## **SAFETY DATA SHEET**



## Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - Europe

Rev A0: 13/08/2023

## SECTION 1: Identification of the Substance and Company/Undertaking

1.1 Product Identifier

Product name: egSEQ Universal Library Prep Kit

Cat. No. EG1001S Specification 16rxn

Component Cat. No. EG100105S PCR Master Mix

EG100101S End Repair & A-Tailing Buffer
EG100102S End Repair & A-Tailing Enzyme Mix

EG100103S Ligation Buffer EG100104S DNA Ligase

1.2 Relevant identified uses of the substance and uses advised against

Identified Uses: Analytical reagent

**Restricted Uses:** For research use only. Not available for diagnostic procedures.

Mixture supplied to that use in

form of:

A mixture

Product Category by type of

chemical:

Analytical reagent

1.3 Details of the supplier of the Safety data Sheet

Edinburgh Genetics Limited

Address: Pentlands Science Park,
Penicuik, United Kingdom

EH26 OPZ

Telephone Number: +44 1312616686
Email Address: <a href="mailto:info@eggenetics.com">info@eggenetics.com</a>

1.4 Emergency Telephone: +44 1312616686

## **SECTION 2: Hazards Identification**

2.1 Classification of the mixture

2.1.1	<b>Emergency Overview</b>	PCR Master Mix	
			_

End Repair & A-Tailing Buffer

End Repair & A-Tailing Enzyme Mix

Ligation Buffer

DNA Ligase

Colourless, Liquid. H316-Causes mild skin irritation.

H320-Causes eye irritation.

Classification according to 2.1.2 Regulation (EC) No 1272/2008

(including amendments):

(EC) No 1272/2008 PCR Master I

PCR Master Mix	Skin corrosion/irritation-Category 3 Serious eye damage/eye
End Repair & A-Tailing Buffer	irritation-Category 2B
End Repair & A-Tailing Enzyme Mix	tutton category 25
Ligation Buffer	
DNA Ligase	

2.1.3 GHS Category:

PCR Master Mix	H316-Causes mild skin irritation.  ——Skin corrosion/irritation-Category 3
End Repair & A-Tailing Buffer	H320-Causes eye irritation. ——Serious
End Repair & A-Tailing Enzyme Mix	eye
Ligation Buffer	damage/eye irritation-Category 2B
DNA Ligase	

2.2 Label elements:

Hazard Pictogram:

PCR Master Mix	
End Repair & A-Tailing Buffer	
End Repair & A-Tailing Enzyme Mix	No Pictogram
Ligation Buffer	7
DNA Ligase	

Signal word:	PCR Master Mix	
	End Repair & A-Tailing Buffer	7
	End Repair & A-Tailing Enzyme Mix	Warning
	Ligation Buffer	
	DNA Ligase	
Hazard statements:	PCR Master Mix	
	End Repair & A-Tailing Buffer	H316-Causes mild skin irritation
	End Repair & A-Tailing Enzyme Mix	H320-Causes eye irritation.
	Ligation Buffer	11320 causes eye iiritation.
	DNA Ligase	
Response:	PCR Master Mix	
Response.	- Cit Muster Mix	P332 + P317-If skin irritation occurs: Get
		medical help.
	End Repair & A-Tailing Buffer	P305 + P351 + P338-If in eyes:
	End Repair & A-Tailing Enzyme Mix	Immediately rinse with water for several minutes. Remove contact lenses, if
	End Repair & A-Tailing Enzyme Wix	present and easy to do. Continue
	Ligation Buffer	rinsing.
	Ligation Burier	P337 + P317-If eye irritation persists:
	DNA Ligase	Get medical help.
	DNA Ligase	
Prevention:	PCR Master Mix	
	End Repair & A-Tailing Buffer	P264-Wash hands thoroughly after
	End Repair & A-Tailing Enzyme Mix	operation
	Ligation Buffer	
	DNA Ligase	
Disposal:	PCR Master Mix	_
	End Repair & A-Tailing Buffer	_
	End Repair & A-Tailing Enzyme Mix	N/A
	Ligation Buffer	_
	DNA Ligase	
Storage:	PCR Master Mix	
		<del>-</del>
	End Repair & A-Tailing Buffer	N/A
	End Repair & A-Tailing Enzyme Mix	4
	Ligation Buffer	4
	DNA Ligase	

