

# SAFETY DATA SHEET



SureSelect cDNA Module (Pre PCR), 96 Reactions, Part Number 5500-0149

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

### 1.1 Product identifier

<b>Product name</b>	: SureSelect cDNA Module (Pre PCR), 96 Reactions, Part Number 5500-0149
<b>Part no. (chemical kit)</b>	: 5500-0149
<b>Part no.</b>	: 2X Priming Buffer 5191-6842
	First Strand Master Mix 5191-6843
	Second Strand Enzyme Mix 5190-7764
	Second Strand Oligo Mix 5190-7765

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

<b>Identified uses</b>	: <input type="checkbox"/> Analytical reagent. For research use only.	
	<input checked="" type="checkbox"/> 2X Priming Buffer	1.3 ml (96 reactions)
	First Strand Master Mix	0.816 ml (96 reactions)
	Second Strand Enzyme Mix	2.8 ml (96 reactions)
	Second Strand Oligo Mix	0.6 ml (96 reactions)
<b>Uses advised against</b>	: <input checked="" type="checkbox"/> Not for use in diagnostic procedures.	

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies LDA UK Ltd.  
 5500 Lakeside Cheadle Royal Business Park,  
 Cheadle, Cheshire, SK8 3GR  
 United Kingdom  
 Tel: +44 (0) 345 712 5292  
**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

<b>Product definition</b>	: 2X Priming Buffer Mixture
	First Strand Master Mix Mixture
	Second Strand Enzyme Mix Mixture
	Second Strand Oligo Mix Mixture

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

Not classified.

<input checked="" type="checkbox"/> 2X Priming Buffer	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
First Strand Master Mix	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
Second Strand Enzyme Mix	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.
Second Strand Oligo Mix	The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

**SECTION 2: Hazards identification**

<b>Ingredients of unknown toxicity</b>	<input checked="" type="checkbox"/> Priming Buffer	Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
	First Strand Master Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%
	Second Strand Enzyme Mix	Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%
		Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%
		Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 10 - 30%

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

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

**2.2 Label elements**

<b>Signal word</b>	<input checked="" type="checkbox"/> Priming Buffer	No signal word.
	First Strand Master Mix	No signal word.
	Second Strand Enzyme Mix	No signal word.
	Second Strand Oligo Mix	No signal word.
<b>Hazard statements</b>	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
	First Strand Master Mix	No known significant effects or critical hazards.
	Second Strand Enzyme Mix	No known significant effects or critical hazards.
	Second Strand Oligo Mix	No known significant effects or critical hazards.

**Precautionary statements**

<b>Prevention</b>	<input checked="" type="checkbox"/> Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
<b>Response</b>	<input checked="" type="checkbox"/> Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
<b>Storage</b>	<input checked="" type="checkbox"/> Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
<b>Disposal</b>	<input checked="" type="checkbox"/> Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
<b>Supplemental label elements</b>	<input checked="" type="checkbox"/> Priming Buffer	Not applicable.
	First Strand Master Mix	Safety data sheet available on request.
	Second Strand Enzyme Mix	Safety data sheet available on request.
	Second Strand Oligo Mix	Not applicable.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	<input checked="" type="checkbox"/> Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.

**Special packaging requirements**

**SECTION 2: Hazards identification**

<b>Containers to be fitted with child-resistant fastenings</b>	<input checked="" type="checkbox"/> 2X Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
<b>Tactile warning of danger</b>	<input checked="" type="checkbox"/> 2X Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.

**2.3 Other hazards**

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	<input checked="" type="checkbox"/> 2X Priming Buffer	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	First Strand Master Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Second Strand Enzyme Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Second Strand Oligo Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
	Second Strand Oligo Mix	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	<input checked="" type="checkbox"/> 2X Priming Buffer	None known.
	First Strand Master Mix	None known.
	Second Strand Enzyme Mix	None known.
	Second Strand Oligo Mix	None known.
	Second Strand Oligo Mix	None known.

