



Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date: 02.05.2025

Version number: 1.0

Revision: 02.05.2025

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

1.1 Product identifier:

Trade name: Binding buffer LCL**UFI:** 9YH9-UMXN-N00C-AU0Y

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

12459 Berlin • Germany

Tel. +49 30 1663 54600

Email: techsupport@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. 2 H225 Highly flammable liquid and vapour.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

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

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Hazard-determining components of labelling:alcohols, C12-14-secondary, ethoxylated
propan-2-ol**Hazard statements:**

H225 Highly flammable liquid and vapour.
H302+H332 Harmful if swallowed or if inhaled.
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 carefully and follow all instructions.
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 Mixtures:****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 67-63-0	propan-2-ol	>25-≤50%
EINECS: 200-661-7	⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	
Reg.nr.: 01-2119457558-25		
CAS: 84133-50-6	alcohols, C12-14-secondary, ethoxylated	>25-≤50%
EC number: 617-534-0	⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315	
CAS: 4961-40-4	3,6-diazaoctane-1,8-diamine tetrahydrochloride	<1%
EINECS: 225-604-3	⚠ Carc. 2, H351; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	

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.

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After swallowing:

Rinse out mouth and then drink plenty of water.

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.

SECTION 5: Firefighting measures:**5.1 Extinguishing media:****Suitable extinguishing agents:**CO₂, 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).

Keep away from heat and direct sunlight.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Flammable gas-air mixtures may form in empty receptacles.

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:

Protect from heat and direct sunlight.

Keep container tightly sealed.

Storage class: 3

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

SECTION 8: Exposure controls/personal protection:

8.1 Control parameters:

Ingredients with limit values that require monitoring at the workplace:

67-63-0 propan-2-ol

OEL Short-term value: 400 ppm

Long-term value: 200 ppm

Skin

8.2 Exposure controls:

Appropriate engineering controls: No further data; see section 7.**Individual protection measures, such as 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.**Hand protection:** Protective gloves

Material of gloves:

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 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/face protection: Tightly sealed goggles

SECTION 9: Physical and chemical properties:

9.1 Information on basic physical and chemical properties:

General Information:

Physical state:

Fluid

Colour:

Colourless

Odour:

Characteristic

Odour threshold:

Not determined.

Melting point/freezing point:

Undetermined.

Boiling point or initial boiling point and boiling range:

81.4 °C

Flammability:

Not applicable.

Lower and upper explosion limit:**Lower:**

2 Vol % (67-63-0 propan-2-ol)

Upper:

12 Vol % (67-63-0 propan-2-ol)

Flash point:

21 °C

Auto-ignition temperature:

360 °C

Decomposition temperature:

Not determined.

pH at 20 °C:

3.4

Viscosity:**Kinematic viscosity:**

Not determined.

Dynamic:

Not determined.

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Solubility:**water:** Fully miscible.**Partition coefficient n-octanol/water (log value):** Not determined.**Vapour pressure at 20 °C:** 19 hPa**Density and/or relative density:****Density at 20 °C:** 0.903 g/cm³**Relative density:** Not determined.**Vapour density:** Not determined.**9.2 Other information:****Appearance:****Form:** Fluid**Important information on protection of health and environment, and on safety.:****Ignition temperature:** Product is not selfigniting.**Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.**Change in condition:****Evaporation rate:** Not determined.**Information with regard to physical hazard classes:****Explosives:** Void**Flammable gases:** Void**Aerosols:** Void**Oxidising gases:** Void**Gases under pressure:** Void**Flammable liquids:** Highly flammable liquid and vapour.**Flammable solids:** Void**Self-reactive substances and mixtures:** Void**Pyrophoric liquids:** Void**Pyrophoric solids:** Void**Self-heating substances and mixtures:** Void**Substances and mixtures, which emit flammable gases in contact with water:** Void**Oxidising liquids:** Void**Oxidising solids:** Void**Organic peroxides:** Void**Corrosive to metals:** Void**Desensitised explosives:** Void**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.

