

SAFETY DATA SHEET

Gigapack III Gold-7 Packaging Extract, Catalog #200202

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

1.1 Product identifier

Product name : Gigapack III Gold-7 Packaging Extract, Catalog #200202

Part No. (Kit) : 200202

Part No. : Gigapack III packaging 200201-41
extract
λcl857 Sam7 control 246203-51
DNA
VCS 257 E. coli Host 200256-51
Strain

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

Identified uses	
Analytical reagent.	
Gigapack III packaging extract	0.175 ml
λcl857 Sam7 control DNA	0.005 ml
VCS 257 E. coli Host Strain	1.0 ml

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : Chemtrec: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Gigapack III packaging Mixture
extract
λcl857 Sam7 control Mixture
DNA
VCS 257 E. coli Host Mixture
Strain

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

VCS 257 E. coli**Host Strain**

H373i

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [kidneys] - Category 2

Ingredients of unknown ecotoxicity : Gigapack III packaging Percentage of the mixture consisting of ingredient(s) of
extract unknown hazards to the aquatic environment: 8%
λcl857 Sam7 control DNA Not applicable.
VCS 257 E. coli Host Not applicable.
Strain

Classification according to Directive 1999/45/EC [DPD]

Date of issue/Date of revision : 12/04/2012

SECTION 2: Hazards identification

Gigapack III packaging extract	The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
λcl857 Sam7 control DNA	The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
VCS 257 E. coli Host Strain	The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification	:	Gigapack III packaging extract	Not classified.
		λcl857 Sam7 control DNA	Not classified.
		VCS 257 E. coli Host Strain	Not classified.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word	:	Gigapack III packaging extract	No signal word.
		λcl857 Sam7 control DNA	No signal word.
		VCS 257 E. coli Host Strain	Warning

Hazard statements	:	Gigapack III packaging extract	No known significant effects or critical hazards.
		λcl857 Sam7 control DNA	No known significant effects or critical hazards.
		VCS 257 E. coli Host Strain	GHS08 - May cause damage to organs through prolonged or repeated exposure if inhaled. (kidneys)

Precautionary statements

Prevention	:	Gigapack III packaging extract	Not applicable.
		λcl857 Sam7 control DNA	Not applicable.
		VCS 257 E. coli Host Strain	Do not breathe vapour.
Response	:	Gigapack III packaging extract	Not applicable.
		λcl857 Sam7 control DNA	Not applicable.
		VCS 257 E. coli Host Strain	Get medical attention if you feel unwell.
Storage	:	Gigapack III packaging extract	Not applicable.
		λcl857 Sam7 control DNA	Not applicable.
		VCS 257 E. coli Host Strain	Not applicable.
Disposal	:	Gigapack III packaging extract	Not applicable.
		λcl857 Sam7 control DNA	Not applicable.
		VCS 257 E. coli Host Strain	Not applicable.
Hazardous ingredients	:	VCS 257 E. coli Host Strain	
		Glycerol	

SECTION 2: Hazards identification

Supplemental label elements	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Safety data sheet available for professional user on request. Safety data sheet available for professional user on request. Safety data sheet available for professional user on request.
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Special packaging requirements

Tactile warning of danger	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not applicable. Not applicable. Not applicable.
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2.3 Other hazards

Other hazards which do not result in classification	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
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SECTION 3: Composition/information on ingredients

Substance/mixture	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Mixture Mixture Mixture
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Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Gigapack III packaging extract Sucrose	EC: 200-334-9 CAS: 57-50-1	5-10	Not classified.	STOT RE 2, H373o	[1] [2]
VCS 257 E. coli Host Strain Glycerol	EC: 200-289-5 CAS: 56-81-5	15-20	Not classified.	STOT RE 2, H373i	[1] [2]
Sodium chloride	EC: 231-598-3 CAS: 7647-14-5	1-5	Xi; R36	Eye Irrit. 2, H319	[1]
			See section 16 for the full text of the R-phrases declared above	See Section 16 for the full text of the H statements declared above.	

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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

SECTION 4: First aid measures**4.1 Description of first aid measures**

Eye contact	:	Gigapack III 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.
		λcl857 Sam7 control DNA	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.
		VCS 257 E. coli Host 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. Get medical attention following exposure or if feeling unwell.
Inhalation	:	Gigapack III packaging extract	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		λcl857 Sam7 control DNA	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		VCS 257 E. coli Host 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 following exposure or if feeling unwell. 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 packaging extract	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		λcl857 Sam7 control DNA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		VCS 257 E. coli Host Strain	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Gigapack III packaging extract	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.
		λcl857 Sam7 control DNA	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.
		VCS 257 E. coli Host Strain	Wash out mouth with water. Remove dentures if any. 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. 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 following exposure or if feeling unwell. 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.