**SECTION 3: Composition/information on ingredients**

<b>3.1 Substances</b>	<input checked="" type="checkbox"/> 2X Priming Buffer	Mixture
	First Strand Master Mix	Mixture
	Second Strand Enzyme Mix	Mixture
	Second Strand Oligo Mix	Mixture
	Second Strand Oligo Mix	Mixture

Product/ingredient name	Identifiers	%	Classification	Type
<b>First Strand Master Mix</b> Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[1]
<b>Second Strand Enzyme Mix</b> Glycerol	UK (GB) REACH #: Annex V REACH #: Annex V EC: 200-289-5 CAS: 56-81-5	≥10 - ≤25	Not classified.	[1]
<b>See Section 16 for the full text of the H statements declared above.</b>				





There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

**Type**

<input checked="" type="checkbox"/> First Strand Master Mix	[1] Substance with a workplace exposure limit
Second Strand Enzyme Mix	[1] Substance with a workplace exposure limit

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

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

<b>Eye contact</b>	<b>:</b>  Priming Buffer	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.
	First Strand Master Mix	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.
	Second Strand Enzyme Mix	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.
	Second Strand Oligo Mix	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.
<b>Inhalation</b>	<b>:</b>  Priming Buffer	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	First Strand Master Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Second Strand Enzyme Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
	Second Strand Oligo Mix	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
<b>Skin contact</b>	<b>:</b>  Priming Buffer	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	First Strand Master Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Second Strand Enzyme Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Second Strand Oligo Mix	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	<b>:</b>  Priming Buffer	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	First Strand Master Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Second Strand Enzyme Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Second Strand Oligo Mix	Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

**SECTION 4: First aid measures**

<b>Protection of first-aiders</b>	: <input checked="" type="checkbox"/> Priming Buffer	No action shall be taken involving any personal risk or without suitable training.
	First Strand Master Mix	No action shall be taken involving any personal risk or without suitable training.
	Second Strand Enzyme Mix	No action shall be taken involving any personal risk or without suitable training.
	Second Strand Oligo Mix	No action shall be taken involving any personal risk or without suitable training.

**4.2 Most important symptoms and effects, both acute and delayed****Over-exposure signs/symptoms**

<b>Eye contact</b>	: <input checked="" type="checkbox"/> Priming Buffer	No specific data.
	First Strand Master Mix	No specific data.
	Second Strand Enzyme Mix	No specific data.
	Second Strand Oligo Mix	No specific data.
<b>Inhalation</b>	: <input checked="" type="checkbox"/> Priming Buffer	No specific data.
	First Strand Master Mix	No specific data.
	Second Strand Enzyme Mix	No specific data.
	Second Strand Oligo Mix	No specific data.
<b>Skin contact</b>	: <input checked="" type="checkbox"/> Priming Buffer	No specific data.
	First Strand Master Mix	No specific data.
	Second Strand Enzyme Mix	No specific data.
	Second Strand Oligo Mix	No specific data.
<b>Ingestion</b>	: <input checked="" type="checkbox"/> Priming Buffer	No specific data.
	First Strand Master Mix	No specific data.
	Second Strand Enzyme Mix	No specific data.
	Second Strand Oligo Mix	No specific data.



**4.3 Indication of any immediate medical attention and special treatment needed**

<b>Notes to physician</b>	: <input checked="" type="checkbox"/> Priming Buffer	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	First Strand Master Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Second Strand Enzyme Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Second Strand Oligo Mix	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: <input checked="" type="checkbox"/> Priming Buffer	No specific treatment.
	First Strand Master Mix	No specific treatment.
	Second Strand Enzyme Mix	No specific treatment.
	Second Strand Oligo Mix	No specific treatment.



**SECTION 5: Firefighting measures****5.1 Extinguishing media**

<b>Suitable extinguishing media</b>	: <input checked="" type="checkbox"/> Priming Buffer	Use an extinguishing agent suitable for the surrounding fire.
	First Strand Master Mix	Use an extinguishing agent suitable for the surrounding fire.
	Second Strand Enzyme Mix	Use an extinguishing agent suitable for the surrounding fire.
	Second Strand Oligo Mix	Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: <input checked="" type="checkbox"/> Priming Buffer	None known.
	First Strand Master Mix	None known.
	Second Strand Enzyme Mix	None known.
	Second Strand Oligo Mix	None known.

