SAFETY DATA SHEET
Gigapack III XL-7 Packaging Extract, Part Number 200208

Section 1. Identification

Product identifier : Gigapack III XL-7 Packaging Extract, Part Number 200208
Part No. (Chemical Kit) : 200208
Part No. : Gigapack III XL-11 packaging extract 200207-41
Wild-Type Lambda DNA c1857ind 1 Sam7 246203-51
VCS257 E. coli Strain 200256-51

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

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

Analytical reagent.
Gigapack III XL-11 packaging extract 0.275 ml (11 x 0.025 ml)
Wild-Type Lambda DNA c1857ind 1 Sam7 0.005 ml (1.05 µg 0.21 µg/µl)
VCS257 E. coli Strain 1 ml

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.
Section 2. Hazard(s) identification

Storage:
- Gigapack III XL - 11 packaging extract: Not applicable.
- Wild-Type Lambda DNA c1857ind 1 Sam7: Not applicable.
- VCS257 E. coli Strain: Not applicable.

Disposal:
- Gigapack III XL - 11 packaging extract: Not applicable.
- Wild-Type Lambda DNA c1857ind 1 Sam7: Not applicable.
- VCS257 E. coli Strain: Not applicable.

Other hazards which do not result in classification:
- Gigapack III XL - 11 packaging extract: None known.
- Wild-Type Lambda DNA c1857ind 1 Sam7: None known.
- VCS257 E. coli Strain: None known.

Section 3. Composition and ingredient information

Substance/mixture:
- Gigapack III XL - 11 packaging extract: Mixture
- Wild-Type Lambda DNA c1857ind 1 Sam7: Mixture
- VCS257 E. coli Strain: Mixture

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>% (w/w)</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gigapack III XL - 11 packaging extract</td>
<td>≤10</td>
<td>57-50-1</td>
</tr>
<tr>
<td>Sucrose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCS257 E. coli Strain</td>
<td>≥10 - ≤30</td>
<td>56-81-5</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></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.

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

Section 4. First aid measures

Description of necessary first aid measures:

Eye contact:
- Gigapack III XL - 11 packaging extract: 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.
- Wild-Type Lambda DNA c1857ind 1 Sam7: 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.
- VCS257 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.
## Section 4. First aid measures

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Wild-Type Lambda DNA c1857ind 1 Sam7</th>
<th>VCS257 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gigapack III XL - 11 packaging extract</td>
<td>Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.</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>Skin contact</td>
<td>Wild-Type Lambda DNA c1857ind 1 Sam7</td>
<td>VCS257 E. coli Strain</td>
</tr>
<tr>
<td>Gigapack III XL - 11 packaging extract</td>
<td>Wash out mouth with water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
<td>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Wild-Type Lambda DNA c1857ind 1 Sam7</td>
<td>VCS257 E. coli Strain</td>
</tr>
<tr>
<td>Gigapack III XL - 11 packaging extract</td>
<td>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.</td>
<td>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.</td>
</tr>
</tbody>
</table>

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>Wild-Type Lambda DNA c1857ind 1 Sam7</th>
<th>VCS257 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>Wild-Type Lambda DNA c1857ind 1 Sam7</th>
<th>VCS257 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skin contact</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>Wild-Type Lambda DNA c1857ind 1 Sam7</th>
<th>VCS257 E. coli Strain</th>
</tr>
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<tbody>
<tr>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td></td>
</tr>
</tbody>
</table>
Section 4. First aid measures

Ingestion: 
- Gigapack III XL - 11 packaging extract
- Wild-Type Lambda DNA c1857ind 1 Sam7
- VCS257 E. coli Strain

Protection of first-aiders:
No action shall be taken involving any personal risk or without suitable training.

Over-exposure signs/symptoms:
- Wild-Type Lambda DNA c1857ind 1 Sam7
- VCS257 E. coli Strain

No action shall be taken involving any personal risk or without suitable training.

Notes to physician:
- Gigapack III XL - 11 packaging extract
- Wild-Type Lambda DNA c1857ind 1 Sam7
- VCS257 E. coli Strain

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments:
- Gigapack III XL - 11 packaging extract
- Wild-Type Lambda DNA c1857ind 1 Sam7
- VCS257 E. coli Strain

No specific treatment.

Indication of immediate medical attention and special treatment needed, if necessary:
- Gigapack III XL - 11 packaging extract
- Wild-Type Lambda DNA c1857ind 1 Sam7
- VCS257 E. coli Strain

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media:
- Gigapack III XL - 11 packaging extract
- Wild-Type Lambda DNA c1857ind 1 Sam7
- VCS257 E. coli Strain

Use an extinguishing agent suitable for the surrounding fire.

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Date of previous issue: 22/04/2014
Version: 4/16
Section 5. Firefighting measures

Unsuitable extinguishing media:

- **Gigapack III XL - 11 packaging extract**: None known.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: None known.
- **VCS257 E. coli Strain**: None known.