2.3 Other Hazards: N/A

2.4 Additional Information: N/A

## **SECTION 3: Composition / Information on Ingredients**

3.1 Substances

ng. calcino			
PCR Master Mix	Mixture		
End Repair & A-Tailing Buffer	Mixture		
End Repair & A-Tailing Enzyme Mix	Mixture		
Ligation Buffer	Mixture		
DNA Ligase	Mixture		

## 3.2 Composition

Product identifier type in accordance with Article 18(2) of Regulation (EC) No 1272/2008	Proportion	Identifiers	EC Number
PCR Master Mix			Classified 200-289-5
Glycerol	2 to 15	EC: 200-289-5 CAS: 56-81-5	Eye Irrit. 2, H319
2-Amino-2-hydroxymethyl-1,3- propanediol	1 to 5	EC: 201-064-4 CAS: 77-86-1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Ligation Buffer			
Dithiothreitol	0.01 to 0.5	EC: 248-531-9 CAS: 27565-41-9	Eye Irrit. 2, H319 Acute Tox. 4, H302 Skin Irrit. 2, H315 STOT SE 3, H335
DNA Ligase			
Glycerol	50 to 75	EC: 200-289-5 CAS: 56-81-5	Eye Irrit. 2, H319

### **SECTION 4: First-Aid Measures**

Ingestion:

Skin contact:

## **Description of First Aid Measures**

Wash mouth with water. Move exposed person to fresh air. Do not induce

vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs, keep the head down to avoid vomit entering the lungs. Get medical attention if adverse health effects persist or

are severe.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention if adverse

health effects persist or are severe. Wash clothing before reuse. Clean shoes

thoroughly before reuse.

Immediately flush eyes with plenty of water, occasionally lifting the upper and

Eye contact: lower evelids. Check for and remove any contact lenses. Continue to rinse for at

least 10 minutes. Get medical attention if irritation occurs.

Move exposed person to fresh air. Get medical attention if adverse health effects Inhalation:

persist or are severe.

None specific First Aider Protection:

#### 4.2 Most important symptoms and effects, both acute and delayed

### Potential acute health effects:

PCR Master Mix Causes mild skin irritation. Causes eye irritation. End Repair & A-Tailing Buffer Causes mild skin irritation. Causes eye irritation. End Repair & A-Tailing Enzyme N Causes mild skin irritation. Causes eye irritation. Causes mild skin irritation. Causes eye irritation. Ligation Buffer **DNA** Ligase Causes mild skin irritation. Causes eye irritation.

Over-exposure signs/symptoms:

PCR Master Mix Skin irritation and redness. Eye pain or irritation, tears and redness. End Repair & A-Tailing Buffer Skin irritation and redness. Eye pain or irritation, tears and redness. End Repair & A-Tailing Enzyme \( \) Skin irritation and redness. Eye pain or irritation, tears and redness. Skin irritation and redness. Eye pain or irritation, tears and redness. Ligation Buffer Skin irritation and redness. Eye pain or irritation, tears and redness. **DNA Ligase** 

#### 4.3 Indication of immediate medical attention and special treatment needed

### **Specific Treatments**

PCR Master Mix None Specific End Repair & A-Tailing Buffer None Specific End Repair & A-Tailing Enzyme None Specific Ligation Buffer None Specific **DNA Ligase** None Specific

Notes to Physician

Ligation Buffer

Treat symptomatically. Contact poison treatment specialist immediately if large

PCR Master Mix quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large

End Repair & A-Tailing Buffer quantities have been ingested or inhaled.