**SECTION 5: Firefighting measures****5.2 Special hazards arising from the substance or mixture**

<b>Hazards from the substance or mixture</b>	:  Priming Buffer	In a fire or if heated, a pressure increase will occur and the container may burst.
	First Strand Master Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Second Strand Enzyme Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
	Second Strand Oligo Mix	In a fire or if heated, a pressure increase will occur and the container may burst.
<b>Hazardous combustion products</b>	:  Priming Buffer	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds metal oxide/oxides
	First Strand Master Mix	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Second Strand Enzyme Mix	Decomposition products may include the following materials:  carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
	Second Strand Oligo Mix	No specific data.

**5.3 Advice for firefighters**

<b>Special protective actions for fire-fighters</b>	:  Priming Buffer	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.
	First Strand Master Mix	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.
	Second Strand Enzyme Mix	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.
	Second Strand Oligo Mix	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.
<b>Special protective equipment for fire-fighters</b>	:  Priming Buffer	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	First Strand Master Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Second Strand Enzyme Mix	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Second Strand Oligo Mix	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**

## SECTION 6: Accidental release measures

### For non-emergency personnel

: 2X Priming Buffer	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.
First Strand Master Mix	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.
Second Strand Enzyme Mix	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.
Second Strand Oligo Mix	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.

### For emergency responders

: 2X Priming Buffer	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".
First Strand Master Mix	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".
Second Strand Enzyme Mix	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".
Second Strand Oligo Mix	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

: 2X Priming Buffer	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).
First Strand Master Mix	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).
Second Strand Enzyme Mix	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).
Second Strand Oligo Mix	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).

### 6.3 Methods and material for containment and cleaning up

#### Methods for cleaning up

: 2X Priming Buffer	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.
First Strand Master Mix	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively,

## SECTION 6: Accidental release measures

Second Strand Enzyme Mix

Second Strand Oligo Mix

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.

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.

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.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

#### Protective measures

: 2X Priming Buffer

Put on appropriate personal protective equipment (see Section 8).

First Strand Master Mix

Put on appropriate personal protective equipment (see Section 8).

Second Strand Enzyme Mix

Put on appropriate personal protective equipment (see Section 8).

Second Strand Oligo Mix

Put on appropriate personal protective equipment (see Section 8).

#### Advice on general occupational hygiene

: 2X Priming Buffer

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.

First Strand Master Mix

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.

Second Strand Enzyme Mix

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.

Second Strand Oligo Mix

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

#### Storage

: 2X Priming Buffer

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

**SECTION 7: Handling and storage****First Strand Master Mix**

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

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. See Section 10 for incompatible materials before handling or use.

**Second Strand Enzyme Mix**

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. See Section 10 for incompatible materials before handling or use.

**Second Strand Oligo Mix**

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. See Section 10 for incompatible materials before handling or use.


**7.3 Specific end use(s)****Recommendations**

: 2X Priming Buffer	Industrial applications, Professional applications.
: First Strand Master Mix	Industrial applications, Professional applications.
: Second Strand Enzyme Mix	Industrial applications, Professional applications.
: Second Strand Oligo Mix	Industrial applications, Professional applications.

**Industrial sector specific solutions**

: 2X Priming Buffer	Not available.
: First Strand Master Mix	Not available.
: Second Strand Enzyme Mix	Not available.
: Second Strand Oligo Mix	Not available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limits**

Product/ingredient name	Exposure limit values
 <b>First Strand Master Mix</b> Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist
<b>Second Strand Enzyme Mix</b> Glycerol	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Mist

**Biological exposure indices**

**SECTION 8: Exposure controls/personal protection**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
<b>First Strand Master Mix</b> Glycerol	DNEL	Long term Inhalation	33 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	56 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	229 mg/kg bw/day	General population	Systemic
<b>Second Strand Enzyme Mix</b> Glycerol	DNEL	Long term Inhalation	33 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	56 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	229 mg/kg bw/day	General population	Systemic