Specific hazards arising from the chemical:

- **Gigapack III XL - 11 packaging extract**: In a fire or if heated, a pressure increase will occur and the container may burst.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: In a fire or if heated, a pressure increase will occur and the container may burst.
- **VCS257 E. coli Strain**: In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products:

- **Gigapack III XL - 11 packaging extract**: Decomposition products may include the following materials:
  - Carbon dioxide
  - Carbon monoxide

- **Wild-Type Lambda DNA c1857ind 1 Sam7**: No specific data.

- **VCS257 E. coli Strain**: Decomposition products may include the following materials:
  - Carbon dioxide
  - Carbon monoxide
  - Halogenated compounds
  - Metal oxide/oxides

Special protective actions for fire-fighters:

- **Gigapack III XL - 11 packaging extract**: 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.

- **Wild-Type Lambda DNA c1857ind 1 Sam7**: 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.

- **VCS257 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:

- **Gigapack III XL - 11 packaging extract**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

- **VCS257 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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

- **Gigapack III XL - 11 packaging extract**: 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.

- **Wild-Type Lambda DNA c1857ind 1 Sam7**: 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.

Date of issue/Date of revision: 25/11/2016
Date of previous issue: 22/04/2014
Version: 4
Section 6. Accidental release measures

personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

VCS257 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: Gigapack III XL - 11 packaging extract
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".

Wild-Type Lambda DNA c1857ind 1 Sam7
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".

VCS257 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".

Environmental precautions: Gigapack III XL - 11 packaging extract
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).

Wild-Type Lambda DNA c1857ind 1 Sam7
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).

VCS257 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).

Methods and material for containment and cleaning up

Methods for cleaning up: Gigapack III XL - 11 packaging extract
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.

Wild-Type Lambda DNA c1857ind 1 Sam7
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.

VCS257 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.
### Section 7. Handling and storage

#### Precautions for safe handling

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>Put on appropriate personal protective equipment (see Section 8).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wild-Type Lambda DNA c1857ind 1 Sam7</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
<tr>
<td></td>
<td>VCS257 E. coli Strain</td>
<td>Put on appropriate personal protective equipment (see Section 8).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advice on general occupational hygiene</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild-Type Lambda DNA c1857ind 1 Sam7</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>VCS257 E. coli Strain</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conditions for safe storage, including any incompatibilities</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild-Type Lambda DNA c1857ind 1 Sam7</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>VCS257 E. coli Strain</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gigapack III XL - 11 packaging extract</td>
<td>Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Sucrose</td>
<td></td>
</tr>
<tr>
<td>VCS257 E. coli Strain</td>
<td>Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls:

User operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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
- **Gigapack III XL - 11 packaging extract**: Liquid.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Liquid.
- **VCS257 E. coli Strain**: Liquid.

#### Colour
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Not available.
- **VCS257 E. coli Strain**: Not available.

#### Odour
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Not available.
- **VCS257 E. coli Strain**: Not available.

#### Odour threshold
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Not available.
- **VCS257 E. coli Strain**: Not available.

#### pH
- **Gigapack III XL - 11 packaging extract**: 8
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: 7
- **VCS257 E. coli Strain**: 7

#### Melting point
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: 0°C (32°F)
- **VCS257 E. coli Strain**: Not available.

#### Boiling point
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: 100°C (212°F)
- **VCS257 E. coli Strain**: Not available.

#### Flash point
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Not available.
- **VCS257 E. coli Strain**: Not available.

#### Evaporation rate
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Not available.
- **VCS257 E. coli Strain**: Not available.

#### Flammability (solid, gas)
- **Gigapack III XL - 11 packaging extract**: Not applicable.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Not applicable.
- **VCS257 E. coli Strain**: Not applicable.

#### Lower and upper explosive (flammable) limits
- **Gigapack III XL - 11 packaging extract**: Not available.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: Not available.
- **VCS257 E. coli Strain**: Not available.
### Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>Wild-Type Lambda DNA c1857ind 1 Sam7</th>
<th>VCS257 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
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<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td><strong>Partition coefficient: n-octanol/water</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

### Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Gigapack III XL - 11 packaging extract</th>
<th>Wild-Type Lambda DNA c1857ind 1 Sam7</th>
<th>VCS257 E. coli Strain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reactivity</strong></td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td><strong>Chemical stability</strong></td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
</tbody>
</table>
Section 10. Stability and reactivity

Possibility of hazardous reactions

- **Gigapack III XL - 11 packaging extract**
  - Wild-Type Lambda DNA c1857 ind 1 Sam7
  - VCS257 E. coli Strain
  Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

- **Gigapack III XL - 11 packaging extract**
  - Wild-Type Lambda DNA c1857 ind 1 Sam7
  - VCS257 E. coli Strain
  No specific data.

Incompatible materials

- **Gigapack III XL - 11 packaging extract**
  - Wild-Type Lambda DNA c1857 ind 1 Sam7
  - VCS257 E. coli Strain
  May react or be incompatible with oxidising materials.

