

SAFETY DATA SHEET



ExAssist Interference-Resistant Helper Phage with XOLR strain, Part Number
211203

Section 1. Identification

Product identifier : ExAssist Interference-Resistant Helper Phage with XOLR strain, Part Number 211203

Part No. (Chemical Kit) : 211203

Part No. : LOLR E. coli Strain 200304-81
 XL1-Blue MRF' E.coli Strain 200301-81
 ExAssist Interference-Resistant Helper Phage 200253-81

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

Analytical reagent.

LOLR E. coli Strain 0.5 ml
 XL1-Blue MRF' E.coli Strain 0.5 ml
 ExAssist Interference-Resistant Helper Phage 1 ml >1 X E10 pfu/ml

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
 679 Springvale Road
 Mulgrave
 Victoria 3170, Australia
 1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

LOLR E. coli Strain Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30%

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

GHS label elements

Signal word : LOLR E. coli Strain No signal word.
 XL1-Blue MRF' E.coli Strain No signal word.
 ExAssist Interference-Resistant Helper Phage No signal word.

Hazard statements : LOLR E. coli Strain No known significant effects or critical hazards.
 XL1-Blue MRF' E.coli Strain No known significant effects or critical hazards.
 ExAssist Interference-Resistant Helper Phage No known significant effects or critical hazards.

Precautionary statements

Prevention : LOLR E. coli Strain Not applicable.
 XL1-Blue MRF' E.coli Strain Not applicable.
 ExAssist Interference-Resistant Helper Phage Not applicable.

Response : LOLR E. coli Strain Not applicable.
 XL1-Blue MRF' E.coli Strain Not applicable.
 ExAssist Interference-Resistant Helper Phage Not applicable.

Section 2. Hazard(s) identification

Storage	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Not applicable.
	XL1-Blue MRF' E.coli Strain	Not applicable.
	ExAssist Interference-Resistant Helper Phage	Not applicable.
Disposal	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Not applicable.
	XL1-Blue MRF' E.coli Strain	Not applicable.
	ExAssist Interference-Resistant Helper Phage	Not applicable.
Supplemental label elements	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Not applicable.
	XL1-Blue MRF' E.coli Strain	Not applicable.
	ExAssist Interference-Resistant Helper Phage	Not applicable.
Other hazards which do not result in classification	: <input checked="" type="checkbox"/> LOLR E. coli Strain	None known.
	XL1-Blue MRF' E.coli Strain	None known.
	ExAssist Interference-Resistant Helper Phage	None known.

Section 3. Composition and ingredient information

Substance/mixture	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Mixture
	XL1-Blue MRF' E.coli Strain	Mixture
	ExAssist Interference-Resistant Helper Phage	Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
<input checked="" type="checkbox"/> LOLR E. coli Strain Glycerol	≥10 - ≤30	56-81-5
XL1-Blue MRF' E.coli Strain Glycerol	≥10 - ≤30	56-81-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: <input checked="" type="checkbox"/> LOLR 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.
	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.
	ExAssist Interference-Resistant Helper Phage	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	: <input checked="" type="checkbox"/> LOLR E. coli Strain	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.
	ExAssist Interference-	Remove victim to fresh air and keep at rest in a

Section 4. First aid measures

	Resistant Helper Phage	position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	: <input checked="" type="checkbox"/> LOLR E. coli Strain	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.
	ExAssist Interference-Resistant Helper Phage	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
	ExAssist Interference-Resistant Helper Phage	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
	ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards.
Inhalation	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
	ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards.
Skin contact	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
	ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards.
Ingestion	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No known significant effects or critical hazards.
	XL1-Blue MRF' E.coli Strain	No known significant effects or critical hazards.
	ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No specific data.
	XL1-Blue MRF' E.coli Strain	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.
Inhalation	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No specific data.
	XL1-Blue MRF' E.coli Strain	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.

