

SAFETY DATA SHEET

BL21-Gold Competent Cells, Part Number 230130

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

1.1 Product identifier

Product name	: BL21-Gold Competent Cells, Part Number 230130
Part no. (chemical kit)	: 230130
Part no.	: BL21-Gold competent cells 230130-41 pUC 18 DNA Control Plasmid 200231-42

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

Identified uses	: Analytical reagent. BL21-Gold competent cells 1 ml (10 X 0.1 ml) pUC 18 DNA Control Plasmid 0.01 ml (0.1 ng / µl)
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	: BL21-Gold competent cells Mixture pUC 18 DNA Control Plasmid Mixture
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Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

BL21-Gold competent cells	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.
pUC 18 DNA Control Plasmid	The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity : BL21-Gold competent cells Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

Ingredients of unknown ecotoxicity : BL21-Gold competent cells Contains 5% of components with unknown hazards to the aquatic environment

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	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No signal word. No signal word.
Hazard statements	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No known significant effects or critical hazards. No known significant effects or critical hazards.

Precautionary statements

Prevention	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.
Response	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.
Storage	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.
Disposal	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.

Supplemental label elements	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.
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Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.
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Special packaging requirements

Tactile warning of danger	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.
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2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	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	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	None known. None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : BL21-Gold competent cells Mixture
pUC 18 DNA Control Plasmid Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
BL21-Gold competent cells					
glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	-	[1]
sucrose	REACH #: Annex IV EC: 200-334-9 CAS: 57-50-1	≤10	Not classified.	-	[1]
See Section 16 for the full text of the H statements declared above.					

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

BL21-Gold 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	: BL21-Gold competent cells 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. 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	: BL21-Gold competent cells 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: BL21-Gold competent cells 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. 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	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training.

SECTION 4: First aid measures**4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects**

Eye contact	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No known significant effects or critical hazards. No known significant effects or critical hazards.
Inhalation	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No known significant effects or critical hazards. No known significant effects or critical hazards.
Ingestion	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No specific data. No specific data.
Inhalation	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No specific data. No specific data.
Skin contact	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No specific data. No specific data.
Ingestion	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No specific data. No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No specific treatment. No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	None known. None known.

SECTION 5: Firefighting measures**5.2 Special hazards arising from the substance or mixture**

Hazards from the substance or mixture	: BL21-Gold competent cells	In a fire or if heated, a pressure increase will occur and the container may burst.
	pUC 18 DNA Control Plasmid	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	: BL21-Gold competent cells	Decomposition products may include the following materials:
		carbon dioxide
		carbon monoxide
		sulfur oxides
		halogenated compounds
		metal oxide/oxides
	pUC 18 DNA Control Plasmid	No specific data.

5.3 Advice for firefighters

Special precautions for fire-fighters	: BL21-Gold 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.
	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.
Special protective equipment for fire-fighters	: BL21-Gold 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.
	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.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel	: BL21-Gold 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.
	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.
For emergency responders	: BL21-Gold 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".
	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".

SECTION 6: Accidental release measures

6.2 Environmental precautions	: BL21-Gold 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).
	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).
6.3 Methods and material for containment and cleaning up		
Methods for cleaning up	: BL21-Gold 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.
	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.
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	: BL21-Gold competent cells	Put on appropriate personal protective equipment (see Section 8).
	pUC 18 DNA Control Plasmid	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: BL21-Gold 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.
	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.

7.2 Conditions for safe storage, including any incompatibilities

Storage	: BL21-Gold 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.
	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

SECTION 7: Handling and storage

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)

Recommendations	: BL21-Gold competent cells	Industrial applications, Professional applications.
	pUC 18 DNA Control Plasmid	Industrial applications, Professional applications.
Industrial sector specific solutions	: BL21-Gold competent cells	Not available.
	pUC 18 DNA Control Plasmid	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
BL21-Gold competent cells	NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV: 10 mg/m ³ 8 hours. Form: mist
Glycerol	
Sucrose	
	NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV: 10 mg/m ³ 8 hours. OELV: 20 mg/m ³ 15 minutes.

