SAFETY DATA SHEET
Rapid Excision Kit, Part Number 211204

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

1.1 Product identifier
Product name: Rapid Excision Kit, Part Number 211204
Part no. (chemical kit): 211204
Part no.: XPORT E. coli Host Strain 200310-81
XLOLR E. coli Strain 200304-81
704 helper phage 200254-81

1.2 Relevant identified uses of the substance or mixture and uses advised against
Material uses: Analytical reagent.

1.3 Details of the supplier of the safety data sheet
Agilent Technologies Manufacturing GmbH & Co. KG
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: XPORT E. coli Host Strain Mixture
XLOLR E. coli Strain Mixture
704 helper phage Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

Ingredients of unknown toxicity: XPORT E. coli Host Strain Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
XLOLR 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

Date of issue/Date of revision: 01/04/2020
Date of previous issue: 22/01/2018
Version: 2
### SECTION 2: Hazards identification

| Signal word | XPORT E. coli Host Strain | No signal word. |
| Signal word | XLORL E. coli Strain | No signal word. |
| Signal word | 704 helper phage | No signal word. |

| Hazard statements | XPORT E. coli Host Strain | No known significant effects or critical hazards. |
| Hazard statements | XLORL E. coli Strain | No known significant effects or critical hazards. |
| Hazard statements | 704 helper phage | No known significant effects or critical hazards. |

| Precautionary statements | XPORT E. coli Host Strain | Not applicable. |
| Precautionary statements | XLORL E. coli Strain | Not applicable. |
| Precautionary statements | 704 helper phage | Not applicable. |

| Prevention | XPORT E. coli Host Strain | Not applicable. |
| Prevention | XLORL E. coli Strain | Not applicable. |
| Prevention | 704 helper phage | Not applicable. |

| Response | XPORT E. coli Host Strain | Not applicable. |
| Response | XLORL E. coli Strain | Not applicable. |
| Response | 704 helper phage | Not applicable. |

| Storage | XPORT E. coli Host Strain | Not applicable. |
| Storage | XLORL E. coli Strain | Not applicable. |
| Storage | 704 helper phage | Not applicable. |

| Disposal | XPORT E. coli Host Strain | Not applicable. |
| Disposal | XLORL E. coli Strain | Not applicable. |
| Disposal | 704 helper phage | Not applicable. |

| Hazardous ingredients | XLORL E. coli Strain | Not applicable. |

| Supplemental label elements | XPORT E. coli Host Strain | Not applicable. |
| Supplemental label elements | XLORL E. coli Strain | Safety data sheet available on request. |
| Supplemental label elements | 704 helper phage | Not applicable. |

| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | XPORT E. coli Host Strain | Not applicable. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | XLORL E. coli Strain | Not applicable. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | 704 helper phage | Not applicable. |

#### Special packaging requirements

| Tactile warning of danger | XPORT E. coli Host Strain | Not applicable. |
| Tactile warning of danger | XLORL E. coli Strain | Not applicable. |
| Tactile warning of danger | 704 helper phage | Not applicable. |

#### 2.3 Other hazards

| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII | XPORT E. coli Host Strain | This mixture does not contain any substances that are assessed to be a PBT or a vPvB. |
| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII | XLORL E. coli Strain | This mixture does not contain any substances that are assessed to be a PBT or a vPvB. |
| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII | 704 helper phage | 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 | XPORT E. coli Host Strain | None known. |
| Other hazards which do not result in classification | XLORL E. coli Strain | None known. |
| Other hazards which do not result in classification | 704 helper phage | None known. |
Rapid Excision Kit, Part Number 211204

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>EC: 231-598-3 CAS: 7647-14-5</td>
<td>≤3</td>
<td>Eye Irrit. 2, H319</td>
<td>[1]</td>
</tr>
</tbody>
</table>

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.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[5] Substance of equivalent concern
[6] Additional disclosure due to company policy

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPORT E. coli Host Strain Glycerol</td>
<td>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.</td>
</tr>
<tr>
<td>XLOLR E. coli Strain Glycerol</td>
<td>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.</td>
</tr>
<tr>
<td>704 helper phage</td>
<td>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.</td>
</tr>
</tbody>
</table>

Inhalation

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPORT E. coli Host Strain</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>XLOLR E. coli Strain</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>704 helper phage</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>

Skin contact

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPORT E. coli Host Strain</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>XLOLR E. coli Strain</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>704 helper phage</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

Ingestion:
- **XPORT E. coli Host 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.

- **XLOLR 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.

- **704 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.

Protection of first-aiders:
- **XPORT E. coli Host Strain**: No action shall be taken involving any personal risk or without suitable training.

