MagNA Pure 96 Cellular RNA LV Kit

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1.7	17.02.2015	Date of first issue: 31.10.2012

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

1.1 Product identifier

Commercial Product Name : MagNA Pure 96 Cellular RNA LV Kit
Mat.-No./ Genisys-No. : 05467535001

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended restrictions on use : For professional users only.

1.3 Details of the supplier of the safety data sheet

Company : Roche Diagnostics Deutschland GmbH
-
Sandhoferstrasse 116
68305 Mannheim
E-mail address : mannheim.umweltschutz@roche.com
Telephone : +496217590
Telefax : +496217592890
Responsible Department : +49(0)621-759-2012+49(0)621-759-4848+49(0)8856-60-2629

1.4 Emergency telephone number

In case of emergencies:	:	Central Works Security Roche Diagnostics GmbH	+49(0)621-759-2203
Centre for detoxification:	:	Mainz Munich	+49(0)6131-19240 +49(0)89-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product is a kit consisting of individual ingredients. The classification of the ingredients can be obtained from section 3. Section Label elements contains the resulting labelling for the kit.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :	H225	Highly flammable liquid and vapour.
	H302 + H332	Harmful if swallowed or if inhaled
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H318	Causes serious eye damage.
	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

		H336	May cause drowsiness or dizziness.
		H412	Harmful to aquatic life with long lasting effects.
Supplemental Hazard Statements	:	EUH032	Contact with acids liberates very toxic gas.
Precautionary statements	:	**Prevention:**	
		P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
		P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
		P284	Wear respiratory protection.
		Response:	
		P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
		P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
		P362 + P364	Take off contaminated clothing and wash it before reuse.
		P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

2.3 Other hazards

See SECTION 3

SECTION 3: Composition/information on ingredients

Lysis/Binding Buffer (CBLB)

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin irritation, Category 2	H315: Causes skin irritation.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Harmful	R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.
Irritant	R41: Risk of serious damage to eyes.
	R32: Contact with acids liberates very toxic gas.
Dangerous for the environment	R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environ-

ment.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
guanidinium thiocyanate	593-84-0 209-812-1	Xn; R20/21/22 R32 R52-R53	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Aquatic Chronic 3; H412	>= 30 - < 50
Dodecyl alcohol, ethoxylated	9002-92-0 500-002-6	Xn; Xn; R22 Xi; Xi; R41	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 10 - < 20

For explanation of abbreviations see section 16.

Proteinase K (PK)

Classification (REGULATION (EC) No 1272/2008)

Respiratory sensitisation, Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.

Classification (67/548/EEC, 1999/45/EC)

Sensitising	R42/43: May cause sensitisation by inhalation and skin contact.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Proteinase, Tritirachium album serine	39450-01-6 254-457-8	Xi; R36/37/38 R42 Xi; Xi; R36/37/38 Xn; R42 Xi; R43	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335	>= 1 - < 3

For explanation of abbreviations see section 16.

DNase Incubation Buffer (IB)

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture.

Hazardous components

Remarks : No hazardous ingredients

Elution Buffer (EB)

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture.

Hazardous components

Remarks : No hazardous ingredients

Wash Buffer I (WB I) / Inhib.Removal Buffer

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.

Classification (67/548/EEC, 1999/45/EC)

Flammable	R10: Flammable.
Harmful	R22: Harmful if swallowed.
Irritant	R36/38: Irritating to eyes and skin.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
guanidinium chloride	50-01-1 200-002-3	Xn; R22 Xi; R36/38	Acute Tox. 4; H302 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>= 30 - < 50
ethanol	64-17-5 200-578-6	F; R11	Flam. Liq. 2; H225	>= 20 - < 30

For explanation of abbreviations see section 16.

Wash Buffer II (WB II)

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.

Classification (67/548/EEC, 1999/45/EC)

Flammable	R10: Flammable.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
ethanol	64-17-5 200-578-6	F; R11	Flam. Liq. 2; H225	>= 30 - < 50

For explanation of abbreviations see section 16.

DNase Incubation Buffer (DIB)

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture.

Hazardous components

Remarks : No hazardous ingredients

Magnetic Glass Particles (MGPs) Suspension

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.

Classification (67/548/EEC, 1999/45/EC)

Highly flammable	R11: Highly flammable.
Irritant	R36: Irritating to eyes.
	R67: Vapours may cause drowsiness and dizziness.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
propan-2-ol	67-63-0 200-661-7	F; R11 Xi; R36 R67	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	>= 90 - <= 100

For explanation of abbreviations see section 16.

