

SAFETY DATA SHEET

XL1-Blue Electroporation-Competent Cells, Part Number 200228

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

1.1 Product identifier

Product name : XL1-Blue Electroporation-Competent Cells, Part Number 200228
Part no. (chemical kit) : 200228
Part no. : pUC 18 DNA Control 200231-42
 Plasmid
 XL1-Blue electroporation 200228-41
 competent cells

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

Identified uses : Analytical reagent.
 pUC 18 DNA Control Plasmid 0.01 ml (0.1 ng / µl)
 XL1-Blue electroporation competent cells 5 x 0.1 ml
Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
 Hewlett-Packard-Str. 8
 76337 Waldbronn
 Germany
 0800 603 1000
e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : pUC 18 DNA Control Mixture
 Plasmid
 XL1-Blue electroporation Mixture
 competent cells

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

pUC 18 DNA Control Plasmid The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

XL1-Blue electroporation competent cells The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity : XL1-Blue electroporation competent cells Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

Ingredients of unknown ecotoxicity :

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

SECTION 2: Hazards identification

Signal word	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	No signal word. No signal word.
Hazard statements	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	No known significant effects or critical hazards. No known significant effects or critical hazards.

Precautionary statements

Prevention	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not applicable. Not applicable.
-------------------	--	------------------------------------

Response	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not applicable. Not applicable.
-----------------	--	------------------------------------

Storage	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not applicable. Not applicable.
----------------	--	------------------------------------

Disposal	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not applicable. Not applicable.
-----------------	--	------------------------------------

Supplemental label elements	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not applicable. Not applicable.
------------------------------------	--	------------------------------------

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not applicable. Not applicable.
---	--	------------------------------------

Special packaging requirements

Tactile warning of danger	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not applicable. Not applicable.
----------------------------------	--	------------------------------------

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	This mixture does not contain any substances that are assessed to be a PBT or a vPvB. This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
--	--	--

Other hazards which do not result in classification	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	None known. None known.
--	--	----------------------------

SECTION 3: Composition/information on ingredients

3.1 Substances : pUC 18 DNA Control Plasmid Mixture
 XL1-Blue electroporation Mixture
 competent cells

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
XL1-Blue electroporation competent cells					
glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≤10	Not classified. See Section 16 for the full text of the H statements declared above.	-	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

XL1-Blue electroporation competent cells [1] Substance with a workplace exposure limit
 Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	: pUC 18 DNA Control Plasmid	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
	: XL1-Blue electroporation competent cells	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: pUC 18 DNA Control Plasmid	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	: XL1-Blue electroporation competent cells	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: pUC 18 DNA Control Plasmid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	: XL1-Blue electroporation competent cells	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: pUC 18 DNA Control Plasmid	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	: XL1-Blue electroporation competent cells	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	: pUC 18 DNA Control Plasmid	No action shall be taken involving any personal risk or without suitable training.
	: XL1-Blue electroporation competent cells	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

SECTION 4: First aid measures

Potential acute health effects

Eye contact	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.
Inhalation	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.
Skin contact	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.
Ingestion	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.
Inhalation	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.
Skin contact	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.
Ingestion	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: pUC 18 DNA Control Plasmid	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: XL1-Blue electroporation competent cells	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: pUC 18 DNA Control Plasmid	No specific treatment.
	: XL1-Blue electroporation competent cells	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: pUC 18 DNA Control Plasmid	Use an extinguishing agent suitable for the surrounding fire.
	: XL1-Blue electroporation competent cells	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: pUC 18 DNA Control Plasmid	None known.
	: XL1-Blue electroporation competent cells	None known.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture	: pUC 18 DNA Control Plasmid	In a fire or if heated, a pressure increase will occur and the container may burst.
	XL1-Blue electroporation competent cells	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: pUC 18 DNA Control Plasmid	No specific data.
	XL1-Blue electroporation competent cells	Decomposition products may include the following materials: carbon dioxide carbon monoxide

5.3 Advice for firefighters

Special precautions for fire-fighters	: pUC 18 DNA Control Plasmid	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
	XL1-Blue electroporation competent cells	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	: pUC 18 DNA Control Plasmid	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	XL1-Blue electroporation competent cells	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: pUC 18 DNA Control Plasmid	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
	XL1-Blue electroporation competent cells	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
For emergency responders	: pUC 18 DNA Control Plasmid	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	XL1-Blue electroporation competent cells	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	: pUC 18 DNA Control Plasmid	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	XL1-Blue electroporation competent cells	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	: pUC 18 DNA Control Plasmid	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
	XL1-Blue electroporation competent cells	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: pUC 18 DNA Control Plasmid	Put on appropriate personal protective equipment (see Section 8).
	XL1-Blue electroporation competent cells	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: pUC 18 DNA Control Plasmid	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	XL1-Blue electroporation competent cells	Potentially biohazardous material. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage	: pUC 18 DNA Control Plasmid	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	XL1-Blue electroporation competent cells	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

SECTION 7: Handling and storage

Recommendations	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: pUC 18 DNA Control Plasmid XL1-Blue electroporation competent cells	Not available. Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
XL1-Blue electroporation competent cells Glycerol	NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV-8hr: 10 mg/m ³ 8 hours. Form: mist

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Handle as biohazard material (Biosafety level 1). Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 8: Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : pUC 18 DNA Control Plasmid Liquid.
XL1-Blue electroporation competent cells Liquid.
- Colour** : pUC 18 DNA Control Plasmid Not available.
XL1-Blue electroporation competent cells Not available.
- Odour** : pUC 18 DNA Control Plasmid Not available.
XL1-Blue electroporation competent cells Not available.
- Odour threshold** : pUC 18 DNA Control Plasmid Not available.
XL1-Blue electroporation competent cells Not available.
- Melting point/freezing point** : pUC 18 DNA Control Plasmid 0°C
XL1-Blue electroporation competent cells Not available.
- Initial boiling point and boiling range** : pUC 18 DNA Control Plasmid 100°C
XL1-Blue electroporation competent cells Not available.
- Flammability** : pUC 18 DNA Control Plasmid Not applicable.
XL1-Blue electroporation competent cells Not applicable.
- Upper/lower flammability or explosive limits** : pUC 18 DNA Control Plasmid Not available.
XL1-Blue electroporation competent cells Not available.

