EDINBURGH

SAFETY DATA SHEET

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

Rev A3: 10/08/2023

SECTION 1: Identification of the Substance and Company/Undertaking

1.1 Product Identifier

Product name: egSEQ Enzyme DNA Library Prep Kit

 Cat. No.
 EG1101S

 Specification
 16rxn

 Component Cat. No.
 EG110101S

pmponent Cat. No. EG110101S Ada Ligase
EG110102S Ada Ligation Buffer
EG110103S Fragment & ERA Buffer

EG110104S Fragment & ERA Enzyme Mix

EG110105S PCR Master Mix

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: info@eggenetics.com

1.4 Emergency Telephone: +44 1312616686

SECTION 2: Hazards Identification

2.1 Classification of the mixture

| 211 | Emergency Overview | |
|-----|--------------------|--|

| Fragment & ERA Buffer | |
|---------------------------|--------------------------------------|
| Fragment & ERA Enzyme Mix | Colourless, Liquid. H316-Causes mild |
| Ada Ligation Buffer | skin irritation. |
| Ada Ligase | H320-Causes eye irritation. |
| PCR Master Mix | |

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

| Fragment & ERA Buffer | Category 3, Serious eye damage/eye |
|---------------------------|------------------------------------|
| Fragment & ERA Enzyme Mix | irritation-Category 2B |
| Ada Ligation Buffer | iiiitation-category 25 |
| Ada Ligase | |
| PCR Master Mix | |

Classification according to EU
2.1.3 Directive 67/548/EEC (including amendments):

| Fragment & ERA Buffer | |
|---------------------------|------|
| Fragment & ERA Enzyme Mix | None |
| Ada Ligation Buffer | |
| Ada Ligase | |
| PCR Master Mix | |

2.2 Label elements:

| Fragment & ERA Buffer | |
|-----------------------|--|
| | |

| | Fragment & ERA Enzyme Mix | None |
|---------------------------|--|--|
| | Ada Ligation Buffer | |
| | Ada Ligase | |
| | PCR Master Mix | |
| | | |
| Signal word: | Fragment & ERA Buffer | |
| | Fragment & ERA Enzyme Mix | Warning |
| | Ada Ligation Buffer | |
| | Ada Ligase | |
| | PCR Master Mix | |
| | <u> </u> | |
| Hazard statements: | Fragment & ERA Buffer | H316-Causes mild skin irritation |
| | Fragment & ERA Enzyme Mix | H320-Causes eye irritation. |
| | Ada Ligation Buffer | |
| | Ada Ligase | |
| | PCR Master Mix | |
| | | |
| Precautionary statements: | Fragment & ERA Buffer | |
| | Fragment & ERA Enzyme Mix | None |
| | Ada Ligation Buffer | |
| | Ada Ligase | |
| | PCR Master Mix | |
| | · | |
| Prevention: | Fragment & ERA Buffer | DOGA Week handa thannakha fi |
| | Fragment & ERA Enzyme Mix | P264-Wash hands thoroughly after |
| | Ada Ligation Buffer | operation operation |
| | Ada Ligase | |
| | PCR Master Mix | |
| | | |
| Disposal: | Fragment & ERA Buffer | |
| | Fragment & ERA Enzyme Mix | |
| | Ada Ligation Buffer | N/A |
| | Ada Ligase | |
| | PCR Master Mix | |
| | | |
| Storage: | Fragment & ERA Buffer | |
| | Fragment & ERA Enzyme Mix | N/A |
| | Ada Ligation Buffer | |
| | Ada Ligase | |
| | PCR Master Mix | |
| | L | ı |
| Other Hazards: | The product is a mixture containing m producing slight risk of irritation in the | ostly water with various other ingredients eir pure state |

2.3

The product is not classified as hazardous according to EC and National 2.4 Additional Information: Regulations.

