

SAFETY DATA SHEET



Gigapack III Plus-4 Packaging Extract, Part Number 200204

Section 1. Identification

Product identifier : Gigapack III Plus-4 Packaging Extract, Part Number 200204
Part No. (Chemical Kit) : 200204
Part No. : Gigapack III packaging extract 200201-41
 Wild-Type Lambda DNA c1857ind 1 246203-51
 Sam7
 VCS257 E. coli Strain 200256-51

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

Analytical reagent.

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

GHS label elements

| | | |
|---------------------------------|--------------------------------------|---|
| Signal word | : Gigapack III packaging extract | No signal word. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | No signal word. |
| | VCS257 E. coli Strain | No signal word. |
| Hazard statements | : Gigapack III 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. |
| Precautionary statements | | |
| Prevention | : Gigapack III packaging extract | Not applicable. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not applicable. |
| | VCS257 E. coli Strain | Not applicable. |
| Response | : Gigapack III packaging extract | Not applicable. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not applicable. |
| | VCS257 E. coli Strain | Not applicable. |

Section 2. Hazard(s) identification

| | | |
|--|---|---|
| Storage | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not applicable. Not applicable. Not applicable. |
| Disposal | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not applicable. Not applicable. Not applicable. |
| Supplemental label elements | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not applicable. Not applicable. Not applicable. |
| Other hazards which do not result in classification | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | None known. None known. None known. |

Section 3. Composition and ingredient information

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

CAS number/other identifiers

| Ingredient name | % (w/w) | CAS number |
|---|-----------|------------|
| Gigapack III packaging extract Sucrose | ≤10 | 57-50-1 |
| VCS257 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 | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 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. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
|--------------------|---|---|

Section 4. First aid measures

| | | |
|---------------------|--|---|
| Inhalation | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| Skin contact | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| Ingestion | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 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. 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. 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 | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Inhalation | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Section 4. First aid measures

| | | |
|------------------|--------------------------------------|---|
| Ingestion | : Gigapack III 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. |

Over-exposure signs/symptoms

| | | |
|---------------------|--------------------------------------|-------------------|
| Eye contact | : Gigapack III packaging extract | No specific data. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | No specific data. |
| | VCS257 E. coli Strain | No specific data. |
| Inhalation | : Gigapack III packaging extract | No specific data. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | No specific data. |
| | VCS257 E. coli Strain | No specific data. |
| Skin contact | : Gigapack III packaging extract | No specific data. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | No specific data. |
| | VCS257 E. coli Strain | No specific data. |
| Ingestion | : Gigapack III packaging extract | No specific data. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | No specific data. |
| | VCS257 E. coli Strain | No specific data. |

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

| | | |
|-----------------------------------|--------------------------------------|---|
| Notes to physician | : Gigapack III packaging extract | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | VCS257 E. coli Strain | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : Gigapack III packaging extract | No specific treatment. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | No specific treatment. |
| | VCS257 E. coli Strain | No specific treatment. |
| Protection of first-aiders | : Gigapack III packaging extract | No action shall be taken involving any personal risk or without suitable training. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | No action shall be taken involving any personal risk or without suitable training. |
| | VCS257 E. coli Strain | 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 | : Gigapack III packaging extract | Use an extinguishing agent suitable for the surrounding fire. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Use an extinguishing agent suitable for the surrounding fire. |
| | VCS257 E. coli Strain | Use an extinguishing agent suitable for the surrounding fire. |

Section 5. Firefighting measures

| | | |
|---|--------------------------------------|---|
| Unsuitable extinguishing media | : Gigapack III 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 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 packaging extract | Decomposition products may include the following materials: carbon dioxide carbon monoxide No specific data. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides |
| | 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 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 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 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 |

Section 6. Accidental release measures

| | | |
|--|--------------------------------------|--|
| | VCS257 E. coli Strain | personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. 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 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 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). |
| <u>Methods and material for containment and cleaning up</u> | | |
| Methods for cleaning up | : Gigapack III 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

Protective measures

- : Gigapack III packaging extract
Wild-Type Lambda DNA
c1857ind 1 Sam7
VCS257 E. coli Strain
- Put on appropriate personal protective equipment (see Section 8).
Put on appropriate personal protective equipment (see Section 8).
Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

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

Conditions for safe storage, including any incompatibilities

- : Gigapack III packaging extract
- Wild-Type Lambda DNA
c1857ind 1 Sam7
- VCS257 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.
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.
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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|---|---|
| Gigapack III packaging extract Sucrose | Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours. |
| VCS257 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.
- 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** :
- | | |
|--------------------------------|---------|
| Gigapack III packaging extract | Liquid. |
| Wild-Type Lambda DNA | Liquid. |
| c1857ind 1 Sam7 | |
| VCS257 E. coli Strain | Liquid. |