Flash point :

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
XL1-Blue electroporation competent cells				
Glycerol	-	-	177	-
D-Glucitol	-	-	282.85	-

XL1-Blue Electroporation-Competent Cells, Part Number 200228

SECTION 9: Physical and chemical properties

Auto-ignition temperature	Ingredient name	°C	Method
	XL1-Blue electroporation competent cells Glycerol	370	-

Decomposition temperature : pUC 18 DNA Control Not available.
Plasmid
XL1-Blue electroporation Not available.
competent cells

pH : pUC 18 DNA Control 7.5
Plasmid
XL1-Blue electroporation Not available.
competent cells

Viscosity : pUC 18 DNA Control Not available.
Plasmid
XL1-Blue electroporation Not available.
competent cells

Solubility(ies)	Media	Result
	pUC 18 DNA Control Plasmid water XL1-Blue electroporation competent cells water	Soluble Soluble

Partition coefficient: n-octanol/water : pUC 18 DNA Control Not applicable.
Plasmid
XL1-Blue electroporation Not applicable.
competent cells

Vapour pressure	Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
	pUC 18 DNA Control Plasmid water XL1-Blue electroporation competent cells water Glycerol	17.5 17.5 0.000075	2.3 2.3 0.00001	- - -	92.258 92.258 0.0025	12.3 12.3 0.00033	- - -

Evaporation rate : pUC 18 DNA Control Not available.
Plasmid
XL1-Blue electroporation Not available.
competent cells

Relative density : pUC 18 DNA Control Not available.
Plasmid
XL1-Blue electroporation Not available.
competent cells

Vapour density : pUC 18 DNA Control Not available.
Plasmid
XL1-Blue electroporation Not available.
competent cells

Explosive properties : pUC 18 DNA Control Not available.
Plasmid
XL1-Blue electroporation Not available.
competent cells

SECTION 9: Physical and chemical properties

Oxidising properties : pUC 18 DNA Control Not available.
Plasmid
XL1-Blue electroporation Not available.
competent cells

Particle characteristics

Median particle size : pUC 18 DNA Control Not applicable.
Plasmid
XL1-Blue electroporation Not applicable.
competent cells

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : pUC 18 DNA Control No specific test data related to reactivity available for this
Plasmid product or its ingredients.
XL1-Blue electroporation No specific test data related to reactivity available for this
competent cells product or its ingredients.

10.2 Chemical stability : pUC 18 DNA Control The product is stable.
Plasmid
XL1-Blue electroporation The product is stable.
competent cells

10.3 Possibility of hazardous reactions : pUC 18 DNA Control Under normal conditions of storage and use, hazardous
Plasmid reactions will not occur.
XL1-Blue electroporation Under normal conditions of storage and use, hazardous
competent cells reactions will not occur.

10.4 Conditions to avoid : pUC 18 DNA Control No specific data.
Plasmid
XL1-Blue electroporation No specific data.
competent cells

10.5 Incompatible materials : pUC 18 DNA Control May react or be incompatible with oxidising materials.
Plasmid
XL1-Blue electroporation May react or be incompatible with oxidising materials.
competent cells

10.6 Hazardous decomposition products : pUC18 Control Plasmid Under normal conditions of storage and use, hazardous
DNA decomposition products should not be produced.
XL1-Blue electroporation Under normal conditions of storage and use, hazardous
competent cells decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

SECTION 11: Toxicological information

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : pUC 18 DNA Control Plasmid Not available.
 XL1-Blue electroporation competent cells Not available.

Potential acute health effects

Inhalation	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.
Ingestion	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.
Skin contact	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.
Eye contact	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.
Ingestion	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.
Skin contact	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.
Eye contact	: pUC 18 DNA Control Plasmid	No specific data.
	: XL1-Blue electroporation competent cells	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

SECTION 11: Toxicological information

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

General	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.

Carcinogenicity	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.

Mutagenicity	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.

Reproductive toxicity	: pUC 18 DNA Control Plasmid	No known significant effects or critical hazards.
	: XL1-Blue electroporation competent cells	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

SECTION 12: Ecological information

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

Additional information

14.6 Special precautions for user : **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

Label : pUC 18 DNA Control Plasmid Not applicable.
XL1-Blue electroporation Not applicable.
competent cells

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.
Japan : **Japan inventory (CSCL)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.
Thailand : Not determined.
Turkey : Not determined.

SECTION 15: Regulatory information

United States : All components are active or exempted.
Viet Nam : All components are listed or exempted.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Not applicable.

Full text of classifications [CLP/GHS]

Not applicable.

Date of issue/ Date of revision : 30/06/2023
Date of previous issue : No previous validation
Version : 1

Notice to reader

Disclaimer: The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.