

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

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

Identified uses : Analytical reagent.

Gigapack III XL - 11 packaging extract 0.175 ml
 Wild-Type Lambda DNA c1857ind 1 Sam7 0.005 ml (1.05 µg 0.21 µg/µl)
 VCS257 E. coli Strain 1 ml

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

Emergency telephone number (with hours of operation) : CHEMTREC®: 1-800-424-9300

Section 2. Hazard identification

Classification of the substance or mixture

VCS257 E. coli Strain
 H320 EYE IRRITATION - Category 2B

GHS label elements

Signal word : Gigapack III XL - 11 packaging extract No signal word.
 Wild-Type Lambda DNA c1857ind 1 Sam7 No signal word.
 VCS257 E. coli Strain Warning

Hazard statements : 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 H320 - Causes eye irritation.

Precautionary statements

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

Section 2. Hazard identification

Response	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	Not applicable. Not applicable. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	Not applicable. Not applicable. Not applicable.
Disposal	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	Not applicable. Not applicable. Not applicable.
Supplemental label elements	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	None known. None known. None known.
Other hazards which do not result in classification	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 8% None known. None known. None known.

Section 3. Composition/information on ingredients

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

Ingredient name	Synonyms	% (w/w)	CAS number
VCS257 E. coli Strain			
Glycerol	Glycerol	≥10 - ≤30	56-81-5



Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified 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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
Inhalation	: Gigapack III XL - 11 packaging extract	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	VCS257 E. coli Strain	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	: Gigapack III XL - 11 packaging extract	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	VCS257 E. coli Strain	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:  Gigapack III XL - 11 packaging extract	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	VCS257 E. coli Strain	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention

Section 4. First-aid measures

if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

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.

Over-exposure signs/symptoms

Eye contact	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness
Inhalation	: Gigapack III XL - 11 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 XL - 11 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 XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	No specific data. No specific data. No specific data.

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

Section 4. First-aid measures

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. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. No specific treatment. No specific treatment.
Protection of first-aiders	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting 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. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	None known. None known. None known.
Specific hazards arising from the chemical	: Gigapack III XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. 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 Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide No specific data. Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides

Section 5. Fire-fighting measures

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 spilled 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 spilled 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: Gigapack III XL - 11 packaging extract	If specialized 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 specialized 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 specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the

Section 6. Accidental release measures

		information in "For non-emergency personnel".
Environmental precautions	: Gigapack III XL - 11 packaging extract	Avoid dispersal of spilled 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 spilled 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 spilled 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 materials 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

Protective measures	: Gigapack III XL - 11 packaging extract	Put on appropriate personal protective equipment (see Section 8).
	Wild-Type Lambda DNA c1857ind 1 Sam7	Put on appropriate personal protective equipment (see Section 8).
	VCS257 E. coli Strain	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

Advice on general occupational hygiene

: Gigapack III XL - 11 packaging extract

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.

Wild-Type Lambda DNA c1857ind 1 Sam7

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.

VCS257 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.

Conditions for safe storage, including any incompatibilities

: Gigapack III XL - 11 packaging extract

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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Wild-Type Lambda DNA c1857ind 1 Sam7

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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
VCS257 E. coli Strain Glycerol	CA Alberta Provincial (Canada, 6/2018). OEL: 10 mg/m ³ 8 hours. Form: Mist CA Quebec Provincial (Canada, 6/2022). TWAEV: 10 mg/m ³ 8 hours. Form: mist CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m ³ 15 minutes. Form: mist TWA: 10 mg/m ³ 8 hours. Form: mist CA British Columbia Provincial (Canada, 6/2023). TWA: 3 mg/m ³ 8 hours. Form: respirable mist TWA: 10 mg/m ³ 8 hours. Form: total mist

Biological exposure indices

No exposure indices known.

- 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 and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state	: Gigapack III XL - 11 packaging extract	Liquid.																											
	Wild-Type Lambda DNA c1857ind 1 Sam7	Liquid.																											
	VCS257 E. coli Strain	Liquid.																											
Color	: Gigapack III XL - 11 packaging extract	Not available.																											
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.																											
	VCS257 E. coli Strain	Not available.																											
Odor	: Gigapack III XL - 11 packaging extract	Not available.																											
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not available.																											
	VCS257 E. coli Strain	Not available.																											
Odor 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/freezing 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, initial boiling point, and boiling range	: 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	: <table border="1" data-bbox="516 1451 1513 1675"> <thead> <tr> <th rowspan="2">Ingredient name</th> <th colspan="3">Closed cup</th> <th colspan="3">Open cup</th> </tr> <tr> <th>°C</th> <th>°F</th> <th>Method</th> <th>°C</th> <th>°F</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>VCS257 E. coli Strain</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Glycerol</td> <td>-</td> <td>-</td> <td>-</td> <td>177</td> <td>350.6</td> <td>-</td> </tr> </tbody> </table>	Ingredient name	Closed cup			Open cup			°C	°F	Method	°C	°F	Method	VCS257 E. coli Strain							Glycerol	-	-	-	177	350.6	-	
	Ingredient name		Closed cup			Open cup																							
		°C	°F	Method	°C	°F	Method																						
VCS257 E. coli Strain																													
Glycerol	-	-	-	177	350.6	-																							
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	: Gigapack III XL - 11 packaging extract	Not applicable.																											
	Wild-Type Lambda DNA c1857ind 1 Sam7	Not applicable.																											
	VCS257 E. coli Strain	Not applicable.																											