Section 4. First aid measures

Skin contact	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No specific data.
	XL1-Blue MRF' E.coli Strain	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.
Ingestion	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No specific data.
	XL1-Blue MRF' E.coli Strain	No specific data.
	ExAssist Interference-Resistant Helper Phage	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: <input checked="" type="checkbox"/> LOLR E. coli Strain	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.
	ExAssist Interference-Resistant Helper Phage	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: <input checked="" type="checkbox"/> LOLR E. coli Strain	No specific treatment.
	XL1-Blue MRF' E.coli Strain	No specific treatment.
	ExAssist Interference-Resistant Helper Phage	No specific treatment.
Protection of first-aiders	: <input checked="" type="checkbox"/> LOLR E. coli Strain	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.
	ExAssist Interference-Resistant Helper Phage	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Use an extinguishing agent suitable for the surrounding fire.
	XL1-Blue MRF' E.coli Strain	Use an extinguishing agent suitable for the surrounding fire.
	ExAssist Interference-Resistant Helper Phage	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: <input checked="" type="checkbox"/> LOLR E. coli Strain	None known.
	XL1-Blue MRF' E.coli Strain	None known.
	ExAssist Interference-Resistant Helper Phage	None known.
Specific hazards arising from the chemical	: <input checked="" type="checkbox"/> LOLR E. coli Strain	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.
	ExAssist Interference-Resistant Helper Phage	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
	XL1-Blue MRF' E.coli Strain	Decomposition products may include the following materials:

Section 5. Firefighting measures

		carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides No specific data.
	ExAssist Interference-Resistant Helper Phage	
Special protective actions for fire-fighters	: <input checked="" type="checkbox"/> LOLR 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.
	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.
	ExAssist Interference-Resistant Helper Phage	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	: <input checked="" type="checkbox"/> LOLR 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.
	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.
	ExAssist Interference-Resistant Helper Phage	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: <input checked="" type="checkbox"/> LOLR 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.
	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.
	ExAssist Interference-Resistant Helper Phage	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	: <input checked="" type="checkbox"/> LOLR 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".
	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".
	ExAssist Interference-	If specialised clothing is required to deal with the

Section 6. Accidental release measures

Resistant Helper Phage spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions	: <input checked="" type="checkbox"/> LOLR 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).
	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).
	ExAssist Interference-Resistant Helper Phage	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).

Methods and material for containment and cleaning up

Methods for cleaning up	: <input checked="" type="checkbox"/> LOLR 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.
	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.
	ExAssist Interference-Resistant Helper Phage	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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: <input checked="" type="checkbox"/> LOLR E. coli Strain	Put on appropriate personal protective equipment (see Section 8).
	XL1-Blue MRF' E.coli Strain	Put on appropriate personal protective equipment (see Section 8).
	ExAssist Interference-Resistant Helper Phage	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: <input checked="" type="checkbox"/> LOLR 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.
	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

Section 7. Handling and storage

ExAssist Interference-Resistant Helper Phage

protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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.

Conditions for safe storage, including any incompatibilities : LOLR 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.

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.

ExAssist Interference-Resistant Helper Phage

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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> LOLR E. coli Strain Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.
XL1-Blue MRF' E.coli Strain Glycerol	Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours.

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

Section 8. Exposure controls and personal protection

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.

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.

Section 9. Physical and chemical properties

Appearance

Physical state	: XLOLR E. coli Strain	Liquid.
	XL1-Blue MRF' E.coli Strain	Liquid.
	ExAssist Interference-Resistant Helper Phage	Liquid.
Colour	: XLOLR E. coli Strain	Not available.
	XL1-Blue MRF' E.coli Strain	Not available.
	ExAssist Interference-Resistant Helper Phage	Not available.
Odour	: XLOLR E. coli Strain	Not available.
	XL1-Blue MRF' E.coli Strain	Not available.
	ExAssist Interference-Resistant Helper Phage	Not available.
Odour threshold	: XLOLR E. coli Strain	Not available.
	XL1-Blue MRF' E.coli Strain	Not available.
	ExAssist Interference-Resistant Helper Phage	Not available.
pH	: XLOLR E. coli Strain	7
	XL1-Blue MRF' E.coli Strain	7
	ExAssist Interference-Resistant Helper Phage	7.5
Melting point	: XLOLR E. coli Strain	Not available.
	XL1-Blue MRF' E.coli Strain	Not available.
	ExAssist Interference-Resistant Helper Phage	0°C (32°F)