**PNECs**

No PNECs available

**8.2 Exposure controls**

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

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

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

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

**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

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

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	2X Priming Buffer	Liquid.
	First Strand Master Mix	Liquid.
	Second Strand Enzyme Mix	Liquid.
	Second Strand Oligo Mix	Liquid.
<b>Colour</b>	2X Priming Buffer	Not available.
	First Strand Master Mix	Not available.
	Second Strand Enzyme Mix	Not available.
	Second Strand Oligo Mix	Not available.
<b>Odour</b>	2X Priming Buffer	Not available.
	First Strand Master Mix	Not available.
	Second Strand Enzyme Mix	Not available.
	Second Strand Oligo Mix	Not available.
<b>Odour threshold</b>	2X Priming Buffer	Not available.
	First Strand Master Mix	Not available.
	Second Strand Enzyme Mix	Not available.
	Second Strand Oligo Mix	Not available.
<b>Melting point/freezing point</b>	2X Priming Buffer	0°C
	First Strand Master Mix	Not available.
	Second Strand Enzyme Mix	Not available.
	Second Strand Oligo Mix	Not available.
<b>Initial boiling point and boiling range</b>	2X Priming Buffer	100°C
	First Strand Master Mix	Not available.
	Second Strand Enzyme Mix	Not available.
	Second Strand Oligo Mix	Not available.
<b>Flammability</b>	2X Priming Buffer	Not applicable.
	First Strand Master Mix	Not applicable.
	Second Strand Enzyme Mix	Not applicable.
	Second Strand Oligo Mix	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	2X Priming Buffer	Not available.
	First Strand Master Mix	Not available.
	Second Strand Enzyme Mix	Not available.
	Second Strand Oligo Mix	Not available.

<b>Flash point</b>		<b>Closed cup</b>		<b>Open cup</b>	
		<b>°C</b>	<b>Method</b>	<b>°C</b>	<b>Method</b>
	<b>Ingredient name</b>				
	<b>First Strand Master Mix</b>				
	Glycerol	-	-	177	-
	<b>Second Strand Enzyme Mix</b>				
	Glycerol	-	-	177	-

**Auto-ignition temperature** :

**SECTION 9: Physical and chemical properties**

		<b>Ingredient name</b>	<b>°C</b>	<b>Method</b>				
		<b>First Strand Master Mix</b>						
		Glycerol	370	-				
		<b>Second Strand Enzyme Mix</b>						
		Glycerol	370	-				
<b>Decomposition temperature</b>	:	2X Priming Buffer	Not available.					
		First Strand Master Mix	Not available.					
		Second Strand Enzyme Mix	Not available.					
		Second Strand Oligo Mix	Not available.					
<b>pH</b>	:	2X Priming Buffer	8.3					
		First Strand Master Mix	8.3					
		Second Strand Enzyme Mix	8.3					
		Second Strand Oligo Mix	7.5					
<b>Viscosity</b>	:	2X Priming Buffer	Not available.					
		First Strand Master Mix	Not available.					
		Second Strand Enzyme Mix	Not available.					
		Second Strand Oligo Mix	Not available.					
<b>Solubility(ies)</b>	:	<b>Media</b>	<b>Result</b>					
		<b>2X Priming Buffer</b>						
		water	Soluble					
		<b>First Strand Master Mix</b>						
		water	Soluble					
		<b>Second Strand Enzyme Mix</b>						
		water	Soluble					
		<b>Second Strand Oligo Mix</b>						
		water	Soluble					
<b>Partition coefficient: n-octanol/water</b>	:	2X Priming Buffer	Not applicable.					
		First Strand Master Mix	Not applicable.					
		Second Strand Enzyme Mix	Not applicable.					
		Second Strand Oligo Mix	Not applicable.					
<b>Vapour pressure</b>	:	<b>Ingredient name</b>	<b>Vapour Pressure at 20°C</b>		<b>Vapour pressure at 50°C</b>			
			<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>	<b>mm Hg</b>	<b>kPa</b>	<b>Method</b>
		<b>2X Priming Buffer</b>						
		water	17.5	2.3	-	92.258	12.3	-
		2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	0	0	-	0.000007501	0.000001	-
		<b>First Strand Master Mix</b>						
		water	17.5	2.3	-	92.258	12.3	-
		Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
		<b>Second Strand</b>						

**SECTION 9: Physical and chemical properties**

	<b>Enzyme Mix</b>						
	water	17.5	2.3	-	92.258	12.3	-
	Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
	<b>Second Strand Oligo Mix</b>						
	water	17.5	2.3	-	92.258	12.3	-

**Evaporation rate** : 2X Priming Buffer Not available.  
 First Strand Master Mix Not available.  
 Second Strand Enzyme Mix Not available.