DNase I

Classification (REGULATION (EC) No 1272/2008)

Respiratory sensitisation, Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.

Classification (67/548/EEC, 1999/45/EC)

Harmful	R42: May cause sensitisation by inhalation.
Irritant	R43: May cause sensitisation by skin contact.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Nuclease, deoxyribo-	9003-98-9 232-667-0	Xn; R42 Xi; R43	Resp. Sens. 1; H334 Skin Sens. 1; H317	>= 70 - < 90
Calcium chloride dihydrate	10035-04-8 233-140-8	Xi; R36 Xn; R22	Acute Tox. 4; H302 Eye Irrit. 2; H319	>= 1 - < 3

For explanation of abbreviations see section 16.

Tissue Lysis/Proteinase K Buffer II

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture.

Hazardous components

Remarks : No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	:	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	:	Call a physician or poison control centre immediately. Move to fresh air. If unconscious place in recovery position and seek medical advice.
In case of skin contact	:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Small amounts splashed into eyes can cause irreversible tis-

sue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
To prevent leaks or spillages from spreading, provide a suitable liquid retention system.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot

surfaces and sources of ignition.

Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Storage class (TRGS 510) : 3, Flammable liquids

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Lysis/Binding Buffer (CBLB)

Contains no substances with occupational exposure limit values.

Proteinase K (PK)

Contains no substances with occupational exposure limit values.

DNase Incubation Buffer (IB)

Contains no substances with occupational exposure limit values.

Elution Buffer (EB)

Contains no substances with occupational exposure limit values.

Wash Buffer I (WB I) / Inhib.Removal Buffer

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol	64-17-5	AGW	500 ppm 960 mg/m3	DE TRGS 900
Peak-limit: excursion factor (catego-	2;(II)			

ry)	
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

Wash Buffer II (WB II)

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol	64-17-5	AGW	500 ppm 960 mg/m3	DE TRGS 900
Peak-limit: excursion factor (category)	2;(II)			
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

DNase Incubation Buffer (DIB)

Contains no substances with occupational exposure limit values.

Magnetic Glass Particles (MGPs) Suspension

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
propan-2-ol	67-63-0	AGW	200 ppm 500 mg/m3	DE TRGS 900
Peak-limit: excursion factor (category)	2;(II)			
Further information	Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Isopropanol	67-63-0	Acetone: 25 mg/l (Blood)	Immediately after exposition or after working hours	TRGS 903
		Acetone: 25 mg/l (Urine)	Immediately after exposition or after working hours	TRGS 903

DNase I

Contains no substances with occupational exposure limit values.

Tissue Lysis/Proteinase K Buffer II

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Lysis/Binding Buffer (CBLB)

Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	5,0
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Does not sustain combustion.

Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

Proteinase K (PK)

Appearance	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	7,5
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Does not sustain combustion.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	ca. 1,1 g/cm3
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available

Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

DNase Incubation Buffer (IB)

Appearance	:	liquid
Colour	:	colourless
Odour	:	none
Odour Threshold	:	No data available
pH	:	ca. 7,0
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Does not sustain combustion.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

Elution Buffer (EB)

Appearance	:	liquid
Colour	:	colourless
Odour	:	none

Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	100 °C
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	23 hPa (20 °C)
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

Wash Buffer I (WB I) / Inhib.Removal Buffer

Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	6,6
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	29 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available

Lower explosion limit	:	No data available
Vapour pressure	:	43 hPa
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	425 °C
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

Wash Buffer II (WB II)

Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	7,4
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	25 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	43 hPa
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available

Auto-ignition temperature	:	425 °C
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

DNase Incubation Buffer (DIB)

Appearance	:	liquid
Colour	:	colourless
Odour	:	none
Odour Threshold	:	No data available
pH	:	ca. 7
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

Magnetic Glass Particles (MGPs) Suspension

Appearance	:	liquid
Colour	:	colourless black
Odour	:	strong

Odour Threshold	:	No data available
pH	:	No data available
Melting point/range	:	-89 °C
Boiling point/boiling range	:	82 °C
Flash point	:	12 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	12 %(V)
Lower explosion limit	:	2 %(V)
Vapour pressure	:	42 hPa (20 °C)
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	partly miscible
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	485 °C
Decomposition temperature	:	Hazardous decomposition products formed under fire conditions.
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

DNase I

Appearance	:	solid
Colour	:	light yellow
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	6,5 - 7,5 (as aqueous solution)
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	does not flash
Evaporation rate	:	No data available

Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	No data available
Solubility(ies)		
Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

Tissue Lysis/Proteinase K Buffer II

Appearance	:	liquid
Colour	:	colourless
Odour	:	none
Odour Threshold	:	No data available
pH	:	6,6 - 6,9
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Does not sustain combustion.
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1,155 - 1,173 g/cm3
Solubility(ies)		
Water solubility	:	completely miscible

Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

Lysis/Binding Buffer (CBLB)

No data available

Proteinase K (PK)

No data available

DNase Incubation Buffer (IB)

No data available

Elution Buffer (EB)

No data available

Wash Buffer I (WB I) / Inhib.Removal Buffer

No data available

Wash Buffer II (WB II)

No data available

DNase Incubation Buffer (DIB)

No data available

Magnetic Glass Particles (MGPs) Suspension

No data available

DNase I

No data available

Tissue Lysis/Proteinase K Buffer II

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Lysis/Binding Buffer (CBLB)

Acute toxicity

Harmful if swallowed or if inhaled

Components:

guanidinium thiocyanate:

Acute oral toxicity : LD50 Oral (Rat): 593 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 1,5 mg/l
Test atmosphere: dust/mist
Method: Expert judgement

Acute dermal toxicity : Acute toxicity estimate: 1.100 mg/kg
Method: Expert judgement

Dodecyl alcohol, ethoxylated:

Acute oral toxicity : LD50 Oral (Rat): 2.000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:

Dodecyl alcohol, ethoxylated:
Result: Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Dodecyl alcohol, ethoxylated:
Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Components:

guanidinium thiocyanate:
Remarks: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Proteinase K (PK)

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Components:

Proteinase, Tritirachium album serine:
Result: Irritating to skin.
Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Proteinase, Tritirachium album serine:
Result: Irritating to eyes.
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.
Respiratory sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components:

Proteinase, Tritirachium album serine:
Assessment: May cause sensitisation by skin contact.
Remarks: Causes sensitisation.

Assessment: May cause sensitisation by inhalation.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

Proteinase, Tritirachium album serine:
Assessment: May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Components:

Proteinase, Tritirachium album serine:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Not classified based on available information.

Components:

Proteinase, Tritirachium album serine:
No data available

DNase Incubation Buffer (IB)

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Elution Buffer (EB)

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Wash Buffer I (WB I) / Inhib.Removal Buffer

Acute toxicity

Harmful if swallowed.

Components:

guanidinium chloride:

Acute oral toxicity	:	LD50 Oral (Rat): 475 mg/kg LD50 Oral (Mouse): 571 mg/kg LD50 Oral (Rat): 1.120 mg/kg
Acute inhalation toxicity	:	LC50 (Rat, female): 3,2 mg/l Exposure time: 4 h Test atmosphere: dust/mist LC50 (Rat, male and female): 5,3 mg/l Exposure time: 4 h Test atmosphere: dust/mist LC50 (Rat, male): 7,7 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2.001 mg/kg

ethanol:

Acute oral toxicity	:	LD50 (Rat): 7.000 mg/kg LD50 (Mouse): 3.450 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 20000 ppm Exposure time: 10 h LC50 (Mouse): 39 g/m3 Exposure time: 4 h

Skin corrosion/irritation

Causes skin irritation.

Components:

guanidinium chloride:
Species: Rabbit
Result: Irritating to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

guanidinium chloride:
Species: Rabbit
Result: Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Components:

guanidinium chloride:
Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

guanidinium chloride:

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

Wash Buffer II (WB II)

Acute toxicity

Not classified based on available information.

Components:

ethanol:

Acute oral toxicity	:	LD50 (Rat): 7.000 mg/kg LD50 (Mouse): 3.450 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 20000 ppm Exposure time: 10 h LC50 (Mouse): 39 g/m3 Exposure time: 4 h

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Further information

DNase Incubation Buffer (DIB)

Acute toxicity
Not classified based on available information.

Skin corrosion/irritation
Not classified based on available information.

Serious eye damage/eye irritation
Not classified based on available information.

Respiratory or skin sensitisation
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Magnetic Glass Particles (MGPs) Suspension

Acute toxicity
Not classified based on available information.

