

# SAFETY DATA SHEET



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

## Section 1. Identification

<b>Product identifier</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

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

<b>Identified uses</b>	: <input checked="" 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.
<b>Supplier/Manufacturer</b>	: Agilent Technologies Australia Pty Ltd 679 Springvale Road Mulgrave Victoria 3170, Australia 1800 802 402

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(61)-290372994

## Section 2. Hazard(s) identification

### Classification of the substance or mixture

**First Strand Master Mix**  
H320 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

**Second Strand Enzyme Mix**  
H320 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B

### GHS label elements

<b>Signal word</b>	: <input checked="" type="checkbox"/> 2X Priming Buffer No signal word.
	First Strand Master Mix WARNING
	Second Strand Enzyme Mix WARNING
	Second Strand Oligo Mix No signal word.
<b>Hazard statements</b>	: <input checked="" type="checkbox"/> 2X Priming Buffer No known significant effects or critical hazards.
	First Strand Master Mix H320 - Causes eye irritation.
	Second Strand Enzyme Mix H320 - Causes eye irritation.
	Second Strand Oligo Mix No known significant effects or critical hazards.
<b>Precautionary statements</b>	
<b>Prevention</b>	: 2X Priming Buffer Not applicable.
	First Strand Master Mix Not applicable.
	Second Strand Enzyme Mix Not applicable.
	Second Strand Oligo Mix Not applicable.

## Section 2. Hazard(s) identification

<b>Response</b>	<b>:</b>	2X Priming Buffer	Not applicable.
		First Strand Master Mix	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
		Second Strand Enzyme Mix	P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
<b>Storage</b>		Second Strand Oligo Mix	Not applicable.
	<b>:</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>Disposal</b>	<b>:</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>Supplemental label elements</b>			
<b>Additional warning phrases</b>	<b>:</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>Other hazards which do not result in classification</b>	<b>:</b>	2X Priming Buffer	None known.
		First Strand Master Mix	None known.
		Second Strand Enzyme Mix	None known.
		Second Strand Oligo Mix	None known.

## Section 3. Composition and ingredient information

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

### CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
First Strand Master Mix		
	Glycerol	≥10 - ≤30 56-81-5
Second Strand Enzyme Mix		
	Glycerol	≥10 - ≤30 56-81-5

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

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

## Section 4. First aid measures

### Description of necessary first aid measures

#### Eye contact

:  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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.

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.

#### Inhalation

:  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. 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.

Second Strand Enzyme Mix

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.

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.

#### Skin contact

:  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. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Second Strand Enzyme Mix

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.

Second Strand Oligo Mix

Flush contaminated skin with plenty of water.

## Section 4. First aid measures

### Ingestion

: 2X Priming Buffer

Remove contaminated clothing and shoes. 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. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention 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.

Second Strand Enzyme Mix

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention 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.

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.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

#### Eye contact

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

No known significant effects or critical hazards.  
Causes eye irritation.  
Causes eye irritation.  
No known significant effects or critical hazards.

#### Inhalation

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

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

#### Skin contact

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

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

#### Ingestion

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

No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.  
No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

## Section 4. First aid measures

<b>Eye contact</b>	: 2X Priming Buffer	No specific data.
	First Strand Master Mix	Adverse symptoms may include the following: irritation watering redness
	Second Strand Enzyme Mix	Adverse symptoms may include the following: irritation watering redness
	Second Strand Oligo Mix	No specific data.
<b>Inhalation</b>	: 2X 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>	: 2X 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>	: 2X 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.

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

<b>Notes to physician</b>	: 2X 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>	: 2X 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.
<b>Protection of first-aiders</b>	: 2X 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
	Second Strand Enzyme Mix	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.
	Second Strand Oligo Mix	No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

: 2X 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.

#### Unsuitable extinguishing media

: 2X Priming Buffer	None known.
First Strand Master Mix	None known.
Second Strand Enzyme Mix	None known.
Second Strand Oligo Mix	None known.

#### Specific hazards arising from the chemical

: 2X 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.

#### Hazardous thermal decomposition products

: 2X 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.

#### Special protective actions for fire-fighters

: 2X 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.



## Section 5. Firefighting measures

<b>Special protective equipment for fire-fighters</b>	: 2X 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

### Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.
<b>For emergency responders</b>	: 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

## Section 6. Accidental release measures

information in "For non-emergency personnel".