**Relative density** : 2X Priming Buffer Not available.  
 First Strand Master Mix Not available.  
 Second Strand Enzyme Mix Not available.  
 Second Strand Oligo Mix Not available.

**Vapour density** : 2X Priming Buffer Not available.  
 First Strand Master Mix Not available.  
 Second Strand Enzyme Mix Not available.  
 Second Strand Oligo Mix Not available.

**Explosive properties** : 2X Priming Buffer Not available.  
 First Strand Master Mix Not available.  
 Second Strand Enzyme Mix Not available.  
 Second Strand Oligo Mix Not available.

**Oxidising properties** : 2X Priming Buffer Not available.  
 First Strand Master Mix Not available.  
 Second Strand Enzyme Mix Not available.  
 Second Strand Oligo Mix Not available.

**Particle characteristics**

**Median particle size** : 2X Priming Buffer Not applicable.  
 First Strand Master Mix Not applicable.  
 Second Strand Enzyme Mix Not applicable.  
 Second Strand Oligo Mix Not applicable.



**9.2 Other information**

No additional information.


**SECTION 10: Stability and reactivity**

**10.1 Reactivity** : 2X Priming Buffer No specific test data related to reactivity available for this product or its ingredients.  
 First Strand Master Mix No specific test data related to reactivity available for this product or its ingredients.  
 Second Strand Enzyme Mix No specific test data related to reactivity available for this product or its ingredients.  
 Second Strand Oligo Mix No specific test data related to reactivity available for this product or its ingredients.


**SECTION 10: Stability and reactivity**

<b>10.2 Chemical stability</b>	 Priming Buffer	The product is stable.
	First Strand Master Mix	The product is stable.
	Second Strand Enzyme Mix	The product is stable.
	Second Strand Oligo Mix	The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	 Priming Buffer	Under normal conditions of storage and use, hazardous reactions will not occur.
	First Strand Master Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	Second Strand Enzyme Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
	Second Strand Oligo Mix	Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	 Priming Buffer	No specific data.
	First Strand Master Mix	No specific data.
	Second Strand Enzyme Mix	No specific data.
	Second Strand Oligo Mix	No specific data.
<b>10.5 Incompatible materials</b>	 Priming Buffer	May react or be incompatible with oxidising materials.
	First Strand Master Mix	May react or be incompatible with oxidising materials.
	Second Strand Enzyme Mix	May react or be incompatible with oxidising materials.
	Second Strand Oligo Mix	May react or be incompatible with oxidising materials.
<b>10.6 Hazardous decomposition products</b>	 Priming Buffer	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	First Strand Master Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Second Strand Enzyme Mix	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	Second Strand Oligo Mix	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
 First Strand Master Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-
Second Strand Enzyme Mix Glycerol	LD50 Oral	Rat	12600 mg/kg	-

**Acute toxicity estimates**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
 First Strand Master Mix Glycerol	12600	N/A	N/A	N/A	N/A
Second Strand Enzyme Mix Glycerol	12600	N/A	N/A	N/A	N/A

**Irritation/Corrosion**

**SECTION 11: Toxicological information**

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>First Strand Master Mix</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
<b>Second Strand Enzyme Mix</b> Glycerol	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

**Conclusion/Summary** : Not available.**Sensitiser****Conclusion/Summary** : Not available.**Mutagenicity****Conclusion/Summary** : Not available.**Carcinogenicity****Conclusion/Summary** : Not available.**Reproductive toxicity****Conclusion/Summary** : Not available.**Teratogenicity****Conclusion/Summary** : Not available.**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Information on likely routes of exposure**

<input checked="" type="checkbox"/> Priming Buffer	Not available.
First Strand Master Mix	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Second Strand Enzyme Mix	Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Second Strand Oligo Mix	Not available.

