

# Material Safety Data Sheet



Gigapack III Gold-7 Packaging Extract, Catalog #200202

## 1. Product and company identification

<b>Product name</b>	: Gigapack III Gold-7 Packaging Extract, Catalog #200202	
<b>Material uses</b>	: 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
<b>Supplier/Manufacturer</b>	: Agilent Technologies, Inc. 1834 State Highway 71 West Cedar Creek, TX 78612 800-227-9770	
<b>Part No. (Chemical Kit)</b>	: 200202	
<b>Part No.</b>	Gigapack III packaging extract	200201-41
	λcl857 Sam7 control DNA	246203-51
	VCS 257 E. coli Host Strain	200256-51
<b>Validation date</b>	: 04/12/2012	
<b><u>In case of emergency</u></b>	: Chemtrec: 1-800-424-9300	

## 2. Hazards identification

<b>Physical state</b>	: Gigapack III packaging extract	Liquid.
	λcl857 Sam7 control DNA	Liquid.
	VCS 257 E. coli Host Strain	Liquid.
<b>Odor</b>	: Gigapack III packaging extract	Not available.
	λcl857 Sam7 control DNA	Not available.
	VCS 257 E. coli Host Strain	Not available.
<b>OSHA/HCS status</b>	: Gigapack III packaging extract	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
	λcl857 Sam7 control DNA	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
	VCS 257 E. coli Host Strain	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b><u>Emergency overview</u></b>		
<b>Signal word</b>	: Gigapack III packaging extract	No signal word.
	λcl857 Sam7 control DNA	No signal word.
	VCS 257 E. coli Host Strain	CAUTION!
<b>Hazard statements</b>	: Gigapack III packaging extract	CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
	λcl857 Sam7 control DNA	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.
	VCS 257 E. coli Host Strain	MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
<b>Precautions</b>	:	

## 2. Hazards identification

Gigapack III packaging extract	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
λcl857 Sam7 control DNA	No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.
VCS 257 E. coli Host Strain	Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

<b>Routes of entry</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
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### Potential acute health effects

<b>Inhalation</b>	: 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. Slightly irritating to the respiratory system.
<b>Ingestion</b>	: 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.
<b>Skin</b>	: 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. Slightly irritating to the skin.
<b>Eyes</b>	: 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. Moderately irritating to eyes.

### Potential chronic health effects

<b>Chronic effects</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Contains material that may cause target organ damage, based on animal data. No known significant effects or critical hazards. Contains material that may cause target organ damage, based on animal data.
<b>Carcinogenicity</b>	: 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.
<b>Mutagenicity</b>	: 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.
<b>Teratogenicity</b>	: 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.
<b>Developmental effects</b>	: 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.
<b>Fertility effects</b>	: 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.
<b>Target organs</b>	: Gigapack III packaging extract  λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Contains material which may cause damage to the following organs: gastrointestinal tract, upper respiratory tract, eye, lens or cornea, teeth. Not available. Contains material which may cause damage to the following organs: kidneys, upper respiratory tract, skin, eye, lens or cornea, stomach.

### Over-exposure signs/symptoms

## 2. Hazards identification

<b>Inhalation</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. Adverse symptoms may include the following: respiratory tract irritation coughing
<b>Ingestion</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
<b>Skin</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. Adverse symptoms may include the following: irritation redness
<b>Eyes</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. Adverse symptoms may include the following: irritation watering redness
<b>Medical conditions aggravated by over-exposure</b>	: Gigapack III packaging extract  λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product. None known. Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
<b>Gigapack III packaging extract</b> Sucrose	57-50-1	5 - 10
<b>VCS 257 E. coli Host Strain</b> Glycerol	56-81-5	10 - 30
Sodium chloride	7647-14-5	0.1 - 1

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.

## 4. First aid measures

<b>Eye contact</b>	: Gigapack III packaging extract  λcl857 Sam7 control DNA  VCS 257 E. coli Host Strain	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately. Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur. Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
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## 4. First aid measures

<b>Skin contact</b>	: Gigapack III packaging extract	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
	λcl857 Sam7 control DNA	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.
	VCS 257 E. coli Host Strain	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
<b>Inhalation</b>	: Gigapack III packaging extract	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
	λcl857 Sam7 control DNA	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.
	VCS 257 E. coli Host Strain	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
<b>Ingestion</b>	: Gigapack III packaging extract	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
	λcl857 Sam7 control DNA	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.
	VCS 257 E. coli Host Strain	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Protection of first-aiders</b>	: Gigapack III packaging extract	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.
	λcl857 Sam7 control DNA	No action shall be taken involving any personal risk or without suitable training.
	VCS 257 E. coli Host Strain	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.

## 4. First aid measures

<b>Notes to physician</b>	: Gigapack III packaging extract	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	λcl857 Sam7 control DNA	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	VCS 257 E. coli Host Strain	No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

<b>Flammability of the product</b>	: Gigapack III packaging extract	In a fire or if heated, a pressure increase will occur and the container may burst.
	λcl857 Sam7 control DNA	In a fire or if heated, a pressure increase will occur and the container may burst.
	VCS 257 E. coli Host Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Extinguishing media</b>		
<b>Suitable</b>	: Gigapack III packaging extract	Use an extinguishing agent suitable for the surrounding fire.
	λcl857 Sam7 control DNA	Use an extinguishing agent suitable for the surrounding fire.
	VCS 257 E. coli Host Strain	Use an extinguishing agent suitable for the surrounding fire.
<b>Not suitable</b>	: Gigapack III packaging extract	None known.
	λcl857 Sam7 control DNA	None known.
	VCS 257 E. coli Host Strain	None known.
<b>Special exposure hazards</b>	: Gigapack III packaging extract	No action shall be taken involving any personal risk or without suitable training.
	λcl857 Sam7 control DNA	No action shall be taken involving any personal risk or without suitable training.
	VCS 257 E. coli Host Strain	No action shall be taken involving any personal risk or without suitable training.
<b>Hazardous thermal decomposition products</b>	: Gigapack III packaging extract	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	λcl857 Sam7 control DNA	No specific data.
	VCS 257 E. coli Host Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.	

