAS No.: 7601-89-0
	Water hazard class (DE):	1 WGK No.: 0382	CAS NO.: 7001-03-0
	Storage class (VCI):	12	
	30 mL NPE5		
	Chemical: chemicals/mi. Water hazard class (DE):	nixture < 1% 1	CAS No.: -
	Storage class (VCI):	12-13	
	30 mL NPL1		
	Chemical: guanidine hyd		CAS No.: 50-01-1
	PNEC (fresh water) : PNEC = Predicted No Effected Concentration	- .on	
	LC50leuciscus idus/96h: LC50fish/96h:	1759 mg/L [4d] 690-1850; [48h] 1758-2420 mg/L	
	EC50 _{daphnia/48h} :	70.2 mg/L	
	EC10 _{pseudomonas putita/16h} : Water hazard class (DE):	[72h] 11.8-33.5 mg/L 1 WGK No.: 0788	
	Storage class (VCI):	12	
		lene sorbitan monolaurate (Tween® 20)	CAS No.: 9005-64-5
	Water hazard class (DE): Storage class (VCI):	1 10-11	
	75 mL NPW3		
	Chemical: ethanol PNEC(tresh water):	0.96 mg/L	CAS No.: 64-17-5
	PNEC (fresh water) PNEC = Predicted No Effected Concentration		
	LC50 _{daphnia} magna/48h: LC50pimephales promelas/96h:	>100 mg/L 13400 - 15100 mg/L	
	LC50leuciscus idus/96h : LC50fish/96h :	[48h] 8140 mg/L 13 g/L	
	EC50 _{daphnia/48h} :	9.3-14.2 g/L	
	IC50 _{scenedesmus} quadricauda/72h EC10 _{pseudomonas} putita/16h	[7d] 5000 mg/L [EC5] 6500 mg/L	
	Water hazard class (DE): Dispersion coefficient _(octanol-water) :	1 WGK No.: 0096	
	Storage class (VCI):	3	
	Chemical: sodium perch	hlorate	CAS No.: 7601-89-0
	Water hazard class (DE): Storage class (VCI):	1 WGK No.: 0382 12	
	olorage olass (vor).	12	
	75 mL NPW4 Chemical: ethanol		CAS No.: 64-17-5
	PNEC (fresh water) : PNEC = Predicted No Effected Concentration	0.96 mg/L	CAS NO.: 04-17-5
	PNEC = Predicted No Effected Concentratic LC50 _{daphnia} magna/48h :	ion >100 mg/L	
	LC50pimephales promelas/96h	13400 - 15100 mg/L	
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	LC50leuciscus idus/96h : LC50fish/96h : EC50daphnia/48h : IC50scenedesmus quadricauda/72h : EC10pseudomonas putita/16h : Water hazard class (DE): Dispersion coefficient(octanol-water) Storage class (VCI):	[48h] 8140 mg/L 13 g/L 9.3-14.2 g/L [7d] 5000 mg/L [EC5] 6500 mg/L 1 WGK No.: 0096 : -0.31 3	
	Chemical: sodium perc Water hazard class (DE): Storage class (VCI):	chlorate 1 WGK No.: 0382 12	CAS No.: 7601-89-0
	8 mL PB Chemical: glycerole PNEC(fresh water) : PNEC = Predicted No Effected Concentrat		CAS No.: 56-81-5
	LC50 _{fish/96h} : EC50 _{daphnia/48h} : IC50 _{scenedesmus} quadricauda/72h : EC10 _{pseudomonas} putita/16h : Water hazard class (DE): Dispersion coefficient _(octanol-water) Storage class (VCI):	>5000 _{24h} mg/L >10 _{24h} g/L IC5 _{7d} >10 g/L EC5: >10 g/L 0 : -1.76 10	
	75 mg Proteinase K (Iyo) Chemical: proteinase H Water hazard class (DE): Storage class (VCI):	K (origin: tritirachium album) 1 13	CAS No.: 39450-01-6
12.2	Persistence and degradability not necessary		
2.3	Bioaccumulative potential not necessary		
12.4	Mobility in soil not necessary		
12.5	Results of PBT and vPvB assess no data available	sment	
12.6	Other adverse effects no additional data available		
SECT	ION 13: Disposal considerat	ions	
P	o not collect in acidic waste. May form toxic ga lease observe local regulations for collection a formation on laboratory waste disposal (waste	nd disposal of hazardous waste and contact v	waste disposal company, where you will obtain

13.1 Waste treatment methods

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

SECTION 14: Transport information

14.1 UN number: 14.3 Class: Road transport	1993 3	14.2 UN proper shipping name: Flammable liquid, n.o.s. (ethanol mixture) 14.4 Packing group: II	
Classification code:	F1		
Limited Quantity:	1 L	Tunnel restriction code: E	
Excepted Quantity: Air transport	E 2	Special instructions: 640C	
PAX:	353	max. weight PAX: 5 L	
CAO: <i>Maritime transport</i>	364	max. weight CAO: 60 L	



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EmS[.] F-E. S-E Storage category: В

14.5 **Environmental hazards**

none, contains only small quantities of hazardous substances, contains only small amounts of these 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

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

'ases
Flammable liquid and vapour.
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Harmful to aquatic life with long lasting effects.

16.1.2 List of relevant P nhrases

P210	. Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261sh	Avoid breathing dust/vapours.
P264W	Wash with water thoroughly after handling.
P273	Avoid release to the environment.
P280sh	Wear protective gloves/eye protection.
P301+312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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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Safety Data Sheet

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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 TRGS 907, German engineering rules governing listing of substances and causes of sensitizations, updated November 2011 KÜHN, BIRETT Merkblätter Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU 2017-08 Adaption of new ethanol denaturation 2016/1867/EU 2017-11 Adaption of ECHA Registration dossier

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