

Genopure Plasmid Maxi Kit

Version
1.6

Revision Date:
20.02.2015

Date of last issue: 12.08.2014
Date of first issue: 17.08.2012

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

1.1 Product identifier

Commercial Product Name : Genopure Plasmid Maxi Kit
Mat.-No./ Genisys-No. : 03143422001

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 +49(0)621-759-2203
Roche Diagnostics GmbH
Centre for detoxification: : Mainz +49(0)6131-19240
Munich +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.
H290 May be corrosive to metals.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open

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P233
Response:
P362 + P364

P370 + P378

flames/hot surfaces. - No smoking.
Keep container tightly closed.

Take off contaminated clothing and wash it before reuse.

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

Suspension Buffer

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 according to EC-directives 67/548/EEC or 1999/45/EC.

Hazardous components

Remarks : No dangerous ingredients according to Regulation (EC) No. 1907/2006

RNase A

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

Lysis Buffer

Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, Category 1 H290: May be corrosive to metals.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

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

Corrosive R35: Causes severe burns.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration	Classification (67/548/EEC)	Classification (REGULATION (EC) No	Concentration (%)

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	number		1272/2008)	
sodium dodecyl sulphate	151-21-3 205-788-1	F; R11 Xn; R21/22 Xi; R36/37/38	Flam. Sol. 1; H228 Acute Tox. 4; H302 Acute Tox. 3; H311 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 Aquatic Chronic 2; H411	>= 1 - < 2,5
sodium hydroxide	1310-73-2 215-185-5	C; R35	Met. Corr. 1; H290 Skin Corr. 1A; H314	>= 0,5 - < 1

For explanation of abbreviations see section 16.

Neutralization Buffer

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

Equilibration Buffer

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	>= 10 - < 20
Triton X-100	9002-93-1	Xn; R22 Xi; R41	Acute Tox. 4; H302 Eye Dam. 1; H318	>= 0,1 - < 1

For explanation of abbreviations see section 16.

Wash Buffer

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.

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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	>= 10 - < 20

For explanation of abbreviations see section 16.

Elution Buffer

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2

H225: Highly flammable liquid and vapour.

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

Highly flammable

R11: Highly 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	>= 10 - < 20

For explanation of abbreviations see section 16.

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 : Move to fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
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 tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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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.
Rinse mouth with water.

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.

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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.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Wipe up with absorbent material (e.g. cloth, fleece).

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 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.
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.

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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

Suspension Buffer

Contains no substances with occupational exposure limit values.

RNase A

Contains no substances with occupational exposure limit values.

Lysis Buffer

Contains no substances with occupational exposure limit values.

Neutralization Buffer

Contains no substances with occupational exposure limit values.

Equilibration Buffer

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol	64-17-5	AGW	500 ppm 960 mg/m ³	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			

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and biological tolerance values, there is no risk of harming the unborn child

Wash Buffer

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol	64-17-5	AGW	500 ppm 960 mg/m ³	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			

Elution Buffer

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
ethanol	64-17-5	AGW	500 ppm 960 mg/m ³	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			

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.

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Suspension Buffer

Appearance : liquid

Colour : colourless

Odour : odourless

Odour Threshold : No data available

pH : 8,0

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) : The product is not flammable., 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 : 1,0 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 : No data available

RNase A

Appearance : solid

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Colour	:	white light yellow
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	No data available
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.

Lysis Buffer

Appearance	:	liquid
Colour	:	colourless
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	> 12
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	does not flash
Evaporation rate	:	No data available

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Flammability (solid, gas) : The product is not flammable., 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 : 1,008 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 : No data available

Neutralization Buffer

Appearance : liquid
Colour : colourless
Odour : vinegar-like

Odour Threshold : No data available
pH : 5,1

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) : The product is not flammable., 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 : 1,14 g/cm³

Solubility(ies)

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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 : No data available

Equilibration Buffer

Appearance : liquid

Colour : colourless

Odour : alcohol-like

Odour Threshold : No data available

pH : 6,3

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : 38 °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 : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 1,03 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 : No data available

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Wash Buffer

Appearance	: liquid
Colour	: colourless
Odour	: alcohol-like
Odour Threshold	: No data available
pH	: 6,3
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: 38 °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	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 1,04 g/cm ³
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	: No data available

Elution Buffer

Appearance	: liquid
Colour	: colourless
Odour	: alcohol-like
Odour Threshold	: No data available
pH	: 8,5
Melting point/range	: No data available
Boiling point/boiling range	: No data available

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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	: 1,03 g/cm ³
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	: No data available

9.2 Other information

Suspension Buffer

No data available

RNase A

No data available

Lysis Buffer

No data available

Neutralization Buffer

No data available

Equilibration Buffer

No data available

Wash Buffer

No data available

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Elution Buffer

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

Suspension Buffer

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.

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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.

RNase A

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.

Lysis Buffer

Acute toxicity

Not classified based on available information.

Components:

sodium dodecyl sulphate:

Acute oral toxicity : LD50 Oral (Rat): 1.288 mg/kg

Acute inhalation toxicity : LC50 (Rat): >3900 mg/m³
Exposure time: 1 h

Acute dermal toxicity : LD50 Dermal (Rabbit): 580 mg/kg

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Skin corrosion/irritation

Causes skin irritation.

Components:

sodium dodecyl sulphate:

Result: Irritating to skin.

sodium hydroxide:

Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

sodium dodecyl sulphate:

Result: Irritating to eyes.

sodium hydroxide:

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.

Components:

sodium hydroxide:

Genotoxicity in vitro : Test Type: Ames test
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

sodium dodecyl sulphate:

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.

Components:

sodium hydroxide:

Effects on fertility :
Remarks: No data available

STOT - single exposure

Not classified based on available information.