## 6. Accidental release measures

<b>Personal precautions</b>	: 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
	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

## 6. Accidental release measures

	VCS 257 E. coli Host Strain	through spilled material. Put on appropriate personal protective equipment (see Section 8).
	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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental precautions :</b>	Gigapack III 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).
	λcl857 Sam7 control DNA	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).
	VCS 257 E. coli Host 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).
<b>Methods for cleaning up :</b>	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.

## 7. Handling and storage

<b>Handling</b>	: Gigapack III packaging extract	Put on appropriate personal protective equipment (see Section 8). 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. 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.
	λcl857 Sam7 control DNA	Put on appropriate personal protective equipment



## 7. Handling and storage

VCS 257 E. coli Host Strain

(see Section 8). 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. Potentially biohazardous material. Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.

### Storage

: 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

λcl857 Sam7 control DNA

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.

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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

Ingredient	Exposure limits

## 8. Exposure controls/personal protection

<p><b>Gigapack III packaging extract</b> Sucrose</p>	<p><b>ACGIH TLV (United States, 2/2010).</b> TWA: 10 mg/m<sup>3</sup> 8 hour(s).</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p> <p><b>NIOSH REL (United States, 6/2009).</b> TWA: 5 mg/m<sup>3</sup> 10 hour(s). Form: Respirable fraction TWA: 10 mg/m<sup>3</sup> 10 hour(s). Form: Total</p> <p><b>OSHA PEL (United States, 6/2010).</b> TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p>
<p><b>VCS 257 E. coli Host Strain</b> Glycerol</p>	<p><b>ACGIH TLV (United States, 2/2010).</b> TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Inhalable fraction</p> <p><b>OSHA PEL (United States, 6/2010).</b> TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p>

- 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.
- Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor 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.
- 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.
- Personal protection**
- Respiratory** : 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.
- Hands** : 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.
- Eyes** : 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 or dusts.
- Skin** : 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.
- 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.
- Other protection** : Not available.



## 9. Physical and chemical properties

<b>Physical state</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Liquid. Liquid. Liquid.
<b>Flash point</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Auto-ignition temperature</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Flammable limits</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Color</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Odor</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>pH</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	8 7 7
<b>Boiling/condensation point</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. 100°C (212°F) Not available.
<b>Melting/freezing point</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. 0°C (32°F) Not available.
<b>Specific gravity</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Vapor pressure</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Vapor density</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Volatility</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Odor threshold</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Evaporation rate</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Viscosity</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	Not available. Not available. Not available.
<b>Solubility</b>	: Gigapack III packaging extract  λcl857 Sam7 control DNA  VCS 257 E. coli Host Strain	Easily soluble in the following materials: cold water and hot water.  Easily soluble in the following materials: cold water and hot water.  Soluble in the following materials: cold water and hot water.

## 10. Stability and reactivity

<b>Chemical stability</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	The product is stable. The product is stable. The product is stable.
<b>Conditions to avoid</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
<b>Materials to avoid</b>	: Gigapack III packaging extract λcl857 Sam7 control DNA VCS 257 E. coli Host Strain	No specific data. No specific data. No specific data.
<b>Hazardous decomposition products</b>	: 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.
<b>Possibility of hazardous reactions</b>	: Gigapack III packaging extract  λcl857 Sam7 control DNA  VCS 257 E. coli Host 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.

## 11. Toxicological information

### Acute toxicity

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

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>VCS 257 E. coli Host Strain</b> 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	-

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

### Classification

## 11. Toxicological information

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Gigapack III packaging extract Sucrose	A4	-	-	-	-	-

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

**Other adverse symptoms** : Gigapack III packaging extract Not available.  
 λcl857 Sam7 control DNA Not available.  
 VCS 257 E. coli Host Strain Not available.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic ecotoxicity

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

**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.

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

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.**

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

### Regulatory information

DOT / IMDG / IATA / : Not regulated.

## 15. Regulatory information

**HCS Classification** : Gigapack III packaging extract Target organ effects  
 λcl857 Sam7 control DNA Not regulated.  
 VCS 257 E. coli Host Strain Irritating material  
 Target organ effects

**U.S. Federal regulations** : **TSCA 8(a) IUR**: Not determined

**United States inventory (TSCA 8b)**: All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substances**: No products were found.

**SARA 302/304 emergency planning and notification**: No products were found.

**SARA 302/304/311/312 hazardous chemicals**: Sucrose; Glycerol

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**:

Sucrose: Delayed (chronic) health hazard; Glycerol: Immediate (acute) health hazard,  
 Delayed (chronic) health hazard

**Clean Water Act (CWA) 311**: Edetic acid

**Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### State regulations

**Massachusetts** : The following components are listed: SUCROSE DUST; GLYCERINE MIST

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: GLYCERIN; 1,2,3-PROPANETRIOL

**Pennsylvania** : The following components are listed: .ALPHA.-D-GLUCOPYRANOSIDE, .BETA.-D-FRUCTOFURANOSYL; 1,2,3-PROPANETRIOL

### California Prop. 65

No products were found.

## 16. Other information

**Label requirements** : Gigapack III packaging extract CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.  
 λcl857 Sam7 control DNA NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.  
 VCS 257 E. coli Host Strain MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

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

**Date of previous issue** : 04/22/2010.

**Version** : 2

## 16. Other information

Indicates information that has changed from previously issued version.

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