SECTION 3: Composition / Information on Ingredients 3.1 Substances

| Fragment & ERA Buffer | Mixture |
|---------------------------|---------|
| Fragment & ERA Enzyme Mix | Mixture |
| Ada Ligation Buffer | Mixture |
| Ada Ligase | Mixture |
| PCR Master Mix | Mixture |

| | Identifiers | EC Number |
|-------------|----------------------------------|---|
| | | Classified 200-289-5 |
| 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 |
| | | |
| 2 to 15 | EC: 200-289-5 CAS: 56-81-5 | Eye Irrit. 2, H319 |
| | | |
| 2 to 15 | EC: 200-289-5 CAS: 56-81-5 | Eye Irrit. 2, H319 |
| 1 to 5 | EC: 201-064-4 CAS: 77-86-1 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 |
| | 0.01 to 0.5 2 to 15 | Proportion Identifiers EC: 248-531-9 CAS: 27565-41-9 2 to 15 EC: 200-289-5 CAS: 56-81-5 EC: 200-289-5 CAS: 56-81-5 EC: 201-064-4 |

SECTION 4: First-Aid Measures

4.1 Description of First Aid Measures

Ingestion:

Skin contact:

Eye contact:

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

lower eyelids. Check for and remove any contact lenses. Continue to rinse for at

least 10 minutes. Get medical attention if irritation occurs.

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

persist or are severe.

First Aider Protection: None specific

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects:

Fragment & ERA Buffer
Causes mild skin irritation. Causes eye irritation.
Fragment & ERA Enzyme Mix
Causes mild skin irritation. Causes eye irritation.
Ada Ligation Buffer
Causes mild skin irritation. Causes eye irritation.
Ada Ligase
Causes mild skin irritation. Causes eye irritation.
PCR Master Mix
Causes mild skin irritation. Causes eye irritation.

Over-exposure signs/symptoms:

Fragment & ERA Buffer Skin irritation and redness. Eye pain or irritation, tears and redness. Fragment & ERA Enzyme Mix Skin irritation and redness. Eye pain or irritation, tears and redness. Ada Ligasten Buffer Skin irritation and redness. Eye pain or irritation, tears and redness. Ada Ligase Skin irritation and redness. Eye pain or irritation, tears and redness. PCR Master Mix Skin irritation and redness. Eye pain or irritation, tears and redness.

4.3 Indication of immediate medical attention and special treatment needed

Specific Treatments

Fragment & ERA Buffer None Specific Fragment & ERA Enzyme Mix None Specific Ada Ligation Buffer None Specific Ada Ligase None Specific PCR Master Mix None Specific

Notes to Physician

Treat symptomatically. Contact poison treatment specialist immediately if large

Fragment & ERA Buffer quantities have been ingested or inhaled.

Treat symptomatically. Contact poison treatment specialist immediately if large

Fragment & ERA Enzyme Mix quantities have been ingested or inhaled.

Treat symptomatically. Contact poison treatment specialist immediately if large

Ada Ligation Buffer quantities have been ingested or inhaled.

Treat symptomatically. Contact poison treatment specialist immediately if large

Ada Ligase quantities have been ingested or inhaled.

Treat symptomatically. Contact poison treatment specialist immediately if large

PCR Master Mix quantities have been ingested or inhaled.

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

SECTION 5: Fire-Fighting Measures

Extinguishing media (small and large fires) 5 1

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

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

Avoid: None

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

> 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 Protective equipment and advice

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

for fire fighters:

5.2.2

Personal precautions, protective equipment and emergency measures 6 1

6.1.1 For non-emergency personnel:

Fragment & ERA Buffer

Fragment & ERA Enzyme Mix

Ada Ligation Buffer

Ada Ligase

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 (see Section 8).

PCR Master Mix

6.1.2 For emergency responders:

Fragment & ERA Buffer

Fragment & ERA Enzyme Mix

Ada Ligation Buffer

Ada Ligase

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 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 (see Section 8).

6.2 **Environmental Precautions:**

Fragment & ERA Buffer

Fragment & ERA Enzyme Mix

Ada Ligation Buffer Ada Ligase PCR Master Mix

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up:

Fragment & ERA Buffer

Fragment & ERA Enzyme Mix

Ada Ligation Buffer

Ada Ligase PCR Master Mix Stop leak if without risk. Move containers from spill area. Dilute with water and

mop up. Dispose of via a licensed waste disposal contractor.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Fragment & ERA Buffer Fragment & ERA Enzyme Mix

Ada Ligation Buffer Ada Ligase

PCR Master Mix

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

residue and can be hazardous. Do not reuse container.