Treat symptomatically. Contact poison treatment specialist immediately if large

End Repair & A-Tailing Enzyme N quantities have been ingested or inhaled.

Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled. **DNA** Ligase

No action shall be taken involving any personal risk or without suitable training.

#### Extinguishing media (small and large fires) 5 1

Small Fire: Use an extinguishing agent suitable for the surrounding fire.

Large Fire: Use an extinguishing agent suitable for the surrounding fire.

Avoid:

5.2.1 Specific Hazards: In a fire or if heated, a pressure increase will occur and the container may burst

Protective equipment and advice 5.2.2 for fire fighters:

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. 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 measures

#### 6.1.1 For non-emergency personnel:

PCR Master Mix

No action shall be taken involving any personal risk or without suitable training. End Repair & A-Tailing Buffer Evacuate surrounding areas. Keep unnecessary and unprotected personnel from

End Repair & A-Tailing Enzyme Nentering. Do not touch or walk through spilt material. Avoid breathing vapour or

Ligation Buffer

mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**DNA Ligase** 

### For emergency responders:

PCR 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. No action shall be End Repair & A-Tailing Buffer taken involving any personal risk or without suitable training. Evacuate End Repair & A-Tailing Enzyme N surrounding areas. Keep unnecessary and unprotected personnel from entering.

Do not touch or walk through spilt material. Put on appropriate personal

Ligation Buffer protective equipment (see Section 8). **DNA** Ligase

#### 6.2 **Environmental Precautions:**

PCR Master Mix

Ligation Buffer

End Repair & A-Tailing Buffer Avoid dispersal of spilled material and runoff and contact with soil, waterways, End Repair & A-Tailing Enzyme 1 drains and sewers. Inform the relevant authorities if the product has caused

environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up:

PCR Master Mix

**DNA** Ligase

End Repair & A-Tailing Buffer

End Repair & A-Tailing Buffer

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up. Dispose of via a licensed waste disposal contractor.

Ligation Buffer

# **SECTION 7: Handling and Storage**

**DNA** Ligase

**DNA** Ligase

#### Precautions for safe handling 7 1

PCR Master Mix End Repair & A-Tailing Buffer

Ligation Buffer

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in End Repair & A-Tailing Enzyme I 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.

#### 7.2 Conditions for safe storage, including any incompatibilities:

PCR 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

End Repair & A-Tailing Buffer

incompatible materials (see Section 10) and food and drink. Keep container tightly End Repair & A-Tailing Enzyme N closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Ligation Buffer **DNA** Ligase

7.3 Specific end use(s) recommendations:

PCR Master Mix

End Repair & A-Tailing Buffer

End Repair & A-Tailing Enzyme N Industrial applications, Professional applications.

Ligation Buffer **DNA** Ligase

## **SECTION 8: Exposure Controls/Personal Protection**

## 8.1 Control Parameters

Product/ingredient name	Component in the Kit	Exposure limit values
PCR Master Mix	N/A	N/A
End Repair & A-Tailing Buffer	N/A	N/A
End Repair & A-Tailing Enzyme Mix	N/A	N/A
Ligation Buffer	N/A	N/A
DNA Ligase	N/A	N/A
DNA Ligase	N/A	N/A

### 8.2 Exposure controls

exposure controls			
Appropriate engineering controls:	If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.		
Respiratory protection:	Wear medical protective mask.		
Hand protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products.		
Eye protection:	If contact is possible, the following protection should be worn: chemical splash goggles and/or face shield.		
Skin 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. Generally, it is recommended to wear a white coat, disposable head cover and disposable shoe cover for protection.		
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.		