SECTION 4: First aid measures

Protection of first-aiders	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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.
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4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

Eye contact	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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 λcl857 Sam7 control DNA VCS 257 E. coli Host 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 λcl857 Sam7 control DNA VCS 257 E. coli Host 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 λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
Inhalation	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
Skin contact	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
Ingestion	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 4: First aid measures

Notes to physician	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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 packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific treatment. No specific treatment. No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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 packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	None known. None known. None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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 combustion products	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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

5.3 Advice for firefighters

Special precautions for fire-fighters	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. 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. 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.
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SECTION 5: Firefighting measures

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	λcl857 Sam7 control DNA	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	VCS 257 E. coli Host Strain	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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.
	λcl857 Sam7 control DNA	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.
	VCS 257 E. coli Host 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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".
	λcl857 Sam7 control DNA	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".
	VCS 257 E. coli Host 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".

6.2 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).
λcl857 Sam7 control DNA	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).
VCS 257 E. coli Host 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).

SECTION 6: Accidental release measures

6.3 Methods and materials for containment and cleaning up

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.
	λcl857 Sam7 control DNA	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.
	VCS 257 E. coli Host Strain	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.
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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. 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.
Advice on general occupational hygiene	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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.

7.2 Conditions for safe storage, including any incompatibilities	: Gigapack III 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 unlabelled containers. Use appropriate containment to avoid environmental
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SECTION 7: Handling and storage

λcl857 Sam7 control
DNA

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.

VCS 257 E. coli Host
Strain

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations	:	Gigapack III packaging extract	Industrial applications, Professional applications.
		λcl857 Sam7 control DNA	Industrial applications, Professional applications.
		VCS 257 E. coli Host Strain	Industrial applications, Professional applications.

Industrial sector specific solutions : Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Gigapack III packaging extract Sucrose	ACGIH TLV (United States, 2/2010). TWA: 10 mg/m ³ 8 hour(s).
VCS 257 E. coli Host Strain Glycerol	ACGIH TLV (United States, 2/2010). TWA: 10 mg/m ³ 8 hour(s). Form: Inhalable fraction

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DNELs available.

Predicted effect concentrations

No PNECs available.

8.2 Exposure controls

Appropriate engineering controls : If 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.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- 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.
- 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** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Gigapack III packaging extract	Liquid.
	: λcl857 Sam7 control DNA	Liquid.
	: VCS 257 E. coli Host Strain	Liquid.
Colour	: Gigapack III packaging extract	Not available.
	: λcl857 Sam7 control DNA	Not available.
	: VCS 257 E. coli Host Strain	Not available.
Odour	: Gigapack III packaging extract	Not available.
	: λcl857 Sam7 control DNA	Not available.
	: VCS 257 E. coli Host Strain	Not available.
Odour threshold	: Gigapack III packaging extract	Not available.
	: λcl857 Sam7 control DNA	Not available.
	: VCS 257 E. coli Host Strain	Not available.
pH	: Gigapack III packaging extract	8
	: λcl857 Sam7 control DNA	7
	: VCS 257 E. coli Host Strain	7

SECTION 9: Physical and chemical properties

Melting point/freezing point	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	0°C
	VCS 257 E. coli Host Strain	Not available.
Initial boiling point and boiling range	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	100°C
	VCS 257 E. coli Host Strain	Not available.
Flash point	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Evaporation rate	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Flammability (solid, gas)	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Upper/lower flammability or explosive limits	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Vapour pressure	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Vapour density	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Relative density	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Solubility(ies)	: Gigapack III packaging extract	Easily soluble in the following materials: cold water and hot water.
	λcl857 Sam7 control DNA	Easily soluble in the following materials: cold water and hot water.
	VCS 257 E. coli Host Strain	Soluble in the following materials: cold water and hot water.

SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/water	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Auto-ignition temperature	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Decomposition temperature	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Viscosity	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
Explosive properties	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: Gigapack III packaging extract	No specific test data related to reactivity available for this product or its ingredients.
	λcl857 Sam7 control DNA	No specific test data related to reactivity available for this product or its ingredients.
	VCS 257 E. coli Host Strain	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Gigapack III packaging extract	The product is stable.
	λcl857 Sam7 control DNA	The product is stable.
	VCS 257 E. coli Host Strain	The product is stable.
10.3 Possibility of hazardous reactions	: Gigapack III packaging extract	Under normal conditions of storage and use, hazardous reactions will not occur.
	λcl857 Sam7 control DNA	Under normal conditions of storage and use, hazardous reactions will not occur.
	VCS 257 E. coli Host Strain	Under normal conditions of storage and use, hazardous reactions will not occur.

SECTION 10: Stability and reactivity

10.4 Conditions to avoid	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
10.5 Incompatible materials	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
10.6 Hazardous decomposition products	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Gigapack III packaging extract Sucrose	LD50 Oral	Rat	29700 mg/kg	-
VCS 257 E. coli Host Strain Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LC50 Inhalation Dusts and mists	Rat	>42 g/m ³	1 hours
	LD50 Oral	Rat	3000 mg/kg	-

Acute toxicity estimates

Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
VCS 257 E. coli Host Strain Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitiser

Conclusion/Summary : Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

SECTION 11: Toxicological information

Product/ingredient name	Category	Route of exposure	Target organs
Gigapack III packaging extract Sucrose	Category 2	Oral	gastrointestinal tract
VCS 257 E. coli Host Strain Glycerol	Category 2	Inhalation	kidneys

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Inhalation	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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 λcl857 Sam7 control DNA VCS 257 E. coli Host 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 λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards.
Eye contact	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host 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

Inhalation	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
Ingestion	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
Skin contact	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.

