SAFETY DATA SHEET

Agilent Technologies

pBC KS (+) Phagemid, Part Number 212217

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

1.1 Product identifier

Product name : pBC KS (+) Phagemid, Part Number 212217

Part no. (chemical kit) : 212217

Part no. : pBC KS+ Phagemid 212217-51
XL1-Blue MRF' E.coli Strain 200301-81

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

Identified uses : Analytical reagent.

pBC KS+ Phagemid 0.02 ml(20 µg 1 µg/ µl)
XL1-Blue MRF' E.coli Strain 0.5 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 : pBC KS+ Phagemid Mixture
XL1-Blue MRF' E.coli Strain Mixture

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

Not classified.

pBC KS+ Phagemid The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

XL1-Blue MRF' E.coli Strain The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Ingredients of unknown toxicity : XL1-Blue MRF' E.coli Strain Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

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

Signal word : pBC KS+ Phagemid No signal word.
XL1-Blue MRF' E.coli Strain No signal word.

SECTION 2: Hazards identification

Hazard statements	:	pBC KS+ Phagemid	No known significant effects or critical hazards.
		XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
Precautionary statements			
Prevention	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.
Response	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.
Storage	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.
Disposal	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.
Supplemental label elements	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.
Special packaging requirements			
Tactile warning of danger	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	pBC KS+ Phagemid	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
		XL1-Blue MRF' E.coli Strain	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	:	pBC KS+ Phagemid	None known.
		XL1-Blue MRF' E.coli Strain	None known.

SECTION 3: Composition/information on ingredients

3.1 Substances	:	pBC KS+ Phagemid	Mixture
		XL1-Blue MRF' E.coli Strain	Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
XL1-Blue MRF' E.coli Strain					
glycerol	REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified. **See Section 16 for the full text of the H statements declared above.**	-	[1]

SECTION 3: Composition/information on ingredients

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 MRF' E.coli Strain [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	: pBC KS+ Phagemid	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 MRF' E.coli Strain	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	: pBC KS+ Phagemid	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	XL1-Blue MRF' E.coli Strain	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: pBC KS+ Phagemid	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	XL1-Blue MRF' E.coli Strain	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: pBC KS+ Phagemid	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 MRF' E.coli Strain	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	: pBC KS+ Phagemid	No action shall be taken involving any personal risk or without suitable training.
	XL1-Blue MRF' E.coli Strain	No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
Inhalation	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
Skin contact	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
Ingestion	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: pBC KS+ Phagemid	No specific data.
	XL1-Blue MRF' E.coli Strain	No specific data.

SECTION 4: First aid measures

Inhalation	:	pBC KS+ Phagemid	No specific data.
		XL1-Blue MRF' E.coli Strain	No specific data.
Skin contact	:	pBC KS+ Phagemid	No specific data.
		XL1-Blue MRF' E.coli Strain	No specific data.
Ingestion	:	pBC KS+ Phagemid	No specific data.
		XL1-Blue MRF' E.coli Strain	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	pBC KS+ Phagemid	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		XL1-Blue MRF' E.coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	pBC KS+ Phagemid	No specific treatment.
		XL1-Blue MRF' E.coli Strain	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	pBC KS+ Phagemid	Use an extinguishing agent suitable for the surrounding fire.
		XL1-Blue MRF' E.coli Strain	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	pBC KS+ Phagemid	None known.
		XL1-Blue MRF' E.coli Strain	None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	:	pBC KS+ Phagemid	In a fire or if heated, a pressure increase will occur and the container may burst.
		XL1-Blue MRF' E.coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous combustion products	:	pBC KS+ Phagemid	No specific data.
		XL1-Blue MRF' E.coli Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters	:	pBC KS+ Phagemid	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 MRF' E.coli Strain	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	:	pBC KS+ Phagemid	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 MRF' E.coli Strain	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

SECTION 5: Firefighting measures

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 :

pBC KS+ Phagemid: 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 MRF' E.coli Strain: 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 :

pBC KS+ Phagemid: 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 MRF' E.coli Strain: 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 :

pBC KS+ Phagemid: 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 MRF' E.coli Strain: 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 :

pBC KS+ Phagemid: 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 MRF' E.coli Strain: 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 :

pBC KS+ Phagemid: Put on appropriate personal protective equipment (see Section 8).

XL1-Blue MRF' E.coli Strain: Put on appropriate personal protective equipment (see Section 8).

SECTION 7: Handling and storage

Advice on general occupational hygiene :	pBC KS+ Phagemid	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 MRF' E.coli Strain	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 :	pBC KS+ Phagemid	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 MRF' E.coli Strain	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)

Recommendations :	pBC KS+ Phagemid	Industrial applications, Professional applications.
	XL1-Blue MRF' E.coli Strain	Industrial applications, Professional applications.
Industrial sector specific solutions :	pBC KS+ Phagemid	Not available.
	XL1-Blue MRF' E.coli Strain	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
XL1-Blue MRF' E.coli Strain Glycerol	**NAOSH (Ireland, 5/2021). Notes: Advisory Occupational Exposure Limit Values (OELVs)** OELV-8hr: 10 mg/m³ 8 hours. Form: mist

Biological exposure indices

No exposure indices known.