- **XLOLR E. coli Strain**: No action shall be taken involving any personal risk or without suitable training.

- **704 helper phage**: 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**:
  - **XPORT E. coli Host Strain**: No known significant effects or critical hazards.
  - **XLOLR E. coli Strain**: No known significant effects or critical hazards.
  - **704 helper phage**: No known significant effects or critical hazards.

- **Inhalation**:
  - **XPORT E. coli Host Strain**: No known significant effects or critical hazards.
  - **XLOLR E. coli Strain**: No known significant effects or critical hazards.
  - **704 helper phage**: No known significant effects or critical hazards.

- **Skin contact**:
  - **XPORT E. coli Host Strain**: No known significant effects or critical hazards.
  - **XLOLR E. coli Strain**: No known significant effects or critical hazards.
  - **704 helper phage**: No known significant effects or critical hazards.

- **Ingestion**:
  - **XPORT E. coli Host Strain**: No known significant effects or critical hazards.
  - **XLOLR E. coli Strain**: No known significant effects or critical hazards.
  - **704 helper phage**: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- **Eye contact**:
  - **XPORT E. coli Host Strain**: No specific data.
  - **XLOLR E. coli Strain**: No specific data.
  - **704 helper phage**: No specific data.

- **Inhalation**:
  - **XPORT E. coli Host Strain**: No specific data.
  - **XLOLR E. coli Strain**: No specific data.
  - **704 helper phage**: No specific data.

- **Skin contact**:
  - **XPORT E. coli Host Strain**: No specific data.
  - **XLOLR E. coli Strain**: No specific data.
  - **704 helper phage**: No specific data.
SECTION 4: First aid measures

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician:
- **XPORT E. coli Host Strain**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **XLOLR E. coli Strain**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- **704 helper phage**: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments:
- **XPORT E. coli Host Strain**: No specific treatment.
- **XLOLR E. coli Strain**: No specific treatment.
- **704 helper phage**: No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

**Suitable extinguishing media**:
- **XPORT E. coli Host Strain**: Use an extinguishing agent suitable for the surrounding fire.
- **XLOLR E. coli Strain**: Use an extinguishing agent suitable for the surrounding fire.
- **704 helper phage**: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**:
- **XPORT E. coli Host Strain**: None known.
- **XLOLR E. coli Strain**: None known.
- **704 helper phage**: None known.

5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture**:
- **XPORT E. coli Host Strain**: In a fire or if heated, a pressure increase will occur and the container may burst.
- **XLOLR E. coli Strain**: In a fire or if heated, a pressure increase will occur and the container may burst.
- **704 helper phage**: In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products**:
- **XPORT E. coli Host Strain**: Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
- **XLOLR E. coli Strain**: Decomposition products may include the following materials:
  - carbon dioxide
  - carbon monoxide
  - halogenated compounds
  - metal oxide/oxides
- **704 helper phage**: No specific data.

5.3 Advice for firefighters

**Special precautions for fire-fighters**:
- **XPORT E. coli Host 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.
- **XLOLR 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.
- **704 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.
### SECTION 5: Firefighting measures

<table>
<thead>
<tr>
<th>Special protective equipment for fire-fighters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>XPORTE. coli Host Strain</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>XLOLR E. coli Strain</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>704 helper phage</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

<table>
<thead>
<tr>
<th>For non-emergency personnel</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>XPORTE. coli Host Strain</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>XLOLR E. coli Strain</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>704 helper phage</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>For emergency responders</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>XPORTE. coli Host Strain</strong></td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td><strong>XLOLR E. coli Strain</strong></td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
<tr>
<td><strong>704 helper phage</strong></td>
<td>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 &quot;For non-emergency personnel&quot;.</td>
</tr>
</tbody>
</table>

#### 6.2 Environmental precautions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>XPORTE. coli Host Strain</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>XLOLR E. coli Strain</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>704 helper phage</strong></td>
<td>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).</td>
</tr>
</tbody>
</table>
SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:
- **XPORT E. coli Host 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.
- **XLOLR 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.
- **704 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.

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:
- **XPORT E. coli Host Strain**: Put on appropriate personal protective equipment (see Section 8).
- **XLOLR E. coli Strain**: Put on appropriate personal protective equipment (see Section 8).
- **704 helper phage**: Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene:
- **XPORT E. coli Host 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.
- **XLOLR 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.
- **704 helper phage**: 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:
- **XPORT E. coli Host 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
SECTION 7: Handling and storage

XLOLR 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.

704 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.