7.2 Conditions for safe storage, including any incompatibilities:

Fragment & ERA Buffer

Fragment & ERA Enzyme Mix

Ada Ligation Buffer

Ada Ligase

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

contamination

7.3 Specific end use(s) recommendations:

Fragment & ERA Buffer Fragment & ERA Enzyme Mix

Ada Ligation Buffer

Industrial applications, Professional applications.

Ada Ligase PCR Master Mix

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

| Product/ingredient name | Component in the Kit | Exposure limit values |
|---------------------------|----------------------|-----------------------|
| Fragment & ERA Buffer | N/A | N/A |
| Fragment & ERA Enzyme Mix | N/A | N/A |
| Ada Ligation Buffer | N/A | N/A |
| Ada Ligase | N/A | N/A |
| PCR Master Mix | N/A | N/A |
| | | |

8.2 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. |
| Personal protective equipment for the body should be selected based on the performed and the risks involved and should be approved by a specialist be this product. Generally, it is recommended to wear a white coat, disposable 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. |

9.1 Information on basic physical and chemical properties

Physical State:

Fragment & ERA Buffer Liquid
Fragment & ERA Enzyme Mix Liquid
Ada Ligation Buffer Liquid
Ada Ligase Liquid
PCR Master Mix Liquid

9.2 Colour:

Fragment & ERA Buffer Coulourless
Fragment & ERA Enzyme Mix Coulourless
Ada Ligation Buffer Coulourless
Ada Ligase Coulourless
PCR Master Mix Coulourless

9.3 Odour:

Fragment & ERA Buffer Odourless
Fragment & ERA Enzyme Mix Odourless
Ada Ligation Buffer Odourless
Ada Ligase Odourless
PCR Master Mix Irritating odour

9.4 Odour threshold:

Fragment & ERA Buffer N/A
Fragment & ERA Enzyme Mix N/A
Ada Ligation Buffer N/A
Ada Ligase N/A
PCR Master Mix N/A

9.5 **pH:**

Fragment & ERA Buffer N/A
Fragment & ERA Enzyme Mix N/A
Ada Ligation Buffer N/A
Ada Ligase N/A
PCR Master Mix N/A

9.6 Melting/Freezing point:

Fragment & ERA Buffer N/A
Fragment & ERA Enzyme Mix N/A
Ada Ligation Buffer N/A
Ada Ligase N/A
PCR Master Mix N/A

9.7 Initial boiling point and boiling

range:

Fragment & ERA Buffer N/A
Fragment & ERA Enzyme Mix N/A
Ada Ligation Buffer N/A
Ada Ligase N/A
PCR Master Mix N/A

9.8 Flash point:

Fragment & ERA Buffer N/A
Fragment & ERA Enzyme Mix N/A
Ada Ligation Buffer N/A
Ada Ligase N/A
PCR Master Mix N/A

9.9 Evaporation rate:

Fragment & ERA Buffer N/A
Fragment & ERA Enzyme Mix N/A
Ada Ligation Buffer N/A
Ada Ligase N/A
PCR Master Mix N/A