Components:

propan-2-ol:

Acute oral toxicity	:	LD50 Oral (Rat): 4.570 mg/kg
		LD50 Oral (Mouse): 3.600 mg/kg
		LD50 Oral (Rabbit): 6.410 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 30 mg/l, 16000 ppm

Exposure time: 4 h

LC50 (Mouse): 53 mg/l

Acute dermal toxicity : LD50 Dermal (Rabbit): 13.400 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

propan-2-ol:
Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

propan-2-ol:
Result: Irritating to eyes.
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

May cause drowsiness or dizziness.

Components:

propan-2-ol:
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Components:

propan-2-ol:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Not classified based on available information.

Further information

DNase I

Acute toxicity

Not classified based on available information.

Components:

Calcium chloride dihydrate:

Acute oral toxicity : LD50 (Rat): 1.000 mg/kg

Acute dermal toxicity : LD50 (Rat): 2.630 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Calcium chloride dihydrate:

Remarks: May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Calcium chloride dihydrate:

Assessment: Irritating to eyes.
Result: Eye irritation
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.
Respiratory sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components:

Nuclease, deoxyribo-:

Assessment: May cause sensitisation by inhalation.

Assessment: May cause sensitisation by skin contact.

Calcium chloride dihydrate:

Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

Calcium chloride dihydrate:

Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Not classified based on available information.

Components:

Calcium chloride dihydrate:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Not classified based on available information.

Components:

Calcium chloride dihydrate:
No data available

Tissue Lysis/Proteinase K Buffer II

Acute toxicity

Not classified based on available information.

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Lysis/Binding Buffer (CBLB)

Components:

guanidinium thiocyanate:

Toxicity to fish	:	LC50 (Poecilia reticulata (guppy)): 89,1 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 42,4 mg/l Exposure time: 48 h
Ecotoxicology Assessment Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.
Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

Dodecyl alcohol, ethoxylated:

M-Factor (Acute aquatic toxicity)	:	1
Ecotoxicology Assessment Acute aquatic toxicity	:	Toxic to aquatic life.
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.

Proteinase K (PK)

Components:

Proteinase, Tritirachium album serine:

Ecotoxicology Assessment Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

DNase Incubation Buffer (IB)

No data available

Elution Buffer (EB)

No data available

Wash Buffer I (WB I) / Inhib.Removal Buffer

Components:

guanidinium chloride:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): 1.759 mg/l Exposure time: 48 h
Toxicity to bacteria	:	EC50 (Pseudomonas putida): 89 mg/l Exposure time: 18 h
Ecotoxicology Assessment Acute aquatic toxicity	:	This product has no known ecotoxicological effects.
Chronic aquatic toxicity	:	This product has no known ecotoxicological effects.
Toxicity Data on Soil	:	Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

ethanol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 8.000 mg/l
Exposure time: 48 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 7.100 mg/l
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 5.400 mg/l
Exposure time: 48 h

Toxicity to algae : EC0 (Scenedesmus quadricauda (Green algae)): 5.000 mg/l
Exposure time: 7 d

Toxicity to bacteria : EC0 (Pseudomonas putida): 6.500 mg/l
Exposure time: 16 h

Ecotoxicology Assessment
Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

Wash Buffer II (WB II)

Components:

ethanol:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 8.000 mg/l
Exposure time: 48 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 7.100 mg/l
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 5.400 mg/l
Exposure time: 48 h

Toxicity to algae : EC0 (Scenedesmus quadricauda (Green algae)): 5.000 mg/l
Exposure time: 7 d

Toxicity to bacteria : EC0 (Pseudomonas putida): 6.500 mg/l
Exposure time: 16 h

Ecotoxicology Assessment
Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

DNase Incubation Buffer (DIB)

No data available

Magnetic Glass Particles (MGPs) Suspension

Components:

propan-2-ol:

Toxicity to fish	:	LC0 (Oncorhynchus mykiss (rainbow trout)): 10.000 mg/l Method: OECD Test Guideline 203 LC50 (Oncorhynchus mykiss (rainbow trout)): 12.250 mg/l Method: OECD Test Guideline 203 LC100 (Oncorhynchus mykiss (rainbow trout)): 15.000 mg/l Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 9.500 mg/l Exposure time: 24 h
Toxicity to algae	:	EC0 (Scenedesmus quadricauda (Green algae)): 1.800 mg/l Exposure time: 168 h Method: OECD Test Guideline 201
Toxicity to bacteria	:	EC0 (Pseudomonas putida): 1.050 mg/l Exposure time: 16 h
Ecotoxicology Assessment Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

DNase I

Components:

Nuclease, deoxyribo-:

Ecotoxicology Assessment Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

Calcium chloride dihydrate:

Toxicity to fish	:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 10.650 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 144 mg/l Exposure time: 48 h
Toxicity to bacteria	:	EC50 (Bacteria): > 100 mg/l
Ecotoxicology Assessment Toxicity Data on Soil	:	Not expected to adsorb on soil.
Other organisms relevant to the environment	:	No data available

Tissue Lysis/Proteinase K Buffer II

No data available

12.2 Persistence and degradability

Lysis/Binding Buffer (CBLB)

Components:

Dodecyl alcohol, ethoxylated:

Biodegradability : Biodegradation: > 99 %
Exposure time: 672 h
Method: OECD Test Guideline 302

Proteinase K (PK)

No data available

DNase Incubation Buffer (IB)

No data available

Elution Buffer (EB)

No data available

Wash Buffer I (WB I) / Inhib.Removal Buffer

Components:

guanidinium chloride:

Biodegradability : Biodegradation: < 70 %
Remarks: According to the results of tests of biodegradability this product is not readily biodegradable.

Impact on Sewage Treatment : Do not discharge product into the aquatic environment without pretreatment (biological treatment plant).

Wash Buffer II (WB II)

No data available

DNase Incubation Buffer (DIB)

No data available

Magnetic Glass Particles (MGPs) Suspension

Components:

propan-2-ol:

Biodegradability : Biodegradation: 99 %
Exposure time: 11 d
Method: OECD Test Guideline 302

Biodegradation: 57 %
Exposure time: 5 d
Method: OECD Test Guideline 302

DNase I

No data available

Tissue Lysis/Proteinase K Buffer II

No data available

12.3 Bioaccumulative potential

Lysis/Binding Buffer (CBLB)

Components:

guanidinium thiocyanate:
Partition coefficient: n-octanol/water : log Pow: -1,38

Proteinase K (PK)

No data available

DNase Incubation Buffer (IB)

No data available

Elution Buffer (EB)

No data available

Wash Buffer I (WB I) / Inhib.Removal Buffer

Components:

guanidinium chloride:
Partition coefficient: n-octanol/water : log Pow: ca. -1,7 (20 °C)

Wash Buffer II (WB II)

No data available

DNase Incubation Buffer (DIB)

No data available

Magnetic Glass Particles (MGPs) Suspension

Components:

propan-2-ol:
Partition coefficient: n-octanol/water : log Pow: 0,05

DNase I

No data available

Tissue Lysis/Proteinase K Buffer II

No data available

12.4 Mobility in soil

Lysis/Binding Buffer (CBLB)

No data available

Proteinase K (PK)

No data available

DNase Incubation Buffer (IB)

No data available

Elution Buffer (EB)

No data available

Wash Buffer I (WB I) / Inhib.Removal Buffer

No data available

Wash Buffer II (WB II)

No data available

DNase Incubation Buffer (DIB)

No data available

Magnetic Glass Particles (MGPs) Suspension

No data available

DNase I

No data available

Tissue Lysis/Proteinase K Buffer II

No data available

12.5 Results of PBT and vPvB assessment

Lysis/Binding Buffer (CBLB)

Not relevant

Proteinase K (PK)

Not relevant

DNase Incubation Buffer (IB)

Not relevant

Elution Buffer (EB)

Not relevant

Wash Buffer I (WB I) / Inhib.Removal Buffer

Not relevant

Wash Buffer II (WB II)

Not relevant

DNase Incubation Buffer (DIB)

Not relevant

Magnetic Glass Particles (MGPs) Suspension

Not relevant

DNase I

Not relevant

Tissue Lysis/Proteinase K Buffer II

Not relevant

12.6 Other adverse effects

Lysis/Binding Buffer (CBLB)

Components:

Dodecyl alcohol, ethoxylated:

Additional ecological information	:	Remarks: Very toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Proteinase K (PK)

No data available

DNase Incubation Buffer (IB)

No data available

Elution Buffer (EB)

No data available

Wash Buffer I (WB I) / Inhib.Removal Buffer

No data available

Wash Buffer II (WB II)

No data available

DNase Incubation Buffer (DIB)

No data available

Magnetic Glass Particles (MGPs) Suspension

No data available

DNase I

No data available

Tissue Lysis/Proteinase K Buffer II

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number

ADR	:	UN 3316
IMDG	:	UN 3316
IATA	:	UN 3316

14.2 UN proper shipping name

ADR	:	Chemical kit
IMDG	:	Chemical kit
IATA	:	Chemical kit

14.3 Transport hazard class(es)

ADR	:	9

IMDG : 9

IATA : 9

14.4 Packing group

ADR

Packing group	:	II
Classification Code	:	M11
Labels	:	9
Tunnel restriction code	:	E