**Potential acute health effects**

<b>Inhalation</b>	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
	First Strand Master Mix	No known significant effects or critical hazards.
	Second Strand Enzyme Mix	No known significant effects or critical hazards.
	Second Strand Oligo Mix	No known significant effects or critical hazards.
<b>Ingestion</b>	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
	First Strand Master Mix	No known significant effects or critical hazards.
	Second Strand Enzyme Mix	No known significant effects or critical hazards.
	Second Strand Oligo Mix	No known significant effects or critical hazards.
<b>Skin contact</b>	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
	First Strand Master Mix	No known significant effects or critical hazards.
	Second Strand Enzyme Mix	No known significant effects or critical hazards.
	Second Strand Oligo Mix	No known significant effects or critical hazards.
<b>Eye contact</b>	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
	First Strand Master Mix	No known significant effects or critical hazards.
	Second Strand Enzyme Mix	No known significant effects or critical hazards.
	Second Strand Oligo Mix	No known significant effects or critical hazards.

**SECTION 11: Toxicological information**Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No specific data.
		First Strand Master Mix	No specific data.
		Second Strand Enzyme Mix	No specific data.
		Second Strand Oligo Mix	No specific data.
<b>Ingestion</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No specific data.
		First Strand Master Mix	No specific data.
		Second Strand Enzyme Mix	No specific data.
		Second Strand Oligo Mix	No specific data.
<b>Skin contact</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No specific data.
		First Strand Master Mix	No specific data.
		Second Strand Enzyme Mix	No specific data.
		Second Strand Oligo Mix	No specific data.
<b>Eye contact</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No specific data.
		First Strand Master Mix	No specific data.
		Second Strand Enzyme Mix	No specific data.
		Second Strand Oligo Mix	No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposureShort 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


**Conclusion/Summary** : Not available.

<b>General</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
		First Strand Master Mix	No known significant effects or critical hazards.
		Second Strand Enzyme Mix	No known significant effects or critical hazards.
		Second Strand Oligo Mix	No known significant effects or critical hazards.
<b>Carcinogenicity</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
		First Strand Master Mix	No known significant effects or critical hazards.
		Second Strand Enzyme Mix	No known significant effects or critical hazards.
		Second Strand Oligo Mix	No known significant effects or critical hazards.
<b>Mutagenicity</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
		First Strand Master Mix	No known significant effects or critical hazards.
		Second Strand Enzyme Mix	No known significant effects or critical hazards.
		Second Strand Oligo Mix	No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	:	<input checked="" type="checkbox"/> Priming Buffer	No known significant effects or critical hazards.
		First Strand Master Mix	No known significant effects or critical hazards.
		Second Strand Enzyme Mix	No known significant effects or critical hazards.
		Second Strand Oligo Mix	No known significant effects or critical hazards.


**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
 <b>First Strand Master Mix</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours
<b>Second Strand Enzyme Mix</b> Glycerol	Acute LC50 54000 mg/l Fresh water	Fish - Trout - <i>Oncorhynchus mykiss</i>	96 hours

**Conclusion/Summary** : Not available.**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
 <b>First Strand Master Mix</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-
<b>Second Strand Enzyme Mix</b> Glycerol	301D Ready Biodegradability - Closed Bottle Test	93 % - 30 days	-	-

**Conclusion/Summary** : Not available.**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
 <b>First Strand Master Mix</b> Glycerol	-1.76	-	Low
<b>Second Strand Enzyme Mix</b> Glycerol	-1.76	-	Low

**12.4 Mobility in soil****Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**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. 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.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**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. 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**

	<b>ADR/RID</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.

**Additional information**

**14.6 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.

**14.7 Transport in bulk according to IMO instruments** : Not available.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**UK (GB)/REACH****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Ozone depleting substances**

## SECTION 15: Regulatory information

Not listed.

### Prior Informed Consent (PIC)

Not listed.

### Persistent Organic Pollutants

Not listed.

### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

<b>Label</b>	:	<input checked="" type="checkbox"/> Priming Buffer	Not applicable.
		First Strand Master Mix	Not applicable.
		Second Strand Enzyme Mix	Not applicable.
		Second Strand Oligo Mix	Not applicable.

### Seveso Directive

☒ This product is not controlled under the Seveso Directive.

### EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

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

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.


#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**United States** : Not determined.

## 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]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- N/A = Not available
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration

SECTION 16: Other information

RRN = REACH Registration Number  
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Not classified.	

Full text of abbreviated H statements

Not applicable.

Full text of classifications

Not applicable.

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