9.1 Flammability:

| | Fragment & ERA Buffer | N/A |
|----------------------|--|---|
| | Fragment & ERA Enzyme Mix | N/A |
| | Ada Ligation Buffer | N/A |
| | Ada Ligase | N/A |
| | PCR Master Mix | N/A |
| 9.11 | Upper/lower flammability or | |
| 9.11 | explosive limits: | |
| | Fragment & ERA Buffer | N/A |
| | Fragment & ERA Enzyme Mix | N/A |
| | Ada Ligation Buffer Ada Ligase | N/A N/A |
| | PCR Master Mix | N/A |
| | | , |
| 9.12 | Vapour pressure: | |
| | Fragment & ERA Buffer | N/A |
| | Fragment & ERA Enzyme Mix | N/A |
| | Ada Ligaso | N/A N/A |
| | Ada Ligase PCR Master Mix | N/A |
| 9.13 | Vanour doneitu | |
| 9.13 | Vapour density Fragment & ERA Buffer | N/A |
| | Fragment & ERA Enzyme Mix | N/A |
| | Ada Ligation Buffer | N/A |
| | Ada Ligase | N/A |
| | PCR Master Mix | N/A |
| 9.14 | Relative vapour density (air=1): | |
| | Fragment & ERA Buffer | N/A |
| | Fragment & ERA Enzyme Mix | N/A |
| | Ada Ligation Buffer | N/A |
| | Ada Ligase | N/A |
| | | N/A |
| | PCR Master Mix | N/A |
| 9.15 | Solubility: | N/A |
| 9.15 | | N/A Soluble in water |
| 9.15 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix | Soluble in water |
| 9.15 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer | Soluble in water Soluble in water Soluble in water |
| 9.15 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase | Soluble in water Soluble in water Soluble in water Soluble in water |
| 9.15 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer | Soluble in water Soluble in water Soluble in water |
| 9.15 9.16 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase | Soluble in water Soluble in water Soluble in water Soluble in water |
| | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (n- | Soluble in water Soluble in water Soluble in water Soluble in water |
| | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (n- octanol/water): | Soluble in water Soluble in water Soluble in water Soluble in water Soluble in water |
| | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer | Soluble in water Soluble in water Soluble in water Soluble in water Soluble in water N/A N/A N/A |
| | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase | Soluble in water Soluble in water Soluble in water Soluble in water Soluble in water N/A N/A N/A N/A |
| | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer | Soluble in water Soluble in water Soluble in water Soluble in water Soluble in water N/A N/A N/A |
| | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: | Soluble in water Soluble in water Soluble in water Soluble in water Soluble in water N/A N/A N/A N/A N/A |
| 9.16 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer | Soluble in water N/A N/A N/A N/A N/A N/A N/A |
| 9.16 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer | Soluble in water N/A N/A N/A N/A N/A N/A N/A |
| 9.16 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer | Soluble in water N/A N/A N/A N/A N/A N/A N/A N/A N/A |
| 9.16 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer | Soluble in water N/A N/A N/A N/A N/A N/A N/A |
| 9.16 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase | Soluble in water N/A |
| 9.16 9.17 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix | Soluble in water N/A |
| 9.16 9.17 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Buffer | Soluble in water N/A |
| 9.16 9.17 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Enzyme Mix Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer | Soluble in water N/A |
| 9.16 9.17 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase | Soluble in water N/A |
| 9.16 9.17 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Enzyme Mix Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer | Soluble in water N/A |
| 9.16 9.17 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Viscosity: | Soluble in water N/A |
| 9.16 9.17 9.18 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Buffer Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Viscosity: Fragment & ERA Buffer | Soluble in water N/A |
| 9.16 9.17 9.18 | Solubility: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Partition coefficient (noctanol/water): Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Auto-ignition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligase PCR Master Mix Decomposition temperature: Fragment & ERA Buffer Fragment & ERA Enzyme Mix Ada Ligation Buffer Ada Ligase PCR Master Mix Viscosity: | Soluble in water N/A |

Ada Ligase N/A PCR Master Mix N/A

SECTION 10: Stability and Reactivity

| 10.1 | Reactivity |
|------|------------|
| | |

Fragment & ERA Buffer Stable
Fragment & ERA Enzyme Mix Stable
Ada Ligation Buffer Stable
Ada Ligase Stable
PCR Master Mix Stable

10.2 Chemical stability:

Fragment & ERA Buffer Stable
Fragment & ERA Enzyme Mix Stable
Ada Ligation Buffer Stable
Ada Ligase Stable
PCR Master Mix Stable

Possibility of hazardous

reactions:

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

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

Fragment & ERA Enzyme Mix

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

Under normal conditions of storage and

use, hazardous Ireactions will not occur.

Under normal conditions of storage and

PCR Master Mix use, hazardous Ireactions will not occur.

10.4 Conditions to Avoid:

Ada Ligase

Fragment & ERA Buffer No specific data
Fragment & ERA Enzyme Mix No specific data
Ada Ligation Buffer No specific data
Ada Ligase No specific data
PCR Master Mix No specific data

10.5 Incompatible materials:

Fragment & ERA Buffer No specific data
Fragment & ERA Enzyme Mix No specific data
Ada Ligation Buffer No specific data
Ada Ligase No specific data
PCR Master Mix No specific data

10.6 Hazardous decomposition

products:

Under normal conditions of storage and use, hazardous Idecomposition products

Fragment & ERA Buffer should not be produced.