## **SECTION 9: Physical and Chemical Properties**

## 9.1 Information on basic physical and chemical properties

## Physical State:

PCR Master Mix Liquid
End Repair & A-Tailing Buffer Liquid
End Repair & A-Tailing Enzyme | Liquid
Ligation Buffer Liquid
DNA Ligase Liquid

### 9.2 Colour:

PCR Master Mix Coulourless
End Repair & A-Tailing Buffer Coulourless
End Repair & A-Tailing Enzyme Coulourless
Ligation Buffer Coulourless
DNA Ligase Coulourless

## 9.3 Odour:

PCR Master Mix Irritating odour
End Repair & A-Tailing Buffer Odourless
End Repair & A-Tailing Enzyme Nodourless
Ligation Buffer Odourless
DNA Ligase Odourless

## 9.4 Odour threshold:

PCR Master Mix N/A
End Repair & A-Tailing Buffer N/A
End Repair & A-Tailing Enzyme N/A
Ligation Buffer N/A
DNA Ligase N/A

## 9.5 **pi**

PCR Master Mix 7.5
End Repair & A-Tailing Buffer 7.6
End Repair & A-Tailing Enzyme NN/A
Ligation Buffer 7.5
DNA Ligase N/A

## 9.6 Melting/Freezing point:

PCR Master Mix N/A

	End Repair & A-Tailing Buffer	N/A
	End Repair & A-Tailing Enzyme N	N/A
	Ligation Buffer	N/A
	DNA Ligase	N/A
	DIVA Ligase	11/15
0.7	Initial boiling point and boiling	
9.7	range:	
	PCR Master Mix	N/A
	End Repair & A-Tailing Buffer	N/A
	End Repair & A-Tailing Enzyme N	N/A
	Ligation Buffer	N/A
	DNA Ligase	N/A
	DIVA LIGUSC	N/A
9.8	Flash point:	
	PCR Master Mix	N/A
	End Repair & A-Tailing Buffer	N/A
	End Repair & A-Tailing Enzyme N	
	Ligation Buffer	N/A
	DNA Ligase	N/A
9.9	Evaporation rate:	
	PCR Master Mix	N/A
	End Repair & A-Tailing Buffer	N/A
	End Repair & A-Tailing Enzyme N	•
	Ligation Buffer	N/A
	DNA Ligase	N/A
0.1	Flammak Warn	
9.1	Flammability:	
	PCR Master Mix	N/A
	End Repair & A-Tailing Buffer	N/A
	End Repair & A-Tailing Enzyme N	N/A
	Ligation Buffer	N/A
	DNA Ligase	N/A
	-	
	U	
9.11	Upper/lower flammability or	
9.11	explosive limits:	N/A
9.11	explosive limits: PCR Master Mix	N/A
9.11	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer	N/A
9.11	explosive limits: PCR Master Mix	N/A N/A
9.11	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer	N/A
9.11	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N	N/A N/A
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	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Buffer	N/A N/A N/A N/A N/A N/A
	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer	N/A N/A N/A N/A N/A N/A N/A
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	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour density	N/A N/A N/A N/A N/A N/A N/A N/A N/A
9.12	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour density PCR Master Mix	N/A N/A N/A N/A N/A N/A N/A N/A
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9.12 9.13	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Relative vapour density (air=1): PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N Ligation Buffer DNA Ligase  Solubility: PCR Master Mix End Repair & A-Tailing Buffer	N/A
9.12 9.13	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Relative vapour density (air=1): PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Solubility: PCR Master Mix End Repair & A-Tailing Buffer	N/A
9.12 9.13	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Relative vapour density (air=1): PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Solubility: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme M Ligation Buffer	N/A
9.12 9.13	explosive limits: PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Vapour pressure: PCR Master Mix End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer DNA Ligase  Vapour density PCR Master Mix End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Relative vapour density (air=1): PCR Master Mix End Repair & A-Tailing Buffer End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme M Ligation Buffer DNA Ligase  Solubility: PCR Master Mix End Repair & A-Tailing Buffer	N/A

Partition coefficient (noctanol/water):

N/A

PCR Master Mix

9.16

End Repair & A-Tailing Buffer	N/A
End Repair & A-Tailing Enzyme N	N/A
Ligation Buffer	N/A
DNA Ligase	N/A