SECTION 8: Exposure controls/personal protection

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.

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 :

pBC KS+ Phagemid	Liquid.
XL1-Blue MRF' E.coli Strain	Liquid.

SECTION 9: Physical and chemical properties

Colour : pBC KS+ Phagemid — Not available.
XL1-Blue MRF' E.coli Strain — Not available.

Odour : pBC KS+ Phagemid — Not available.
XL1-Blue MRF' E.coli Strain — Not available.

Odour threshold : pBC KS+ Phagemid — Not available.
XL1-Blue MRF' E.coli Strain — Not available.

Melting point/freezing point : pBC KS+ Phagemid — 0°C
XL1-Blue MRF' E.coli Strain — Not available.

Initial boiling point and boiling range : pBC KS+ Phagemid — 100°C
XL1-Blue MRF' E.coli Strain — Not available.

Flammability : pBC KS+ Phagemid — Not applicable.
XL1-Blue MRF' E.coli Strain — Not applicable.

Upper/lower flammability or explosive limits : pBC KS+ Phagemid — Not available.
XL1-Blue MRF' E.coli Strain — Not available.

Flash point :

Ingredient name	Closed cup		Open cup	
	°C	Method	°C	Method
XL1-Blue MRF' E.coli Strain				
glycerol	-	-	177	-

Auto-ignition temperature :

Ingredient name	°C	Method
XL1-Blue MRF' E.coli Strain		
glycerol	370	-

Decomposition temperature : pBC KS+ Phagemid — Not available.
XL1-Blue MRF' E.coli Strain — Not available.

pH : pBC KS+ Phagemid — 7.5
XL1-Blue MRF' E.coli Strain — 7

Viscosity : pBC KS+ Phagemid — Not available.
XL1-Blue MRF' E.coli Strain — Not available.

Solubility(ies) :

Media	Result
pBC KS+ Phagemid	
water	Soluble
XL1-Blue MRF' E.coli Strain	
water	Soluble

Partition coefficient: n-octanol/water : pBC KS+ Phagemid — Not applicable.
XL1-Blue MRF' E.coli Strain — Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method

SECTION 9: Physical and chemical properties

pBC KS+ Phagemid						
water	17.5	2.3	-	92.258	12.3	-
XL1-Blue MRF' E. coli Strain						
water	17.5	2.3	-	92.258	12.3	-
glycerol	0.000075	0.00001	-	0.0025	0.00033	-

Evaporation rate : pBC KS+ Phagemid: Not available.
XL1-Blue MRF' E.coli Strain: Not available.

Relative density : pBC KS+ Phagemid: Not available.
XL1-Blue MRF' E.coli Strain: Not available.

Vapour density : pBC KS+ Phagemid: Not available.
XL1-Blue MRF' E.coli Strain: Not available.

Explosive properties : pBC KS+ Phagemid: Not available.
XL1-Blue MRF' E.coli Strain: Not available.

Oxidising properties : pBC KS+ Phagemid: Not available.
XL1-Blue MRF' E.coli Strain: Not available.

Particle characteristics

Median particle size : pBC KS+ Phagemid: Not applicable.
XL1-Blue MRF' E.coli Strain: Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : pBC KS+ Phagemid: No specific test data related to reactivity available for this product or its ingredients.
XL1-Blue MRF' E.coli Strain: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : pBC KS+ Phagemid: The product is stable.
XL1-Blue MRF' E.coli Strain: The product is stable.

10.3 Possibility of hazardous reactions : pBC KS+ Phagemid: Under normal conditions of storage and use, hazardous reactions will not occur.
XL1-Blue MRF' E.coli Strain: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : pBC KS+ Phagemid: No specific data.
XL1-Blue MRF' E.coli Strain: No specific data.

10.5 Incompatible materials : pBC KS+ Phagemid: May react or be incompatible with oxidising materials.
XL1-Blue MRF' E.coli Strain: May react or be incompatible with oxidising materials.

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	: pBC KS+ Phagemid	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	XL1-Blue MRF' Strain	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	: pBC KS+ Phagemid	Not available.
	XL1-Blue MRF' E.coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Inhalation	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
Ingestion	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
Skin contact	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
Eye contact	: pBC KS+ Phagemid	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: pBC KS+ Phagemid	No specific data.
	XL1-Blue MRF' E.coli Strain	No specific data.
Ingestion	: pBC KS+ Phagemid	No specific data.
	XL1-Blue MRF' E.coli Strain	No specific data.

SECTION 11: Toxicological information

Skin contact	:	pBC KS+ Phagemid XL1-Blue MRF' E.coli Strain	No specific data. No specific data.
Eye contact	:	pBC KS+ Phagemid XL1-Blue MRF' E.coli Strain	No specific data. 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.
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	:	pBC KS+ Phagemid XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	:	pBC KS+ Phagemid XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	:	pBC KS+ Phagemid XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	:	pBC KS+ Phagemid XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards. 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.

SECTION 12: Ecological information

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.

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.

SECTION 14: Transport information

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	:	pBC KS+ Phagemid	Not applicable.
		XL1-Blue MRF' E.coli Strain	Not applicable.

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.

SECTION 15: Regulatory information

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.

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.

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Date of previous issue : No previous validation

Version : 1

Notice to reader

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