7.3 Specific end use(s)
Recommendations:
- XPORT E. coli Host Strain: Industrial applications, Professional applications.
- XLOLR E. coli Strain: Industrial applications, Professional applications.
- 704 helper phage: Industrial applications, Professional applications.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPORT E. coli Host Strain</td>
<td>EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
<tr>
<td>XLOLR E. coli Strain</td>
<td>EH40/2005 WELs (United Kingdom (UK), 8/2018). TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
</tbody>
</table>

Recommended monitoring procedures:
If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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.
SECTION 8: Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLOLR E. coli Strain</td>
<td>DNEL</td>
<td>Short term Oral</td>
<td>126.65 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>DNEL</td>
<td>Long term Oral</td>
<td>126.65 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Short term Dermal</td>
<td>126.65 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>126.65 mg/kg bw/day</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Short term Dermal</td>
<td>295.52 mg/kg bw/day</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Dermal</td>
<td>295.52 mg/kg bw/day</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Short term Inhalation</td>
<td>443.28 mg/m³</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>443.28 mg/m³</td>
<td>General population</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Short term Inhalation</td>
<td>2068.62 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
<tr>
<td></td>
<td>DNEL</td>
<td>Long term Inhalation</td>
<td>2068.62 mg/m³</td>
<td>Workers</td>
<td>Systemic</td>
</tr>
</tbody>
</table>

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

9.1 Information on basic physical and chemical properties

Appearance

**Physical state**
- XPORT E. coli Host Strain Liquid.
- XLOLR E. coli Strain Liquid.
- 704 helper phage Liquid.

**Colour**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Odour**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Odour threshold**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**pH**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Melting point/freezing point**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Initial boiling point and boiling range**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Flash point**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Evaporation rate**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Flammability (solid, gas)**
- XPORT E. coli Host Strain Not applicable.
- XLOLR E. coli Strain Not applicable.
- 704 helper phage Not applicable.

**Upper/lower flammability or explosive limits**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Vapour pressure**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Vapour density**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.

**Relative density**
- XPORT E. coli Host Strain Not available.
- XLOLR E. coli Strain Not available.
- 704 helper phage Not available.
SECTION 9: Physical and chemical properties

Solubility(ies) : XPORT E. coli Host Strain Easily soluble in the following materials: cold water and hot water.
                   XLOLR E. coli Strain Soluble in the following materials: cold water and hot water.
                   704 helper phage Easily soluble in the following materials: cold water and hot water.

Partition coefficient: n-octanol/water : XPORT E. coli Host Strain Not available.
                                      XLOLR E. coli Strain Not available.
                                      704 helper phage Not available.

Auto-ignition temperature : XPORT E. coli Host Strain Not available.
                          XLOLR E. coli Strain Not available.
                          704 helper phage Not available.

Decomposition temperature : XPORT E. coli Host Strain Not available.
                           XLOLR E. coli Strain Not available.
                           704 helper phage Not available.

Viscosity : XPORT E. coli Host Strain Not available.
            XLOLR E. coli Strain Not available.
            704 helper phage Not available.

Explosive properties : XPORT E. coli Host Strain Not available.
                      XLOLR E. coli Strain Not available.
                      704 helper phage Not available.

Oxidising properties : XPORT E. coli Host Strain Not available.
                     XLOLR E. coli Strain Not available.
                     704 helper phage Not available.

9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : XPORT E. coli Host Strain No specific test data related to reactivity available for this product or its ingredients.
                   XLOLR E. coli Strain No specific test data related to reactivity available for this product or its ingredients.
                   704 helper phage No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : XPORT E. coli Host Strain The product is stable.
                         XLOLR E. coli Strain The product is stable.
                         704 helper phage The product is stable.

10.3 Possibility of hazardous reactions : XPORT E. coli Host Strain Under normal conditions of storage and use, hazardous reactions will not occur.
                                       XLOLR E. coli Strain Under normal conditions of storage and use, hazardous reactions will not occur.
                                       704 helper phage Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : XPORT E. coli Host Strain No specific data.
                         XLOLR E. coli Strain No specific data.
                         704 helper phage No specific data.
SECTION 10: Stability and reactivity

10.5 Incompatible materials

- XPORT E. coli Host Strain
- XLOLR E. coli Strain
- 704 helper phage

May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products

- XPORT E. coli Host Strain
- XLOLR E. coli Strain
- 704 helper phage

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

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLOLR E. coli Strain</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>3000 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Oral (mg/kg)</th>
<th>Dermal (mg/kg)</th>
<th>Inhalation (gases) (ppm)</th>
<th>Inhalation (vapours) (mg/l)</th>
<th>Inhalation (dusts and mists) (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLOLR E. coli Strain</td>
<td>3000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLOLR E. coli Strain</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>10 mg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 mg</td>
<td>-</td>
</tr>
</tbody>
</table>