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.
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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.
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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.
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SECTION 8: Exposure controls/personal protection

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.
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	:	BL21-Gold competent cells	Liquid.
		pUC 18 DNA Control	Liquid.
		Plasmid	
Colour	:	BL21-Gold competent cells	Not available.
		pUC 18 DNA Control	Not available.
		Plasmid	
Odour	:	BL21-Gold competent cells	Not available.
		pUC 18 DNA Control	Not available.
		Plasmid	
Odour threshold	:	BL21-Gold competent cells	Not available.
		pUC 18 DNA Control	Not available.
		Plasmid	
Melting point/freezing point	:	BL21-Gold competent cells	Not available.
		pUC 18 DNA Control	0°C
		Plasmid	
Initial boiling point and boiling range	:	BL21-Gold competent cells	Not available.
		pUC 18 DNA Control	100°C
		Plasmid	
Flammability	:	BL21-Gold competent cells	Not applicable.
		pUC 18 DNA Control	Not applicable.
		Plasmid	

SECTION 9: Physical and chemical properties

Upper/lower flammability or explosive limits	:	BL21-Gold competent cells	Not available.				
		pUC 18 DNA Control	Not available.				
		Plasmid					
Flash point	:		Closed cup		Open cup		
		Ingredient name	°C	Method	°C	Method	
		BL21-Gold competent cells					
		glycerol	-	-	177	-	
Auto-ignition temperature	:	Ingredient name	°C		Method		
		BL21-Gold competent cells					
		dimethyl sulfoxide	300 to 302		-		
		glycerol	370		-		
Decomposition temperature	:	BL21-Gold competent cells	Not available.				
		pUC 18 DNA Control	Not available.				
		Plasmid					
pH	:	BL21-Gold competent cells	6.4				
		pUC 18 DNA Control	7.5				
		Plasmid					
Viscosity	:	BL21-Gold competent cells	Not available.				
		pUC 18 DNA Control	Not available.				
		Plasmid					
Solubility(ies)	:	Media	Result				
		BL21-Gold competent cells					
		water	Soluble				
		pUC 18 DNA Control Plasmid					
		water	Soluble				
Partition coefficient: n-octanol/water	:	BL21-Gold competent cells	Not applicable.				
		pUC 18 DNA Control	Not applicable.				
		Plasmid					
Vapour pressure	:		Vapour Pressure at 20°C			Vapour pressure at 50°C	
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa
		BL21-Gold competent cells					
		water	17.5	2.3	-	92.258	12.3
		dimethyl sulfoxide	0.42	0.056	EU A.4	-	-
		pUC 18 DNA Control Plasmid					
		water	17.5	2.3	-	92.258	12.3
Evaporation rate	:	BL21-Gold competent cells	Not available.				
		pUC 18 DNA Control	Not available.				
		Plasmid					

SECTION 9: Physical and chemical properties

Relative density	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not available. Not available.
Vapour density	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not available. Not available.
Explosive properties	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not available. Not available.
Oxidising properties	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not available. Not available.
Particle characteristics		
Median particle size	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Not applicable. Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	No specific data. No specific data.
10.5 Incompatible materials	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
10.6 Hazardous decomposition products	: BL21-Gold competent cells pUC 18 DNA Control Plasmid	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous 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

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

: BL21-Gold competent cells
pUC 18 DNA Control Plasmid

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Not available.

Potential acute health effects

Inhalation : BL21-Gold competent cells
pUC 18 DNA Control Plasmid

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Ingestion : BL21-Gold competent cells
pUC 18 DNA Control Plasmid

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Skin contact : BL21-Gold competent cells
pUC 18 DNA Control Plasmid

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Eye contact : BL21-Gold competent cells
pUC 18 DNA Control Plasmid

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : BL21-Gold competent cells
pUC 18 DNA Control Plasmid

No specific data.

No specific data.

SECTION 11: Toxicological information

Ingestion	: BL21-Gold competent cells	No specific data.
	pUC 18 DNA Control	No specific data.
	Plasmid	
Skin contact	: BL21-Gold competent cells	No specific data.
	pUC 18 DNA Control	No specific data.
	Plasmid	
Eye contact	: BL21-Gold competent cells	No specific data.
	pUC 18 DNA Control	No specific data.
	Plasmid	

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

Short term exposure

Potential immediate effects	: Not available.
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	: BL21-Gold competent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control	No known significant effects or critical hazards.
	Plasmid	
Carcinogenicity	: BL21-Gold competent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control	No known significant effects or critical hazards.
	Plasmid	
Mutagenicity	: BL21-Gold competent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control	No known significant effects or critical hazards.
	Plasmid	
Reproductive toxicity	: BL21-Gold competent cells	No known significant effects or critical hazards.
	pUC 18 DNA Control	No known significant effects or critical hazards.
	Plasmid	

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.
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12.2 Persistence and degradability

Not available.

SECTION 12: Ecological information

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.

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.

SECTION 14: Transport information

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 : BL21-Gold competent cells Not applicable.
pUC 18 DNA Control Plasmid Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

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

SECTION 15: Regulatory information

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: Not determined.
Eurasian Economic Union	: Russian Federation inventory: All components are listed or exempted.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): All components are listed or exempted.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: Not determined.
Turkey	: Not determined.
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.
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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
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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	: 16/02/2024
Date of previous issue	: No previous validation
Version	: 1

Notice to reader

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