Conforms to US OSHA Hazard Communication 29CFR1910.1200

SAFETY DATA SHEET

Agilent Technologies

Transpack Packaging Extract, Part Number 200223

Section 1. Identification

1.1 Product identifier

Product name : Transpack Packaging Extract, Part Number 200223

Part no. (chemical kit) : 200223

Part no. :

Transpack Red Tube	200220-42
Transpack Blue Tube	200220-41
SCS-8 E. coli Strain	200288-81
Big Blue Control Genomic DNA	200220-43

Validation date : 8/31/2018

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

Material uses : Analytical reagent.

Transpack Red Tube	0.010 ml / Tube
Transpack Blue Tube	0.072 ml / Tube
SCS-8 E. coli Strain	1 ml
Big Blue Control Genomic DNA	0.02 ml

1.3 Details of the supplier of the safety data sheet

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

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

OSHA/HCS status :

Transpack Red Tube	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Transpack Blue Tube	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
SCS-8 E. coli Strain	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Big Blue Control Genomic DNA	While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture

Section 2. Hazards identification

SCS-8 E. coli Strain

H319 EYE IRRITATION - Category 2A

Ingredients of unknown toxicity :

Transpack Red Tube	Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 1 - 10%
Transpack Blue Tube	Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 1 - 10%
SCS-8 E. coli Strain	Percentage of the mixture consisting of ingredient (s) of unknown inhalation toxicity: 10 - 30%

2.2 GHS label elements

Hazard pictograms : SCS-8 E. coli Strain

Signal word :

Transpack Red Tube	No signal word.
Transpack Blue Tube	No signal word.
SCS-8 E. coli Strain	Warning
Big Blue Control Genomic DNA	No signal word.

Hazard statements :

Transpack Red Tube	No known significant effects or critical hazards.
Transpack Blue Tube	No known significant effects or critical hazards.
SCS-8 E. coli Strain	H319 - Causes serious eye irritation.
Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Precautionary statements

Prevention :

Transpack Red Tube	Not applicable.
Transpack Blue Tube	Not applicable.
SCS-8 E. coli Strain	P280 - Wear eye or face protection. P264 - Wash hands thoroughly after handling.
Big Blue Control Genomic DNA	Not applicable.

Response :

Transpack Red Tube	Not applicable.
Transpack Blue Tube	Not applicable.
SCS-8 E. coli Strain	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 attention.
Big Blue Control Genomic DNA	Not applicable.

Storage :

Transpack Red Tube	Not applicable.
Transpack Blue Tube	Not applicable.
SCS-8 E. coli Strain	Not applicable.
Big Blue Control Genomic DNA	Not applicable.

Disposal :

Transpack Red Tube	Not applicable.
Transpack Blue Tube	Not applicable.
SCS-8 E. coli Strain	Not applicable.
Big Blue Control Genomic DNA	Not applicable.

Supplemental label elements :

Transpack Red Tube	None known.
Transpack Blue Tube	None known.
SCS-8 E. coli Strain	None known.
Big Blue Control Genomic DNA	None known.

2.3 Other hazards

Hazards not otherwise classified :

Transpack Red Tube	None known.
Transpack Blue Tube	None known.
SCS-8 E. coli Strain	None known.
Big Blue Control Genomic DNA	None known.

Section 3. Composition/information on ingredients

Substance/mixture : Transpack Red Tube — Mixture
Transpack Blue Tube — Mixture
SCS-8 E. coli Strain — Mixture
Big Blue Control Genomic DNA — Mixture

Ingredient name	%	CAS number
SCS-8 E. coli Strain		
Glycerol	≥10 - ≤25	56-81-5
Sodium chloride	≤3	7647-14-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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

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

Section 4. First aid measures

4.1 Description of necessary first aid measures

Eye contact :

Transpack Red Tube: 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.

Transpack Blue Tube: 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.

SCS-8 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. Get medical attention.

Big Blue Control Genomic 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.

Inhalation :

Transpack Red Tube: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Transpack Blue Tube: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

SCS-8 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.