Hazardous decomposition products

- **Gigapack III XL - 11 packaging extract**
  - Wild-Type Lambda DNA c1857 ind 1 Sam7
  - VCS257 E. coli Strain
  Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

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>Gigapack III XL - 11 packaging extract</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>29700 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Sucrose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCS257 E. coli Strain</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>12600 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></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>VCS257 E. coli Strain</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sensitisation
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Date of issue/Date of revision: 25/11/2016
Date of previous issue: 22/04/2014
Version: 4
11/16
Section 11. Toxicological information

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:
- **Inhalation**: Gigapack III XL - 11 packaging extract, Wild-Type Lambda DNA c1857ind 1 Sam7, VCS257 E. coli Strain. No known significant effects or critical hazards.
- **Wild-Type Lambda DNA c1857ind 1 Sam7**: No known significant effects or critical hazards.
- **VCS257 E. coli Strain**: No known significant effects or critical hazards.

Potential acute health effects:
- **Eye contact**: Gigapack III XL - 11 packaging extract, Wild-Type Lambda DNA c1857ind 1 Sam7, VCS257 E. coli Strain. No known significant effects or critical hazards.
- **Inhalation**: Gigapack III XL - 11 packaging extract, Wild-Type Lambda DNA c1857ind 1 Sam7, VCS257 E. coli Strain. No known significant effects or critical hazards.
- **Skin contact**: Gigapack III XL - 11 packaging extract, Wild-Type Lambda DNA c1857ind 1 Sam7, VCS257 E. coli Strain. No known significant effects or critical hazards.
- **Ingestion**: Gigapack III XL - 11 packaging extract, Wild-Type Lambda DNA c1857ind 1 Sam7, VCS257 E. coli Strain. No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics:
- **Eye contact**: No specific data.
- **Inhalation**: No specific data.
- **Skin contact**: No specific data.

Date of issue/Date of revision: 25/11/2016
Date of previous issue: 22/04/2014
Version: 4
Section 11. Toxicological information

| Ingestion | Gigapack III XL - 11 packaging extract | No specific data. |
| Wild-Type Lambda DNA c1857ind 1 Sam7 | No specific data. |
| VCS257 E. coli Strain | 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**: Gigapack III XL - 11 packaging extract
- No known significant effects or critical hazards.
- Wild-Type Lambda DNA c1857ind 1 Sam7
- No known significant effects or critical hazards.
- VCS257 E. coli Strain
- No known significant effects or critical hazards.

**Carcinogenicity**: Gigapack III XL - 11 packaging extract
- No known significant effects or critical hazards.
- Wild-Type Lambda DNA c1857ind 1 Sam7
- No known significant effects or critical hazards.
- VCS257 E. coli Strain
- No known significant effects or critical hazards.

**Mutagenicity**: Gigapack III XL - 11 packaging extract
- No known significant effects or critical hazards.
- Wild-Type Lambda DNA c1857ind 1 Sam7
- No known significant effects or critical hazards.
- VCS257 E. coli Strain
- No known significant effects or critical hazards.

**Teratogenicity**: Gigapack III XL - 11 packaging extract
- No known significant effects or critical hazards.
- Wild-Type Lambda DNA c1857ind 1 Sam7
- No known significant effects or critical hazards.
- VCS257 E. coli Strain
- No known significant effects or critical hazards.

**Developmental effects**: Gigapack III XL - 11 packaging extract
- No known significant effects or critical hazards.
- Wild-Type Lambda DNA c1857ind 1 Sam7
- No known significant effects or critical hazards.
- VCS257 E. coli Strain
- No known significant effects or critical hazards.

**Fertility effects**: Gigapack III XL - 11 packaging extract
- No known significant effects or critical hazards.
- Wild-Type Lambda DNA c1857ind 1 Sam7
- No known significant effects or critical hazards.
- VCS257 E. coli Strain
- No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**
Not available.
Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCS257 E. coli Strain</td>
<td>Acute LC50 54000 mg/l Fresh water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

Not available.

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gigapack III XL - 11 packaging extract</td>
<td>-3.7</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Sucrose</td>
<td>-1.76</td>
<td>-</td>
<td>low</td>
</tr>
</tbody>
</table>

**Mobility in soil**

Soil/water partition coefficient (K<sub>oc</sub>) : 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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

**Regulatory 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

Model Work Health and Safety Regulations - Scheduled Substances

Australia inventory (AICS) : Not determined.

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.

International lists

National inventory

Canada : At least one component is not listed in DSL but all such components are listed in NDSL.

China : Not determined.

Europe : All components are listed or exempted.

Japan : Japan inventory (ENCS): Not determined.

Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : All components are listed or exempted.

Turkey : Not determined.

United States : All components are listed or exempted.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 25/11/2016

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Version : 4

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


NOHSC = National Occupational Health and Safety Commission

SUSMP = Standard Uniform Schedule of Medicine and Poisons
Section 16. Any other relevant information

UN = United Nations

Procedure used to derive the classification

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

References: Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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