Section 9. Physical and chemical properties

| | | |
|---|--------------------------------------|-----------------|
| Colour | : Gigapack III packaging extract | Not available. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not available. |
| | VCS257 E. coli Strain | Not available. |
| Odour | : Gigapack III packaging extract | Not available. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not available. |
| | VCS257 E. coli Strain | Not available. |
| Odour threshold | : Gigapack III packaging extract | Not available. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not available. |
| | VCS257 E. coli Strain | Not available. |
| pH | : Gigapack III packaging extract | 8 |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | 7 |
| | VCS257 E. coli Strain | 7 |
| Melting point | : Gigapack III 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 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 packaging extract | Not available. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not available. |
| | VCS257 E. coli Strain | Not available. |
| Evaporation rate | : Gigapack III packaging extract | Not available. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not available. |
| | VCS257 E. coli Strain | Not available. |
| Flammability (solid, gas) | : Gigapack III 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 packaging extract | Not available. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not available. |
| | VCS257 E. coli Strain | Not available. |
| Vapour pressure | : Gigapack III packaging extract | Not available. |
| | Wild-Type Lambda DNA c1857ind 1 Sam7 | Not available. |
| | VCS257 E. coli Strain | Not available. |
| Vapour density | : Gigapack III 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

| | | |
|---|---|--|
| Relative density | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not available. Not available. Not available. |
| Solubility | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Easily soluble in the following materials: cold water and hot water. Easily 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 | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not available. Not available. Not available. |
| Auto-ignition temperature | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not available. Not available. Not available. |
| Decomposition temperature | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not available. Not available. Not available. |
| Viscosity | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not available. Not available. Not available. |

Section 10. Stability and reactivity

| | | |
|---|---|--|
| Reactivity | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | 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 | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | The product is stable. The product is stable. The product is stable. |
| Possibility of hazardous reactions | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | 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 | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No specific data. No specific data. No specific data. |

Section 10. Stability and reactivity

| | | |
|---|---|--|
| Incompatible materials | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | 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 | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | 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 |
|---|-----------|---------|-------------|----------|
| Gigapack III packaging extract Sucrose | LD50 Oral | Rat | 29700 mg/kg | - |
| VCS257 E. coli Strain Glycerol | LD50 Oral | Rat | 12600 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-----------------------------------|----------------------|---------|-------|-------------------------|-------------|
| VCS257 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.

Section 11. Toxicological information

| | | |
|---|---|---|
| Information on likely routes of exposure | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | Not available. Not available. Routes of entry anticipated: Oral, Dermal, Inhalation. |
| Potential acute health effects | | |
| Eye contact | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Inhalation | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Ingestion | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

| | | |
|---------------------|---|---|
| Eye contact | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No specific data. No specific data. No specific data. |
| Inhalation | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No specific data. No specific data. No specific data. |
| Skin contact | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No specific data. No specific data. No specific data. |
| Ingestion | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | 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.

Section 11. Toxicological information

Potential chronic health effects

Not available.

| | | |
|------------------------------|--|---|
| General | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Carcinogenicity | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Mutagenicity | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Teratogenicity | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Developmental effects | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Fertility effects | : Gigapack III packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain | 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

Not available.

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------------------|-----------------------------------|----------------------------|----------|
| ✓ VCS257 E. coli Strain Glycerol | Acute LC50 54000 mg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

Not available.

Bioaccumulative potential

Section 12. Ecological information

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-----|-----------|
| Gigapack III packaging extract Sucrose | -3.7 | - | low |
| VCS257 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 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

No listed substance

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.

Section 15. Regulatory information

[Rotterdam Convention on Prior Inform 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 | : <input checked="" type="checkbox"/> Japan inventory (ENCS) : Not determined. Japan inventory (ISHL) : Not determined. |
| Malaysia | : <input checked="" type="checkbox"/> Not determined. |
| New Zealand | : <input checked="" type="checkbox"/> All components are listed or exempted. |
| Philippines | : <input checked="" type="checkbox"/> Not determined. |
| Republic of Korea | : <input checked="" type="checkbox"/> Not determined. |
| Taiwan | : <input checked="" type="checkbox"/> All components are listed or exempted. |
| Turkey | : <input checked="" type="checkbox"/> Not determined. |
| United States | : All components are listed or exempted. |

Section 16. Any other relevant information

[History](#)

Date of issue/Date of revision : 29/02/2016

Date of previous issue : 17/04/2014.

Version : 3.01

[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](#)

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