Big Blue Control Genomic DNA: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Section 4. First aid measures

Skin contact	:	Transpack Red Tube	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		Transpack Blue Tube	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		SCS-8 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.
		Big Blue Control Genomic DNA	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion	:	Transpack Red Tube	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.
		Transpack Blue Tube	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.
		SCS-8 E. coli 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 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.
		Big Blue Control Genomic 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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	Causes serious eye irritation.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Section 4. First aid measures

Inhalation	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.
Skin contact	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.
Ingestion	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Transpack Red Tube	No specific data.
		Transpack Blue Tube	No specific data.
		SCS-8 E. coli Strain	Adverse symptoms may include the following: pain or irritation watering redness
		Big Blue Control Genomic DNA	No specific data.
Inhalation	:	Transpack Red Tube	No specific data.
		Transpack Blue Tube	No specific data.
		SCS-8 E. coli Strain	No specific data.
		Big Blue Control Genomic DNA	No specific data.
Skin contact	:	Transpack Red Tube	No specific data.
		Transpack Blue Tube	No specific data.
		SCS-8 E. coli Strain	No specific data.
		Big Blue Control Genomic DNA	No specific data.
Ingestion	:	Transpack Red Tube	No specific data.
		Transpack Blue Tube	No specific data.
		SCS-8 E. coli Strain	No specific data.
		Big Blue Control Genomic DNA	No specific data.

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

Notes to physician	:	Transpack Red Tube	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Transpack Blue Tube	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		SCS-8 E. coli Strain	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Big Blue Control Genomic DNA	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	:	Transpack Red Tube	No specific treatment.
		Transpack Blue Tube	No specific treatment.
		SCS-8 E. coli Strain	No specific treatment.
		Big Blue Control Genomic DNA	No specific treatment.

Section 4. First aid measures

Protection of first-aiders	:	Transpack Red Tube	No action shall be taken involving any personal risk or without suitable training.
		Transpack Blue Tube	No action shall be taken involving any personal risk or without suitable training.
		SCS-8 E. coli 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.
		Big Blue Control Genomic DNA	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Transpack Red Tube	Use an extinguishing agent suitable for the surrounding fire.
		Transpack Blue Tube	Use an extinguishing agent suitable for the surrounding fire.
		SCS-8 E. coli Strain	Use an extinguishing agent suitable for the surrounding fire.
		Big Blue Control Genomic DNA	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	:	Transpack Red Tube	None known.
		Transpack Blue Tube	None known.
		SCS-8 E. coli Strain	None known.
		Big Blue Control Genomic DNA	None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	:	Transpack Red Tube	In a fire or if heated, a pressure increase will occur and the container may burst.
		Transpack Blue Tube	In a fire or if heated, a pressure increase will occur and the container may burst.
		SCS-8 E. coli Strain	In a fire or if heated, a pressure increase will occur and the container may burst.
		Big Blue Control Genomic DNA	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	:	Transpack Red Tube	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		Transpack Blue Tube	Decomposition products may include the following materials: carbon dioxide carbon monoxide
		SCS-8 E. coli Strain	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
		Big Blue Control Genomic DNA	No specific data.

5.3 Advice for firefighters

Section 5. Fire-fighting measures

Special protective actions for fire-fighters	:	Transpack Red Tube	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.
		Transpack Blue Tube	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.
		SCS-8 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.
		Big Blue Control Genomic DNA	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	:	Transpack Red Tube	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		Transpack Blue Tube	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
		SCS-8 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.
		Big Blue Control Genomic DNA	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

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	Transpack Red Tube	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.
		Transpack Blue Tube	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.
		SCS-8 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.
		Big Blue Control Genomic DNA	No action shall be taken involving any personal risk or without suitable training. Evacuate

Section 6. Accidental release measures

		surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders :	Transpack Red Tube	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".
	Transpack Blue Tube	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".
	SCS-8 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 information in "For non-emergency personnel".
	Big Blue Control Genomic DNA	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".
6.2 Environmental precautions :	Transpack Red Tube	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).
	Transpack Blue Tube	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).
	SCS-8 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).
	Big Blue Control Genomic 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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up :	Transpack Red Tube	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.
	Transpack Blue Tube	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.
	SCS-8 E. coli Strain	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble.

Section 6. Accidental release measures

		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.
	Big Blue Control Genomic 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.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures	:	Transpack Red Tube	Put on appropriate personal protective equipment (see Section 8).
		Transpack Blue Tube	Put on appropriate personal protective equipment (see Section 8).
		SCS-8 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.
		Big Blue Control Genomic DNA	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	:	Transpack Red Tube	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.
		Transpack Blue Tube	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.
		SCS-8 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.
		Big Blue Control Genomic DNA	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.