**Environmental precautions** : 2X Priming Buffer

First Strand Master Mix

Second Strand Enzyme Mix

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).

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### Methods and material for containment and cleaning up

**Methods for cleaning up** : 2X Priming Buffer

First Strand Master Mix

Second Strand Enzyme Mix

Second Strand Oligo Mix

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.

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## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : 2X Priming Buffer

First Strand Master Mix

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

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.



## Section 7. Handling and storage

<b>Advice on general occupational hygiene</b>	Second Strand Enzyme Mix	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour 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.
	Second Strand Oligo Mix	Put on appropriate personal protective equipment (see Section 8).
	: 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.
<b>Conditions for safe storage, including any incompatibilities</b>	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.
	: 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 appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	First Strand Master 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 Enzyme Mix	Store in accordance with local regulations. Store in original container protected from direct sunlight in a

## Section 7. Handling and storage

### Second Strand Oligo Mix

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. 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.

## Section 8. Exposure controls and personal protection

### [Control parameters](#)

### [Occupational exposure limits](#)

Ingredient name	Exposure limits
<b>First Strand Master Mix</b> Glycerol	<b>Safe Work Australia (Australia, 10/2022).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
<b>Second Strand Enzyme Mix</b> Glycerol	<b>Safe Work Australia (Australia, 10/2022).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.

### [Biological exposure indices](#)

No exposure indices known.

### [Appropriate engineering controls](#)

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

### [Environmental exposure controls](#)

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### [Individual protection measures](#)

#### [Hygiene measures](#)

: 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](#)

## Section 8. Exposure controls and personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.


## Section 9. Physical and chemical properties and safety characteristics

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

### Appearance

- Physical state** : 2X Priming Buffer Liquid.  
First Strand Master Mix Liquid.  
Second Strand Enzyme Mix Liquid.  
Second Strand Oligo Mix Liquid.
- Colour** : 2X Priming Buffer Not available.  
First Strand Master Mix Not available.  
Second Strand Enzyme Mix Not available.  
Second Strand Oligo Mix Not available.
- Odour** : 2X Priming Buffer Not available.  
First Strand Master Mix Not available.  
Second Strand Enzyme Mix Not available.  
Second Strand Oligo Mix Not available.
- Odour threshold** : 2X Priming Buffer Not available.  
First Strand Master Mix Not available.  
Second Strand Enzyme Mix Not available.  
Second Strand Oligo Mix Not available.
- pH** : 2X Priming Buffer 8.3  
First Strand Master Mix 8.3  
Second Strand Enzyme Mix 8.3  
Second Strand Oligo Mix 7.5
- Melting point/freezing point** : 2X Priming Buffer 0°C (32°F)  
First Strand Master Mix Not available.  
Second Strand Enzyme Mix Not available.  
Second Strand Oligo Mix Not available.
- Boiling point, initial boiling point, and boiling range** : 2X Priming Buffer 100°C (212°F)  
First Strand Master Mix Not available.  
Second Strand Enzyme Mix Not available.  
Second Strand Oligo Mix Not available.

### Flash point

Ingredient name	Closed cup			Open cup		
	°C	°F	Method	°C	°F	Method
 <b>First Strand Master Mix</b>						
Glycerol	-	-	-	177	350.6	-
<b>Second Strand Enzyme Mix</b>						

## Section 9. Physical and chemical properties and safety characteristics

		Glycerol	-	-	-	177	350.6	-
Evaporation rate	:	2X Priming Buffer	Not available.					
		First Strand Master Mix	Not available.					
		Second Strand Enzyme Mix	Not available.					
		Second Strand Oligo Mix	Not available.					
Flammability	:	2X Priming Buffer	Not applicable.					
		First Strand Master Mix	Not applicable.					
		Second Strand Enzyme Mix	Not applicable.					
		Second Strand Oligo Mix	Not applicable.					
Lower and upper explosion limit/flammability limit	:	2X Priming Buffer	Not available.					
		First Strand Master Mix	Not available.					
		Second Strand Enzyme Mix	Not available.					
		Second Strand Oligo Mix	Not available.					
Vapour pressure	:		Vapour Pressure at 20°C			Vapour pressure at 50°C		
		Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
		2X Priming Buffer						
		water	17.5	2.3	-	92.258	12.3	-
		2-Amino-2-(hydroxymethyl) propane-1,3-diol hydrochloride	0	0	-	0.000007501	0.000001	-
		First Strand Master Mix						
		water	17.5	2.3	-	92.258	12.3	-
		Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
		Second Strand Enzyme Mix						
		water	17.5	2.3	-	92.258	12.3	-
		Glycerol	0.000075	0.00001	-	0.0025	0.00033	-
		Second Strand Oligo Mix						
		water	17.5	2.3	-	92.258	12.3	-
Relative 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.					
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.					