Section 9. Physical and chemical properties and safety characteristics

Lower and upper explosion limit/flammability limit : Gigapack III XL - 11 packaging extract Not available.
 Wild-Type Lambda DNA Not available.
 c1857ind 1 Sam7
 VCS257 E. coli Strain Not available.

Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Gigapack III XL - 11 packaging extract						
water	17.5	2.3	-	92.258	12.3	-
Wild-Type Lambda DNA c1857ind 1 Sam7						
water	17.5	2.3	-	92.258	12.3	-
VCS257 E. coli Strain						
water	17.5	2.3	-	92.258	12.3	-
Glycerol	0.000075	0.00001	-	0.0025	0.00033	-

Relative vapor density : Gigapack III XL - 11 packaging extract Not available.
 Wild-Type Lambda DNA Not available.
 c1857ind 1 Sam7
 VCS257 E. coli Strain Not available.

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

Solubility(ies) :

Media	Result
Gigapack III XL - 11 packaging extract	
water	Soluble
Wild-Type Lambda DNA c1857ind 1 Sam7	
water	Soluble
VCS257 E. coli Strain	
water	Soluble

Partition coefficient: n-octanol/water : Gigapack III XL - 11 packaging extract Not applicable.
 Wild-Type Lambda DNA Not applicable.
 c1857ind 1 Sam7
 VCS257 E. coli Strain Not applicable.

Auto-ignition temperature :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	°C	°F	Method
VCS257 E. coli Strain			
Glycerol	370	698	-

Decomposition temperature : Gigapack III XL - 11 packaging extract Not available.

Wild-Type Lambda DNA Not available.

c1857ind 1 Sam7 Not available.

VCS257 E. coli Strain Not available.

Viscosity : Gigapack III XL - 11 packaging extract Not available.

Wild-Type Lambda DNA Not available.

c1857ind 1 Sam7 Not available.

VCS257 E. coli Strain Not available.

Particle characteristics

Median particle size : Gigapack III XL - 11 packaging extract Not applicable.

Wild-Type Lambda DNA Not applicable.

c1857ind 1 Sam7 Not applicable.

VCS257 E. coli Strain Not applicable.

Section 10. Stability and reactivity

Reactivity : Gigapack III XL - 11 packaging extract No specific test data related to reactivity available for this product or its ingredients.
Wild-Type Lambda DNA No specific test data related to reactivity available for this product or its ingredients.
c1857ind 1 Sam7 No specific test data related to reactivity available for this product or its ingredients.
VCS257 E. coli Strain No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Gigapack III XL - 11 packaging extract The product is stable.

Wild-Type Lambda DNA The product is stable.

c1857ind 1 Sam7 The product is stable.

VCS257 E. coli Strain The product is stable.

Possibility of hazardous reactions : Gigapack III XL - 11 packaging extract Under normal conditions of storage and use, hazardous reactions will not occur.
Wild-Type Lambda DNA Under normal conditions of storage and use, hazardous reactions will not occur.
c1857ind 1 Sam7 Under normal conditions of storage and use, hazardous reactions will not occur.
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 No specific data.

Wild-Type Lambda DNA No specific data.

c1857ind 1 Sam7 No specific data.

VCS257 E. coli Strain No specific data.

Incompatible materials : Gigapack III XL - 11 packaging extract May react or be incompatible with oxidizing materials.

Wild-Type Lambda DNA May react or be incompatible with oxidizing materials.

c1857ind 1 Sam7 May react or be incompatible with oxidizing materials.

VCS257 E. coli Strain May react or be incompatible with oxidizing materials.

Section 10. Stability and reactivity

Hazardous decomposition products	: Gigapack III XL - 11 packaging extract	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Wild-Type Lambda DNA c1857ind 1 Sam7	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	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

Product/ingredient name	Result	Species	Dose	Exposure
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 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Conclusion/Summary

Skin : Gigapack III packaging extract: May cause sensitization by skin contact.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	: Gigapack III XL - 11 packaging extract	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
	Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	Not available. Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Section 11. Toxicological information

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. No known significant effects or critical hazards. Causes eye irritation.
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. No known significant effects or critical hazards. 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. No known significant effects or critical hazards. 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. 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 XL - 11 packaging extract Wild-Type Lambda DNA c1857ind 1 Sam7 VCS257 E. coli Strain	No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness
Inhalation	: Gigapack III XL - 11 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 XL - 11 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 XL - 11 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 and also 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.
------------------------------------	------------------

Section 11. Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

General	: Gigapack III XL - 11 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 XL - 11 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 XL - 11 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.
Reproductive toxicity	: Gigapack III XL - 11 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

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
VCS257 E. coli Strain VCS257 E. coli Strain Glycerol	300000.0 12600	N/A N/A	N/A N/A	N/A N/A	N/A N/A

Other information : Gigapack III XL - 11 packaging extract Adverse symptoms may include the following: May cause skin sensitization.

Section 12. Ecological information

Toxicity

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

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
VCS257 E. coli Strain Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
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 minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

TDG / IMDG / IATA : Not regulated.

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 IMO instruments : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

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

Section 15. Regulatory information

Not listed.

Inventory list


- Canada** : At least one component is not listed in DSL but all such components are listed in NDSL.
- United States** : All components are active or exempted.

Section 16. Other information

History

- Date of issue/Date of revision** : 04/24/2024
- Date of previous issue** : 04/29/2021
- Version** : 7
- Key to abbreviations** : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 HPR = Hazardous Products Regulations
 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)
 N/A = Not available
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
 VCS257 E. coli Strain EYE IRRITATION - Category 2B	Calculation method

 Indicates information that has changed from previously issued version.

Notice to reader

Disclaimer: The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.