IMDG

Packing group	:	II
Labels	:	9
EmS Code	:	F-A, S-P

IATA

Packing instruction (cargo aircraft)	:	960
Packing instruction (passenger aircraft)	:	960
Packing instruction (LQ)	:	Y960
Packing group	:	II
Labels	:	Misecellaneous dangerous goods

14.5 Environmental hazards

ADR

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

Remarks : No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks : Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

		Quantity 1	Quantity 2
7b	Highly flammable	5.000 t	50.000 t

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

P5c	FLAMMABLE LIQUIDS	5.000 t	50.000 t

Water contaminating class (Germany) : WGK 2 water endangering

Lysis/Binding Buffer (CBLB)

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :	H302 + H332	Harmful if swallowed or if inhaled
	H315	Causes skin irritation.
	H318	Causes serious eye damage.
	H412	Harmful to aquatic life with long lasting effects.
Supplemental Hazard Statements :	EUH032	Contact with acids liberates very toxic gas.

Precautionary statements :

Prevention:

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.
P280	Wear protective gloves.

Response:

P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Hazardous components which must be listed on the label:

593-84-0	guanidinium thiocyanate
9002-92-0	Dodecyl alcohol, ethoxylated

Proteinase K (PK)

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :	H317	May cause an allergic skin reaction.
	H334	May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

Precautionary statements : **Prevention:**

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves.
P284	Wear respiratory protection.
Response:	
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

Hazardous components which must be listed on the label:
39450-01-6 Proteinase, Tritirachium album serine

DNase Incubation Buffer (IB)

Labelling (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

Elution Buffer (EB)

Labelling (REGULATION (EC) No 1272/2008)
Not a hazardous substance or mixture.

Wash Buffer I (WB I) / Inhib.Removal Buffer

Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms :

Signal word : Warning

Hazard statements :

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statements : **Prevention:**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ eye protection/ face protection.
Response:	
P303 + P361 + P353	IF ON SKIN (or hair): Take off immedi-

		ately all contaminated clothing. Rinse skin with water/shower.
	P337 + P313	If eye irritation persists: Get medical advice/ attention.
	P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
	Storage:	
	P403 + P235	Store in a well-ventilated place. Keep cool.

Hazardous components which must be listed on the label:
50-01-1 guanidinium chloride

Wash Buffer II (WB II)

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word	:	Warning	
Hazard statements	:	H226	Flammable liquid and vapour.
Precautionary statements	:	**Prevention:**	
		P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
		P233	Keep container tightly closed.
		Response:	
		P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
		P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
		Storage:	
		P403 + P235	Store in a well-ventilated place. Keep cool.
		Disposal:	
		P501	Dispose of contents/ container to an approved waste disposal plant.

DNase Incubation Buffer (DIB)

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Magnetic Glass Particles (MGPs) Suspension

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements :

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:

67-63-0 propan-2-ol

DNase I

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements :

H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements :

Prevention:

P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves.
P284	Wear respiratory protection.

Response:

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.

P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

Hazardous components which must be listed on the label:

9003-98-9 Nuclease, deoxyribo-

Tissue Lysis/Proteinase K Buffer II

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of R-Phrases

R11	:	Highly flammable.
R20/21/22	:	Harmful by inhalation, in contact with skin and if swallowed.
R22	:	Harmful if swallowed.
R32	:	Contact with acids liberates very toxic gas.
R36	:	Irritating to eyes.
R36/37/38	:	Irritating to eyes, respiratory system and skin.
R36/38	:	Irritating to eyes and skin.
R41	:	Risk of serious damage to eyes.
R42	:	May cause sensitisation by inhalation.
R43	:	May cause sensitisation by skin contact.
R52	:	Harmful to aquatic organisms.
R53	:	May cause long-term adverse effects in the aquatic environment.
R67	:	Vapours may cause drowsiness and dizziness.

Full text of H-Statements

H225	:	Highly flammable liquid and vapour.
H302	:	Harmful if swallowed.
H312	:	Harmful in contact with skin.
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H332	:	Harmful if inhaled.
H334	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	:	May cause respiratory irritation.
H336	:	May cause drowsiness or dizziness.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Chronic aquatic toxicity
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Flam. Liq.	:	Flammable liquids

Resp. Sens.	:	Respiratory sensitisation
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT SE	:	Specific target organ toxicity - single exposure

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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