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.
### SECTION 11: Toxicological information

#### Information on likely routes of exposure:

- **XPORt E. coli Host Strain**
- **XLORL E. coli Strain**
- **704 helper phage**

#### Potential acute health effects:

- **Inhalation**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

- **Ingestion**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

- **Skin contact**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

- **Eye contact**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

#### Symptoms related to the physical, chemical and toxicological characteristics:

- **Inhalation**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

- **Ingestion**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

- **Skin contact**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

- **Eye contact**
  - XPORt E. coli Host Strain
  - XLORL E. coli Strain
  - 704 helper phage

#### 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**
  - **General**
    - XPORt E. coli Host Strain
    - XLORL E. coli Strain
    - 704 helper phage

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**Date of issue/Date of revision**: 01/04/2020  
**Date of previous issue**: 22/01/2018  
**Version**: 2
SECTION 11: Toxicological information

Carcinogenicity: XPORT E. coli Host Strain, No known significant effects or critical hazards.
XLOLR E. coli Strain, No known significant effects or critical hazards.
704 helper phage, No known significant effects or critical hazards.

Mutagenicity: XPORT E. coli Host Strain, No known significant effects or critical hazards.
XLOLR E. coli Strain, No known significant effects or critical hazards.
704 helper phage, No known significant effects or critical hazards.

Teratogenicity: XPORT E. coli Host Strain, No known significant effects or critical hazards.
XLOLR E. coli Strain, No known significant effects or critical hazards.
704 helper phage, No known significant effects or critical hazards.

Developmental effects: XPORT E. coli Host Strain, No known significant effects or critical hazards.
XLOLR E. coli Strain, No known significant effects or critical hazards.
704 helper phage, No known significant effects or critical hazards.

Fertility effects: XPORT E. coli Host Strain, No known significant effects or critical hazards.
XLOLR E. coli Strain, No known significant effects or critical hazards.
704 helper phage, No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLOLR E. coli Strain</td>
<td>Sodium chloride</td>
<td>Acute EC50 4.74 g/L Fresh water</td>
<td>Algae - Chlamydomonas reinhardtii</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute EC50 519.6 mg/l Fresh water</td>
<td>Crustaceans - Cypris subglobosa</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute IC50 6.87 g/L Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute LC50 1000000 μg/l Fresh water</td>
<td>Fish - Morone saxatilis - Larvae</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic LC10 781 mg/l Fresh water</td>
<td>Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic NOEC 6 g/L Fresh water</td>
<td>Aquatic plants - Lemna minor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic NOEC 0.314 g/L Fresh water</td>
<td>Daphnia - Daphnia pulex</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chronic NOEC 100 mg/l Fresh water</td>
<td>Fish - Gambusia holbrooki - Adult</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
Soil/water partition coefficient (KOC) : 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 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

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
</table>

| 14.2 UN proper shipping name |        | -    | -    |
| 14.3 Transport hazard class(es) | -      | -    | -    |

| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. |

Additional information

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

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

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.
**SECTION 15: Regulatory information**

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

<table>
<thead>
<tr>
<th>Label</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPORT E. coli Host Strain</td>
<td></td>
</tr>
<tr>
<td>XLOLR E. coli Strain</td>
<td></td>
</tr>
<tr>
<td>704 helper phage</td>
<td></td>
</tr>
</tbody>
</table>

**Other EU regulations**

- **Ozone depleting substances (1005/2009/EU)**
  Not listed.
- **Prior Informed Consent (PIC) (649/2012/EU)**
  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**

<table>
<thead>
<tr>
<th>Country</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Canada</td>
<td>Not determined.</td>
</tr>
<tr>
<td>China</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Europe</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Japan</td>
<td><strong>Japan inventory (ENCS)</strong>: All components are listed or exempted. <strong>Japan inventory (ISHL)</strong>: All components are listed or exempted.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Taiwan</td>
<td>All components are listed or exempted.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Turkey</td>
<td>Not determined.</td>
</tr>
<tr>
<td>United States</td>
<td>All components are active or exempted.</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

**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]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
<td></td>
</tr>
</tbody>
</table>

Full text of abbreviated H statements

XLOLR E. coli Strain
H319
Causes serious eye irritation.

Full text of classifications [CLP/GHS]

XLOLR E. coli Strain
Eye Irrit. 2
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Date of issue/ Date of revision: 01/04/2020
Date of previous issue: 22/01/2018
Version: 2

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