#### Auto-ignition temperature: 9.17

PCR Master Mix N/A End Repair & A-Tailing Buffer N/A End Repair & A-Tailing Enzyme N/A Ligation Buffer DNA Ligase N/A

#### 9.18 Decomposition temperature:

PCR Master Mix N/A End Repair & A-Tailing Buffer N/A End Repair & A-Tailing Enzyme N/A Ligation Buffer DNA Ligase N/A

#### 9.19 Viscosity:

PCR Master Mix N/A End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N/A Ligation Buffer N/A DNA Ligase

## **SECTION 10: Stability and Reactivity**

## Reactivity:

PCR Master Mix Stable End Repair & A-Tailing Buffer Stable End Repair & A-Tailing Enzyme N Stable Ligation Buffer **DNA** Ligase Stable

#### 10.2 Chemical stability:

PCR Master Mix Stable End Repair & A-Tailing Buffer Stable End Repair & A-Tailing Enzyme N Stable Ligation Buffer Stable DNA Ligase Stable

#### Possibility of hazardous reactions: 10.3

Under normal conditions of storage and use, hazardous Ireactions will not occur. PCR Master Mix

Under normal conditions of storage and use, hazardous Ireactions will not occur.

End Repair & A-Tailing Buffer

Under normal conditions of storage and End Repair & A-Tailing Enzyme N use, hazardous Ireactions will not occur.

Under normal conditions of storage and

use, hazardous Ireactions will not occur. Ligation Buffer

Under normal conditions of storage and

use, hazardous Ireactions will not occur. DNA Ligase

#### 10.4 Conditions to Avoid:

No specific data PCR Master Mix End Repair & A-Tailing Buffer No specific data End Repair & A-Tailing Enzyme N No specific data No specific data Ligation Buffer No specific data **DNA** Ligase

#### Incompatible materials: 10.5

PCR Master Mix No specific data End Repair & A-Tailing Buffer No specific data End Repair & A-Tailing Enzyme No specific data Ligation Buffer No specific data DNA Ligase No specific data

#### Hazardous decomposition 10.6

products:

Under normal conditions of storage and

use, hazardous Idecomposition products

PCR Master Mix should not be produced.

Under normal conditions of storage and use, hazardous Idecomposition products

End Repair & A-Tailing Buffer should not be produced.

Under normal conditions of storage and

use, hazardous Idecomposition products

End Repair & A-Tailing Enzyme  $\ensuremath{\mathtt{N}}$  should not be produced.

Under normal conditions of storage and use, hazardous Idecomposition products

should not be produced.

Under normal conditions of storage and

use, hazardous Idecomposition products

DNA Ligase should not be produced.

## **SECTION 11: Toxicological Information**

### Information on toxicological effects

### Acute toxicity:

Ligation Buffer

Product/ingredient name	Result	Species	Dose	Exposure
PCR Master Mix				
Glycerol	LD50 Oral	Rat	12600 mg/kg	/
2-Amino-2-hydroxymethyl-1,3-propa nediol	LD50 Skin	Rat	>5000 mg/kg	
Ligation Buffer			333 mg/kg	
Dithiothreitol	LD50 Skin	Mouse	12600 mg/kg	/
DNA Ligase				
Glycerol	LD50 Oral	Rat	12600 mg/kg	/

#### 11.2 Irritation/Corrosion

Product/ingredient name	Result	Species	Exposure
PCR Master Mix			
Glycerol	Eyes - mild irritant	N/A	N/A
2-Amino-2-hydroxymethyl-1,3-propa nediol	Skin - mild irritant		
Ligation Buffer			
Dithiothreitol	N/A	N/A	N/A
DNA Ligase			
Glycerol	Eyes - mild irritant	Rabbit	24 h 500 mg
	Skin - Mild irritant	Rabbit	24 h 500 mg

#### 11.3 Senitiser

PCR Master Mix End Repair & A-Tailing Buffer N/A End Repair & A-Tailing Enzyme N/A Ligation Buffer DNA Ligase N/A

