



## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 15.05.2018

Revision: 15.05.2018

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

#### 1.1 Product identifier

Trade name: Binding Buffer PN/FN/PCR

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

No further relevant information available.

**Application of the substance / the preparation:** Laboratory chemicals

#### 1.3 Details of the supplier of the safety data sheet

##### Manufacturer/Supplier:

LGC Genomics GmbH  
Ostendstr. 25 • TGS Haus 8  
12459 Berlin • Germany  
Tel. +49 (0)30 5304 2200  
Fax. +49 (0)30 5304 2201  
Email: kits@lgcgroup.com

**Further information obtainable from:** Business Unit Nucleic Acid Preparation

#### 1.4 Emergency telephone number:

Giftinformationszentrum Mainz / Poison Information Center Mainz, Germany  
Tel.: +49-(0)-6131-19240 / 24 h

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008:



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

#### 2.2 Label elements:

**Labelling according to Regulation (EC) No 1272/2008:**

The product is classified and labelled according to the CLP regulation.

**Hazard pictograms:**



GHS02 GHS05 GHS07

**Signal word:** Danger

**Hazard-determining components of labelling:**

propan-1-ol

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guanidinium chloride

**Hazard statements:**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H336 May cause drowsiness or dizziness.

**Precautionary statements:**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards:****Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 71-23-8	propan-1-ol	25-50%
EINECS: 200-746-9	☠ Flam. Liq. 2, H225; ☠ Eye Dam. 1, H318; ☠ Acute Tox. 4, H302;	
Reg.nr.: 01-2119457558-25	STOT SE 3, H336	
CAS: 50-01-1	guanidinium chloride	20-<25%
EINECS: 200-002-3	☠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	

**Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1 Description of first aid measures:****General information:**

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

**After inhalation:** Supply fresh air and to be sure call for a doctor.**After skin contact:** Immediately wash with water and soap and rinse thoroughly.**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.**After swallowing:** Call for a doctor immediately.**4.2 Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media:

##### Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**5.2 Special hazards arising from the substance or mixture:** Can form explosive gas-air mixtures.

#### 5.3 Advice for firefighters:

##### Protective equipment:

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources.

**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

#### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

#### 6.4 Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling:

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

**Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

#### 7.2 Conditions for safe storage, including any incompatibilities:

##### Storage:

**Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

##### Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising agents.

**Further information about storage conditions:** Keep container tightly sealed.

**7.3 Specific end use(s):** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

**Additional information about design of technical facilities:** No further data; see item 7.

#### 8.1 Control parameters:

##### Ingredients with limit values that require monitoring at the workplace:

##### 71-23-8 propan-1-ol

WEL Short-term value: 625 mg/m<sup>3</sup>, 250 ppm

Long-term value: 500 mg/m<sup>3</sup>, 200 ppm

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### 8.2 Exposure controls:

#### Personal protective equipment:

#### General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

#### Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter ABEK2-P3

**Protection of hands:** Protective gloves

#### Material of gloves:

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.35$  mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

#### Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly sealed goggles

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties:

#### General Information:

#### Appearance:

<b>Form:</b>	Fluid
<b>Colour:</b>	Light yellow
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

**pH-value:** Not determined.

#### Change in condition:

<b>Melting point/freezing point:</b>	Undetermined.
<b>Initial boiling point and boiling range:</b>	96 °C

**Flash point:** 30 °C

**Flammability (solid, gas):** Not applicable.

**Ignition temperature:** 360 °C

**Decomposition temperature:** Not determined.

**Auto-ignition temperature:** Product is not selfigniting.

**Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

#### Explosion limits:

<b>Lower:</b>	2.1 Vol %
<b>Upper:</b>	13.5 Vol %

**Vapour pressure at 20 °C:** 19 hPa

**Density:** Not determined.

**Relative density:** Not determined.

**Vapour density:** Not determined.

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<b>Evaporation rate:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	Fully miscible.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>9.2 Other information:</b>	No further relevant information available.

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### SECTION 10: Stability and reactivity

**10.1 Reactivity:** No further relevant information available.**10.2 Chemical stability:****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions:** Reacts with oxidising agents.**10.4 Conditions to avoid:** No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide

### SECTION 11: Toxicological information

**11.1 Information on toxicological effects:****Acute toxicity**

Harmful if swallowed.

**LD/LC50 values relevant for classification:****71-23-8 propan-1-ol**

Oral LD50 1,870 mg/kg (rat)

Dermal LD50 5,040 mg/kg (rabbit)

**50-01-1 guanidinium chloride**

Oral LD50 475 mg/kg (rat)

**Primary irritant effect:****Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure**

May cause drowsiness or dizziness.

**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

**12.1 Toxicity:****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability:** No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.

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**12.4 Mobility in soil:** No further relevant information available.**Additional ecological information:****General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

**12.5 Results of PBT and vPvB assessment:****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects:** No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods:****European waste catalogue:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number:**

ADR, IMDG, IATA

UN1274

**14.2 UN proper shipping name:**

ADR

1274 n-PROPANOL (PROPYL ALCOHOL, NORMAL),  
solution

IMDG, IATA

n-PROPANOL (PROPYL ALCOHOL, NORMAL) solution

**14.3 Transport hazard class(es):**

ADR, IMDG, IATA

**Class:**

3 Flammable liquids.

**Label:**

3

**14.4 Packing group:**

ADR, IMDG, IATA

III

**14.5 Environmental hazards:****Marine pollutant:**

No

**14.6 Special precautions for user:**

Warning: Flammable liquids.

**Danger code (Kemler):**

30

**EMS Number:**

F-E,S-D

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

**Transport/Additional information:**

ADR

**Limited quantities (LQ):**

5L

**Transport category:**

3

**Tunnel restriction code:**

D/E

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**UN "Model Regulation":**UN1274, n-PROPANOL (PROPYL ALCOHOL,  
NORMAL), solution, 3, III

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### SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases:**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

**Training hints:**

Employees who use the product have to be trained on risks for health, hygiene, use of individual protection, accident preventive actions, rescue actions, etc.,

**Department issuing SDS:**

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Wildsteig 4A

D-42113 Wuppertal

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**Contact:** Dr. Axel Deeg**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3