Section 9. Physical and chemical properties

Boiling point	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. 100°C (212°F)
Flash point	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Evaporation rate	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Flammability (solid, gas)	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not applicable. Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Vapour pressure	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Vapour density	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Relative density	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Solubility	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Soluble in the following materials: cold water and hot water. Soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Auto-ignition temperature	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Decomposition temperature	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.
Viscosity	: XOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Not available. Not available. Not available.

Section 10. Stability and reactivity

Reactivity	: <input checked="" type="checkbox"/> LOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	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. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: <input checked="" type="checkbox"/> LOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	The product is stable. The product is stable. The product is stable.
Possibility of hazardous reactions	: <input checked="" type="checkbox"/> LOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: <input checked="" type="checkbox"/> LOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No specific data. No specific data. No specific data.
Incompatible materials	: <input checked="" type="checkbox"/> LOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials.
Hazardous decomposition products	: <input checked="" type="checkbox"/> LOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	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. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> LOLR E. coli Strain Glycerol	LD50 Oral	Rat	12600 mg/kg	-
XL1-Blue MRF' E.coli Strain Glycerol	LD50 Oral	Rat	12600 mg/kg	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
<input checked="" type="checkbox"/> LOLR E. coli Strain Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
XL1-Blue MRF' E.coli Strain Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

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 : LOLR E. coli Strain
 XL1-Blue MRF' E.coli Strain
 ExAssist Interference-Resistant Helper Phage
 Routes of entry anticipated: Oral, Dermal, Inhalation.
 Routes of entry anticipated: Oral, Dermal, Inhalation.
 Not available.

Potential acute health effects

Eye contact : LOLR E. coli Strain
 XL1-Blue MRF' E.coli Strain
 ExAssist Interference-Resistant Helper Phage
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Inhalation : LOLR E. coli Strain
 XL1-Blue MRF' E.coli Strain
 ExAssist Interference-Resistant Helper Phage
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Skin contact : LOLR E. coli Strain
 XL1-Blue MRF' E.coli Strain
 ExAssist Interference-Resistant Helper Phage
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Ingestion : LOLR E. coli Strain
 XL1-Blue MRF' E.coli Strain
 ExAssist Interference-Resistant Helper Phage
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No specific data. No specific data. No specific data.
Inhalation	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No specific data. No specific data. No specific data.
Skin contact	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No specific data. No specific data. No specific data.
Ingestion	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No specific data. 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

Not available.

General	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Teratogenicity	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Developmental effects	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Fertility effects	: XLOLR E. coli Strain XL1-Blue MRF' E.coli Strain ExAssist Interference-Resistant Helper Phage	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
<input checked="" type="checkbox"/> XLOLR E. coli Strain Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
XL1-Blue MRF' E.coli Strain Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<input checked="" type="checkbox"/> XLOLR E. coli Strain Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
XL1-Blue MRF' E.coli Strain Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
<input checked="" type="checkbox"/> XLOLR E. coli Strain Glycerol	-1.76	-	low
XL1-Blue MRF' E.coli Strain Glycerol	-1.76	-	low

Mobility in soil

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

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may

Section 13. Disposal considerations

retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

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.

Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

5

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

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	: Not determined.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: <input checked="" type="checkbox"/> Japan inventory (ENCS): All components are listed or exempted. <input checked="" type="checkbox"/> Japan inventory (ISHL): All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 21/08/2017
Date of previous issue : 21/01/2016.
Version : 6

Key to abbreviations

: ADG = Australian Dangerous Goods
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 NOHSC = National Occupational Health and Safety Commission
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
Not classified.	

References : Not available.

✔ Indicates information that has changed from previously issued version.

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.