Components:

sodium dodecyl sulphate:

Assessment: May cause respiratory irritation.

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sodium hydroxide:

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:

sodium hydroxide:

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

Aspiration toxicity

Not classified based on available information.

Neutralization Buffer

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.

Equilibration Buffer

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

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Acute inhalation toxicity : LC50 (Rat): 20000 ppm
Exposure time: 10 h

LC50 (Mouse): 39 g/m³
Exposure time: 4 h

Triton X-100:

Acute oral toxicity : LD50 Oral (Rat): 1.900 - 5.000 mg/kg

Acute toxicity estimate: 500 mg/kg
Method: Expert judgement

Acute dermal toxicity : LD50 Dermal (Rabbit): > 3.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Triton X-100:

Result: Risk of serious damage 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

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

Acute toxicity

Not classified based on available information.

Components:

ethanol:

Acute oral toxicity : LD50 (Rat): 7.000 mg/kg

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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

Elution Buffer

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.

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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

SECTION 12: Ecological information

12.1 Toxicity

Suspension Buffer

No data available

RNase A

No data available

Lysis Buffer

Components:

sodium dodecyl sulphate:

Toxicity to fish	:	LC0 (Leuciscus idus (Golden orfe)): 26 mg/l
		LC50 (Lepomis macrochirus (Bluegill sunfish)): 4,5 mg/l
		Exposure time: 96 h
		LC50 (Oncorhynchus mykiss (rainbow trout)): 3,6 mg/l
		Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 6 mg/l
		Exposure time: 48 h
Toxicity to bacteria	:	EC50 (Photobacterium phosphoreum): 0,46 mg/l
		Exposure time: 0,5 h

Ecotoxicology Assessment

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

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Other organisms relevant to the environment : No data available

sodium hydroxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 45,4 mg/l
Exposure time: 96 h

LC50 (Leuciscus idus (Golden orfe)): ca. 7 mg/l

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 40,38 mg/l
Exposure time: 48 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

Neutralization Buffer

No data available

Equilibration Buffer

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

Triton X-100:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4 - 8,9 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 18 - 26 mg/l
Exposure time: 48 h

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- 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

Wash Buffer

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

Elution Buffer

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

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

Other organisms relevant to the environment : No data available

12.2 Persistence and degradability

Suspension Buffer

No data available

RNase A

No data available

Lysis Buffer

Components:

sodium dodecyl sulphate:

Biodegradability : Biodegradation: 90 %
Exposure time: 28 d
Method: OECD Test Guideline 301
Remarks: Readily biodegradable, according to appropriate OECD test.

Neutralization Buffer

No data available

Equilibration Buffer

Components:

Triton X-100:

Biodegradability : Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Wash Buffer

No data available

Elution Buffer

No data available

12.3 Bioaccumulative potential

Suspension Buffer

No data available

RNase A

No data available

Lysis Buffer

Components:

sodium dodecyl sulphate:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Exposure time: 3 d
Bioconcentration factor (BCF): 3,9 - 5,3

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Partition coefficient: n-
octanol/water : log Pow: 1,6

Neutralization Buffer

No data available

Equilibration Buffer

Components:

Triton X-100:

Bioaccumulation

: Remarks: No bioaccumulation is to be expected (log Pow <= 4).

Wash Buffer

No data available

Elution Buffer

No data available

12.4 Mobility in soil

Suspension Buffer

No data available

RNase A

No data available

Lysis Buffer

No data available

Neutralization Buffer

No data available

Equilibration Buffer

No data available

Wash Buffer

No data available

Elution Buffer

No data available

12.5 Results of PBT and vPvB assessment

Suspension Buffer

Not relevant

RNase A

Not relevant

Lysis Buffer

Not relevant

Neutralization Buffer

Not relevant

Equilibration Buffer

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Not relevant

Wash Buffer

Not relevant

Elution Buffer

Not relevant

12.6 Other adverse effects

Suspension Buffer

No data available

RNase A

No data available

Lysis Buffer

Components:

sodium dodecyl sulphate:

Additional ecological information : Remarks: No data available

Neutralization Buffer

No data available

Equilibration Buffer

No data available

Wash Buffer

No data available

Elution Buffer

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Can be disposed as waste water, when in compliance with local regulations.

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

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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 : III
Classification Code : M11
Labels : 9
Tunnel restriction code : E

IMDG

Packing group : III
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 : III
Labels : Miscellaneous 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

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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

6	Flammable.	Quantity 1 5.000 t	Quantity 2 50.000 t
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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
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Water contaminating class : WGK 1 slightly water endangering
(Germany)

Suspension Buffer

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

RNase A

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Lysis Buffer

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H290 May be corrosive to metals.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P234 Keep only in original container.
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.
P280 Wear protective gloves.
Response:
P337 + P313 If eye irritation persists: Get medical advice/ attention.

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P390

Absorb spillage to prevent material damage.

Neutralization Buffer

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Equilibration Buffer

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.

Wash Buffer

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.

Precautionary statements : **Prevention:**

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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.

Elution Buffer

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H225 Highly 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.

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.

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R21/22	: Harmful in contact with skin and if swallowed.
R22	: Harmful if swallowed.
R35	: Causes severe burns.
R36/37/38	: Irritating to eyes, respiratory system and skin.
R41	: Risk of serious damage to eyes.

Full text of H-Statements

H225	: Highly flammable liquid and vapour.
H228	: Flammable solid.
H290	: May be corrosive to metals.
H302	: Harmful if swallowed.
H311	: Toxic in contact with skin.
H314	: Causes severe skin burns and eye damage.
H315	: Causes skin irritation.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H335	: May cause respiratory irritation.
H411	: Toxic 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
Flam. Sol.	: Flammable solids
Met. Corr.	: Corrosive to metals
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation
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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