Section 7. Handling and storage

7.2 Conditions for safe storage, including any incompatibilities	:	Transpack Red Tube	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.
		Transpack Blue Tube	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.
		SCS-8 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.
		Big Blue Control Genomic 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations	:	Transpack Red Tube	Industrial applications, Professional applications.
		Transpack Blue Tube	Industrial applications, Professional applications.
		SCS-8 E. coli Strain	Industrial applications, Professional applications.
		Big Blue Control Genomic DNA	Industrial applications, Professional applications.
Industrial sector specific solutions	:	Transpack Red Tube	Not applicable.
		Transpack Blue Tube	Not applicable.
		SCS-8 E. coli Strain	Not applicable.
		Big Blue Control Genomic DNA	Not applicable.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
SCS-8 E. coli Strain Glycerol	**OSHA PEL 1989 (United States, 3/1989).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 10 mg/m³ 8 hours. Form: Total dust **OSHA PEL (United States, 6/2016).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Sodium chloride	None.

8.2 Exposure controls

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: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Transpack Red Tube	Liquid.
		Transpack Blue Tube	Liquid.
		SCS-8 E. coli Strain	Liquid.
		Big Blue Control Genomic DNA	Liquid.
Color	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Odor	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Odor threshold	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
pH	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	8
		SCS-8 E. coli Strain	7
		Big Blue Control Genomic DNA	7.5
Melting point	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	0°C (32°F)
Boiling point	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	100°C (212°F)
Flash point	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Evaporation rate	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Flammability (solid, gas)	:	Transpack Red Tube	Not applicable.
		Transpack Blue Tube	Not applicable.
		SCS-8 E. coli Strain	Not applicable.
		Big Blue Control Genomic DNA	Not applicable.
Lower and upper explosive (flammable) limits	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Vapor pressure	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Vapor density	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.

Section 9. Physical and chemical properties

Relative density	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Solubility	:	Transpack Red Tube	Easily soluble in the following materials: cold water and hot water.
		Transpack Blue Tube	Easily soluble in the following materials: cold water and hot water.
		SCS-8 E. coli Strain	Soluble in the following materials: cold water and hot water.
		Big Blue Control Genomic DNA	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Auto-ignition temperature	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Decomposition temperature	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.
Viscosity	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Not available.
		Big Blue Control Genomic DNA	Not available.

Section 10. Stability and reactivity

10.1 Reactivity	:	Transpack Red Tube	No specific test data related to reactivity available for this product or its ingredients.
		Transpack Blue Tube	No specific test data related to reactivity available for this product or its ingredients.
		SCS-8 E. coli Strain	No specific test data related to reactivity available for this product or its ingredients.
		Big Blue Control Genomic DNA	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	Transpack Red Tube	The product is stable.
		Transpack Blue Tube	The product is stable.
		SCS-8 E. coli Strain	The product is stable.
		Big Blue Control Genomic DNA	The product is stable.
10.3 Possibility of hazardous reactions	:	Transpack Red Tube	Under normal conditions of storage and use, hazardous reactions will not occur.
		Transpack Blue Tube	Under normal conditions of storage and use, hazardous reactions will not occur.
		SCS-8 E. coli Strain	Under normal conditions of storage and use, hazardous reactions will not occur.
		Big Blue Control Genomic DNA	Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

10.4 Conditions to avoid :

Transpack Red Tube	No specific data.
Transpack Blue Tube	No specific data.
SCS-8 E. coli Strain	No specific data.
Big Blue Control Genomic DNA	No specific data.

10.5 Incompatible materials :

Transpack Red Tube	May react or be incompatible with oxidizing materials.
Transpack Blue Tube	May react or be incompatible with oxidizing materials.
SCS-8 E. coli Strain	May react or be incompatible with oxidizing materials.
Big Blue Control Genomic DNA	May react or be incompatible with oxidizing materials.

10.6 Hazardous decomposition products :

Transpack Red Tube	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Transpack Blue Tube	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
SCS-8 E. coli Strain	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Big Blue Control Genomic DNA	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
SCS-8 E. coli Strain				
Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
SCS-8 E. coli 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	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Section 11. Toxicological information

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	:	Transpack Red Tube	Not available.
		Transpack Blue Tube	Not available.
		SCS-8 E. coli Strain	Routes of entry anticipated: Oral, Dermal, Inhalation.
		Big Blue Control Genomic DNA	Not available.