Forms explosive gas mixture with air.

10.4 Conditions to avoid: No further relevant information available.**10.5 Incompatible materials:** No further relevant information available.**10.6 Hazardous decomposition products:**

Highly flammable gases/vapours

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Carbon monoxide and carbon dioxide

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SECTION 11: Toxicological information:

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity:

Harmful if swallowed or if inhaled.

LD/LC50 values relevant for classification:**Binding buffer LP**

Oral LD50 >1,479 mg/kg (rat)

Inhalative LC50/4 h 5.39 mg/l

67-63-0 propan-2-ol

Oral LD50 5,840 mg/kg (rat) (OECD 401)

Dermal LD50 13,800 mg/kg (rabbit) (OECD 402)

Inhalative LC50/4 h >25 mg/l /6 h (rat) (OECD 403)

84133-50-6 alcohols, C12-14-secondary, ethoxylated

Oral LD50 >412 mg/kg (rat)

Dermal LD50 >14,000 mg/kg (rat)

Inhalative LC50/4 h 1.5 mg/l (ATE)

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.**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.

11.2 Information on other hazards:

Endocrine disrupting properties:

None of the ingredients is listed.

SECTION 12: Ecological information:

12.1 Toxicity:

Aquatic toxicity:**67-63-0 propan-2-ol**

EC50 >100 mg/l (algae)

LC50 9,714 mg/l /24 h (daphnia) (OECD 202)

9,640 mg/l /96 h (fish) (OECD 203)

84133-50-6 alcohols, C12-14-secondary, ethoxylated

EC50 7.3 mg/l /48 h (daphnia)

LC50 3.2 mg/l /96 h (fish)

12.2 Persistence and degradability: No further relevant information available.**12.3 Bioaccumulative potential:** No further relevant information available.**12.4 Mobility in soil:** No further relevant information available.

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12.5 Results of PBT and vPvB assessment:**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties:**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects:**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.

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 or ID number:****ADR, IMDG, IATA**

UN1219

14.2 UN proper shipping name:**ADR**

1219 ISOPROPANOL (ISOPROPYL ALCOHOL)

IMDG, IATA

ISOPROPANOL (ISOPROPYL ALCOHOL)

14.3 Transport hazard class(es):**ADR, IMDG, IATA****Class:**

3 Flammable liquids.

Label:

3

14.4 Packing group:**ADR, IMDG, IATA**

II

14.5 Environmental hazards:**Marine pollutant:**

No

14.6 Special precautions for user:

Warning: Flammable liquids.

Hazard identification number (Kemler code):

33

EMS Number:

F-E,S-D

Stowage Category:

B

14.7 Maritime transport in bulk according to IMO instruments:

Not applicable.

Transport/Additional information:**ADR****Limited quantities (LQ):**

1L

Transport category:

2

Tunnel restriction code:

D/E

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Trade name: Binding buffer LCL**UN "Model Regulation":**(Contd. of page 7)
UN 1219 ISOPROPANOL (ISOPROPYL ALCOHOL),
3, II

SECTION 15: Regulatory information:

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

Directive 2012/18/EU:**Named dangerous substances - ANNEX I:** None of the ingredients is listed.**Seveso category:** P5c FLAMMABLE LIQUIDS**Qualifying quantity (tonnes) for the application of lower-tier requirements:** 5.000 t**Qualifying quantity (tonnes) for the application of upper-tier requirements:** 50.000 t**REGULATION (EC) No 1907/2006 ANNEX XVII:** Conditions of restriction: 3**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II:**

None of the ingredients is listed.

REGULATION (EU) 2019/1148:**Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3)):**

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS:

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors:

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors:

None of the ingredients is listed.

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.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

Department issuing SDS:

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Abbreviations and acronyms:

ADR: Accord relatif au transport international 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
ATE: Acute toxicity estimate values
Flam. Liq. 2: Flammable liquids – Category 2
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
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