#### 11.4 Mutagenicity:

PCR Master Mix N/A End Repair & A-Tailing Buffer N/A End Repair & A-Tailing Enzyme NN/A Ligation Buffer N/A **DNA** Ligase N/A

#### 11.5 Carcinogenicity:

PCR Master Mix N/A End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N/A Ligation Buffer N/A DNA Ligase N/A

#### Reproductive toxicity: 11.6

PCR Master Mix N/A End Repair & A-Tailing Buffer End Repair & A-Tailing Enzyme N/A Ligation Buffer N/A DNA Ligase N/A

#### Specific target organ toxicity 11.7

(single exposure):

PCR Master Mix End Repair & A-Tailing Buffer N/A End Repair & A-Tailing Enzyme N/A Ligation Buffer N/A DNA Ligase N/A

# Specific target organ toxicity

(repeated exposure):

PCR Master Mix N/A
End Repair & A-Tailing Buffer N/A
End Repair & A-Tailing Enzyme N/A
Ligation Buffer N/A
DNA Ligase N/A

## 11.9 Aspiration hazard:

PCR Master Mix N/A
End Repair & A-Tailing Buffer N/A
End Repair & A-Tailing Enzyme N/A
Ligation Buffer N/A
DNA Ligase N/A

## **SECTION 12: Ecological Information**

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
PCR Master Mix			
Glycerol	Acute LC50 54000 mg/L Fresh water	Fish - Oncorhynchus mykiss	96h
2-Amino-2-hydroxymethyl-1,3-propa nediol	Acute EC50 >980 mg/L Fresh water	Daphnia	48h
	Acute NOEC 520 mg/L Fresh water	Daphnia	48h
Ligation Buffer			
Dithiothreitol	N/A	N/A	N/A
DNA Ligase			
Glycerol	Acute LC50 54000 mg/L Fresh water	Fish - Oncorhynchus mykiss	96h

12.2 Persistence and degradability: N/A 12.3 Bioaccumulative potential: N/A Mobility in soil: 12.4 N/A Results of PBT and vPvB N/A 12.5 assessment: 12.6 Other adverse effects: N/A

### **SECTION 13: Disposal Considerations**

### 13.1 Waste treatment 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**

14.1 Precautions for transportation:

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.

## SECTION 15: Regulatory Information

Nation	Regulation	Information
International	Chemical Weapon Convention List	
international	Schedules I, II & III Chemicals	Not listed.
International	Montreal Protocol (Annexes A, B, C, E)	Not listed.
International	Stockholm Convention on Persistent Organic	
international	Pollutants	Not listed.
International	Rotterdam Convention on Prior Inform	
international	Consent (PIC)	Not listed.
International	UNECE Aarhus Protocol on POPs and Heavy	
international	Metals	Not listed.
	Regulation (EC) No 1907/2006 of the	All components
Europe	European Parliament and of the Council	are not listed in
	(REACH)	the list.

United States	Toxic Substances Control Act (TSCA)	Not listed.
United States	TSCA Chemical Substance Inventory	All components are not listed in the list.
Japan	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All components are not listed in the list.
Turkey	Regulation on the Export and Import of Certain Hazardous Chemicals	All components are not listed in the list.
Turkey	Regulation of Registration, Evaluation, Authorization, and Restriction of Chemicals (KKDIK)	All components are not listed in the list.
China	Inventory of the Existing Chemical Substances in China (IECSC)	All components are listed or exempted.
China	Provisions on Environmental Administration of New Chemical Substances	Not listed.
China	Regulations on Safe Management of Hazardous Chemicals in China	Not listed.
China	Catalog of Hazardous Chemicals	All components are not listed in the list.
China	Catalog of Goods Prohibited from Import	All components are not listed in the list.
China	Catalog of Goods Prohibited from Export	All components are not listed in the list.
China	China Inventory of Severely Restricted Toxic Chemicals	All components are not listed in the list.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Edinburgh Genetics Limited and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. ©2023 Edinburgh Genetics Ltd. All rights reserved.