Potential acute health effects

Eye contact	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	Causes serious eye irritation.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.
Inhalation	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.
Skin contact	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.
Ingestion	:	Transpack Red Tube	No known significant effects or critical hazards.
		Transpack Blue Tube	No known significant effects or critical hazards.
		SCS-8 E. coli Strain	No known significant effects or critical hazards.
		Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Transpack Red Tube	No specific data.
		Transpack Blue Tube	No specific data.
		SCS-8 E. coli Strain	Adverse symptoms may include the following: pain or irritation watering redness
		Big Blue Control Genomic DNA	No specific data.
Inhalation	:	Transpack Red Tube	No specific data.
		Transpack Blue Tube	No specific data.
		SCS-8 E. coli Strain	No specific data.
		Big Blue Control Genomic DNA	No specific data.
Skin contact	:	Transpack Red Tube	No specific data.
		Transpack Blue Tube	No specific data.
		SCS-8 E. coli Strain	No specific data.
		Big Blue Control Genomic DNA	No specific data.

Section 11. Toxicological information

Ingestion :

Transpack Red Tube	No specific data.
Transpack Blue Tube	No specific data.
SCS-8 E. coli Strain	No specific data.
Big Blue Control Genomic DNA	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 :

Transpack Red Tube	No known significant effects or critical hazards.
Transpack Blue Tube	No known significant effects or critical hazards.
SCS-8 E. coli Strain	No known significant effects or critical hazards.
Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Carcinogenicity :

Transpack Red Tube	No known significant effects or critical hazards.
Transpack Blue Tube	No known significant effects or critical hazards.
SCS-8 E. coli Strain	No known significant effects or critical hazards.
Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Mutagenicity :

Transpack Red Tube	No known significant effects or critical hazards.
Transpack Blue Tube	No known significant effects or critical hazards.
SCS-8 E. coli Strain	No known significant effects or critical hazards.
Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Teratogenicity :

Transpack Red Tube	No known significant effects or critical hazards.
Transpack Blue Tube	No known significant effects or critical hazards.
SCS-8 E. coli Strain	No known significant effects or critical hazards.
Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Developmental effects :

Transpack Red Tube	No known significant effects or critical hazards.
Transpack Blue Tube	No known significant effects or critical hazards.
SCS-8 E. coli Strain	No known significant effects or critical hazards.
Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Fertility effects :

Transpack Red Tube	No known significant effects or critical hazards.
Transpack Blue Tube	No known significant effects or critical hazards.
SCS-8 E. coli Strain	No known significant effects or critical hazards.
Big Blue Control Genomic DNA	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
SCS-8 E. coli Strain Oral	300000 mg/kg

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
SCS-8 E. coli Strain			
Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Sodium chloride	Acute EC50 4.74 g/L Fresh water	Algae - Chlamydomonas reinhardtii	96 hours
	Acute EC50 519.6 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 402600 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 6.87 g/L Fresh water	Aquatic plants - Lemna minor	96 hours
	Acute LC50 1000000 µg/l Fresh water	Fish - Morone saxatilis - Larvae	96 hours
	Chronic LC10 781 mg/l Fresh water	Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling)	3 weeks
	Chronic NOEC 6 g/L Fresh water	Aquatic plants - Lemna minor	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

Product/ingredient name	Test	Result	Dose	Inoculum
SCS-8 E. coli Strain				
Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
SCS-8 E. coli Strain			
Glycerol	-1.76	-	low

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

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. 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.

Section 13. Disposal considerations

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.

Section 14. Transport information

DOT / TDG / Mexico / 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 Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

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

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

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

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification :

Transpack Red Tube	Not applicable.
Transpack Blue Tube	Not applicable.
SCS-8 E. coli Strain	EYE IRRITATION - Category 2A
Big Blue Control Genomic DNA	Not applicable.

Composition/information on ingredients

Section 15. Regulatory information

Name	%	Classification
Transpack Red Tube		
Sucrose	≤10	COMBUSTIBLE DUSTS
Transpack Blue Tube		
Sucrose	≤10	COMBUSTIBLE DUSTS
SCS-8 E. coli Strain		
Glycerol	≥10 - ≤25	EYE IRRITATION - Category 2A
Sodium chloride	≤3	EYE IRRITATION - Category 2A

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

⚠ **WARNING**: This product can expose you to Tetracycline, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
SCS-8 E. coli Strain		
Tetracycline	-	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

Canada : Not determined.

China : Not determined.

Europe : All components are listed or exempted.

Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Section 15. Regulatory information

Philippines : Not determined.

Republic of Korea : Not determined.

Taiwan : All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States : All components are listed or exempted.

Viet Nam : Not determined.

Section 16. Other information

History

Date of issue : 08/31/2018

Date of previous issue : 11/25/2016

Version : 5

Procedure used to derive the classification

Classification	Justification
SCS-8 E. coli Strain EYE IRRITATION - Category 2A	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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