Under normal conditions of storage and use, hazardous Idecomposition products

Fragment & ERA Enzyme Mix should not be produced.

Under normal conditions of storage and use, hazardous Idecomposition products

Ada Ligation Buffer should not be produced.

Under normal conditions of storage and use, hazardous Idecomposition products

Ada Ligase should not be produced.

Under normal conditions of storage and use, hazardous Idecomposition products

PCR Master Mix should not be produced.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity:

| Product/ingredient name | Result | Species | Dose | Exposure |
|-----------------------------------|------------|---------|-------------|----------|
| Ada Ligation Buffer | | | | |
| Dithiothreitol | LD50 Skin | Mouse | 333 mg/kg | / |
| Ada Ligase | | | | |
| Glycerol | LD50 Oral | Rat | 12600 mg/kg | / |
| PCR Master Mix | | | | |
| Glycerol | LD50 Oral | Rat | 12600 mg/kg | / |
| 2-Amino-2-hydroxymethyl-1,3-propa | LD50 Skin | | | |
| nediol | LD30 3Kill | Rat | >5000 mg/kg | / |

11.2 Irritation/Corrosion

| Product/ingredient name | Result | Species | Exposure |
|---|--------------------------|---------|-------------|
| Ada Ligation Buffer | | | |
| Dithiothreitol | N/A | N/A | N/A |
| Ada Ligase | | | |
| Glycerol | Eyes - mild irritant | Rabbit | 24 h 500 mg |
| | Skin - mild irritant | Rabbit | 24 h 500 mg |
| PCR Master Mix | | | |
| Glycerol | Eyes - mild irritant | Rabbit | 24 h 500 mg |
| | Skin - mild irritant | Rabbit | 24 h 500 mg |
| 2-Amino-2-hydroxymethyl-1,3-propa nediol | Skin - moderate irritant | Rabbit | 0.25 |
| | Skin - severe irritant | Rabbit | 500 mg |

Senitiser 11.3

Fragment & ERA Buffer N/A Fragment & ERA Enzyme Mix N/A Ada Ligation Buffer N/A Ada Ligase N/A PCR Master Mix N/A

11.4 Mutagenicity:

Fragment & ERA Buffer N/A Fragment & ERA Enzyme Mix N/A Ada Ligation Buffer N/A Ada Ligase N/A PCR Master Mix N/A

11.5 Carcinogenicity:

Fragment & ERA Buffer N/A Fragment & ERA Enzyme Mix N/A Ada Ligation Buffer N/A Ada Ligase N/A PCR Master Mix N/A

11.6 Reproductive toxicity:

Fragment & ERA Buffer N/A Fragment & ERA Enzyme Mix N/A Ada Ligation Buffer N/A Ada Ligase N/A PCR Master Mix N/A

Specific target organ toxicity 11.7

(single exposure):

Fragment & ERA Buffer N/A Fragment & ERA Enzyme Mix N/A Ada Ligation Buffer N/A Ada Ligase N/A PCR Master Mix N/A

Specific target organ toxicity 11.8

(repeated exposure):

Fragment & ERA Buffer N/A Fragment & ERA Enzyme Mix N/A Ada Ligation Buffer N/A N/A Ada Ligase

PCR Master Mix N/A

11.9 Aspiration hazard:

Fragment & ERA Buffer N/A
Fragment & ERA Enzyme Mix N/A
Ada Ligation Buffer N/A
Ada Ligase N/A
PCR Master Mix N/A

SECTION 12: Ecological Information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|----------------------------------|----------------------------------|-------------|
| Ada Ligation Buffer | | | |
| Dithiothreitol | N/A | N/A | N/A |
| Ada Ligase | | | |
| Glycerol | Eyes - mild irritant | Fish - Oncorhynchus mykiss | 24 h 500 mg |
| PCR Master Mix | | | |
| Glycerol | Eyes - mild irritant | 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 |

12.2 Persistence and degradability: N/A 12.3 Bioaccumulative potential: N/A 12.4 Mobility in soil: N/A Results of PBT and vPvB 12.5 N/A 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 Schedules | |
| International | 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.