SECTION 11: Toxicological information

Eye contact	: Gigapack III packaging extract	No specific data.
	λcl857 Sam7 control DNA	No specific data.
	VCS 257 E. coli Host Strain	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.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Gigapack III packaging extract	No known significant effects or critical hazards.
	λcl857 Sam7 control DNA	No known significant effects or critical hazards.
	VCS 257 E. coli Host Strain	May cause damage to organs through prolonged or repeated exposure if inhaled.
Carcinogenicity	: Gigapack III packaging extract	No known significant effects or critical hazards.
	λcl857 Sam7 control DNA	No known significant effects or critical hazards.
	VCS 257 E. coli Host Strain	No known significant effects or critical hazards.
Mutagenicity	: Gigapack III packaging extract	No known significant effects or critical hazards.
	λcl857 Sam7 control DNA	No known significant effects or critical hazards.
	VCS 257 E. coli Host Strain	No known significant effects or critical hazards.
Teratogenicity	: Gigapack III packaging extract	No known significant effects or critical hazards.
	λcl857 Sam7 control DNA	No known significant effects or critical hazards.
	VCS 257 E. coli Host Strain	No known significant effects or critical hazards.
Developmental effects	: Gigapack III packaging extract	No known significant effects or critical hazards.
	λcl857 Sam7 control DNA	No known significant effects or critical hazards.
	VCS 257 E. coli Host Strain	No known significant effects or critical hazards.
Fertility effects	: Gigapack III packaging extract	No known significant effects or critical hazards.
	λcl857 Sam7 control DNA	No known significant effects or critical hazards.
	VCS 257 E. coli Host Strain	No known significant effects or critical hazards.

Toxicokinetics

SECTION 11: Toxicological information

Absorption	:	Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
Distribution	:	Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
Metabolism	:	Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
Elimination	:	Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
Other information	:		Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
VCS 257 E. coli Host Strain	Acute LC50 54 to 57 ml/L Fresh water	Fish - Oncorhynchus mykiss - 0.9 g	96 hours
Glycerol	Acute EC50 2430000 ug/L Fresh water	Algae - Navicula seminulum	96 hours
Sodium chloride	Acute EC50 402600 to 469200 ug/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1042 mg/L Fresh water	Crustaceans - Ceriodaphnia dubia - <24 hours	48 hours
	Acute LC50 1000000 ug/L Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic NOEC 0.314 g/L Fresh water	Daphnia - Daphnia pulex	21 days
	Chronic NOEC 100 mg/L Fresh water	Fish - Gambusia holbrooki - Adult	8 weeks

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Gigapack III packaging extract			
Sucrose	-3.7	-	low
VCS 257 E. coli Host Strain			
Glycerol	-1.76	-	low

12.4 Mobility in soil

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

Mobility : Not available.

SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment

- PBT** : Not applicable.
vPvB : Not applicable.

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. 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

ADR/RID / IMDG / IATA : Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Europe inventory : All components are listed or exempted.

Black List Chemicals : Not listed

Priority List Chemicals : Not listed

Integrated pollution prevention and control list (IPPC) - Air : Not listed

SECTION 15: Regulatory information

Integrated pollution prevention and control list (IPPC) - Water : Not listed

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
VCS 257 E. coli Host Strain STOT RE 2, H373i	Calculation method

Full text of abbreviated H statements : **Gigapack III packaging extract**
 H373o
 May cause damage to organs through prolonged or repeated exposure if swallowed.

VCS 257 E. coli Host Strain
 H319
 H373i
 Causes serious eye irritation.
 May cause damage to organs through prolonged or repeated exposure if inhaled.

Full text of classifications [CLP/GHS] : **Gigapack III packaging extract**
 STOT RE 2, H373o
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): ORAL [gastrointestinal tract] - Category 2

VCS 257 E. coli Host Strain
 Eye Irrit. 2, H319
 STOT RE 2, H373i
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [kidneys] - Category 2

Full text of abbreviated R phrases : Gigapack III packaging extract
 λcl857 Sam7 control
 DNA
 VCS 257 E. coli Host Strain
 Not applicable.
 Not applicable.
 R36- Irritating to eyes.

Full text of classifications [DSD/DPD] : Gigapack III packaging extract
 λcl857 Sam7 control
 DNA
 VCS 257 E. coli Host Strain
 Not applicable.
 Not applicable.
 Xi - Irritant

Date of issue/ Date of revision : 12/04/2012

Date of previous issue : No previous validation.

Version : 2

Notice to reader

SECTION 16: Other information

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