## Section 9. Physical and chemical properties and safety characteristics

Solubility(ies)	Media	Result		
	2X Priming Buffer	Soluble		
	water			
	First Strand Master Mix			
	water			
	Second Strand Enzyme Mix	Soluble		
	water			
	Second Strand Oligo Mix	Soluble		
	water			
Partition coefficient: n-octanol/water	2X Priming Buffer	Not applicable.		
	First Strand Master Mix	Not applicable.		
	Second Strand Enzyme Mix	Not applicable.		
	Second Strand Oligo Mix	Not applicable.		
Auto-ignition temperature	Ingredient name	°C	°F	Method
	First Strand Master Mix			
	Glycerol	370	698	-
	Second Strand Enzyme Mix			
	Glycerol	370	698	-
Decomposition temperature	2X Priming Buffer	Not available.		
	First Strand Master Mix	Not available.		
	Second Strand Enzyme Mix	Not available.		
	Second Strand Oligo Mix	Not available.		
Viscosity	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.		

## Section 10. Stability and reactivity

<b>Reactivity</b>	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.
<b>Chemical stability</b>	2X 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.

## Section 10. Stability and reactivity

<b>Possibility of hazardous reactions</b>	: 2X 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>Conditions to avoid</b>	: 2X 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>Incompatible materials</b>	: 2X 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>Hazardous decomposition products</b>	: 2X 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

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>First Strand Master Mix</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-
<b>Second Strand Enzyme Mix</b> Glycerol	LD50 Oral	Rat	12600 mg/kg	-

#### Irritation/Corrosion

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	-

#### Sensitisation



## Section 11. Toxicological information

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.

<b>Information on likely routes of exposure</b>	<b>:</b>	<input checked="" type="checkbox"/> 2X 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>Eye contact</b>	<b>:</b>	<input checked="" type="checkbox"/> 2X Priming Buffer	No known significant effects or critical hazards.
		First Strand Master Mix	Causes eye irritation.
		Second Strand Enzyme Mix	Causes eye irritation.
		Second Strand Oligo Mix	No known significant effects or critical hazards.
<b>Inhalation</b>	<b>:</b>	2X 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>	<b>:</b>	2X 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>	<b>:</b>	2X 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.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	<b>:</b>	<input checked="" type="checkbox"/> 2X Priming Buffer	No specific data.
		First Strand Master Mix	Adverse symptoms may include the following: irritation watering redness
		Second Strand Enzyme Mix	Adverse symptoms may include the following: irritation watering redness
		Second Strand Oligo Mix	No specific data.

## Section 11. Toxicological information

<b>Inhalation</b>	: 2X 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>	: 2X 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>	: 2X 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 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

<b>General</b>	: 2X 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>	: 2X 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>	: 2X 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>	: 2X 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.

### Numerical measures of toxicity

#### 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)
<b>First Strand Master Mix</b> Glycerol	12600	N/A	N/A	N/A	N/A
<b>Second Strand Enzyme Mix</b> Glycerol	12600	N/A	N/A	N/A	N/A

## Section 12. Ecological information

### Toxicity

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

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<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	-	-

### 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

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

**ADG / IMDG / IATA** : Not regulated as Dangerous Goods according to the ADG Code .

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

## Section 15. Regulatory information

### Standard for the Uniform Scheduling of Medicines and Poisons

6

### Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

### 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

**Australia** : Not determined.

**New Zealand** : Not determined.

**United States** : Not determined.

## Section 16. Any other relevant information

### History

**Date of issue/Date of revision** : 29/06/2023


**Date of previous issue** : 27/07/2020

**Version** : 2

**Key to abbreviations** : ADG = Australian Dangerous Goods  
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
 ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 N/A = Not available  
 SUSMP = Standard Uniform Schedule of Medicine and Poisons  
 UN = United Nations

## Section 16. Any other relevant information

### [Procedure used to derive the classification](#)

Classification	Justification
 <b>First Strand Master Mix</b> SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
<b>Second Strand Enzyme Mix</b> SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method

 Indicates information that has changed from previously issued version.

### [Notice to reader](#)

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