

MATERIAL SAFETY DATA SHEET

PickMutant™ Site-directed Mutagenesis Kit

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. PRODUCT DETAILS

Trade Name: PickMutant™ Site-directed Mutagenesis Kit

Catalog Number	Size
MT001	15 rxn

1.2. COMPANY DETAILS

Supplier: Canvax Reagents S.L., Luis de Mercado St. 19, Boecillo Technological Park, Valladolid (Spain)

1.3. EMERGENCY TELEPHONE NUMBER

European emergency number: 112 Spain:
CHEMTREC 900-868538
CHEMTREC (Barcelona) +(34)-931768545

2. HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The product is a kit consisting of different buffers and reagents. The classification of the ingredients can be obtained from section 3.

Labelling elements



Hazard statements:

H227	Combustible Liquid
H320	Cause eye irritation
H317:	May cause allergic skin reaction
H318:	May cause serious eye damage



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Cautionary advice:

P305+P351+P338+P310	Rinse cautiously with water for at least 15 minutes if in contact with eyes. Remove contact lenses, if present and easy to do and continue rinsing. Call a poison control center or doctor/physician immediately.
P210	Keep away from flames and hot surfaces. No smoking.
P280	Wear eye or face protection
P273	Avoid release to the environment.

3. CHEMICAL CHARACTERIZATION

Chemical Name	Ingredient	CAS Number	%
Proofreading DNA polymerase MasterMix 2X	Glycerol	56-81-5	≥ 30% - <40 %
Proofreading DNA Polymerase MasterMix 2X	Ammonium sulphate	7783-20-2	<3 %
Glue Enzyme Buffer (10x)	Glycerol	56-81-5	≥ 50% - <70 %

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

4. FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

If inhaled: After inhalation: fresh air.

In case of skin contact: Rinse skin with water/shower.

After eye contact: Rinse thoroughly with water. Remove contact lenses.

After swallowing: After swallowing: make drink water (maximum 2 glasses), in case of discomfort consult a doctor.

4.2. MAIN SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

The most important known symptoms and effects are described on the label (see section 2.1) and/or in section 11.



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4.3. INDICATION OF ANY MEDICAL ATTENTION AND SPECIAL TREATMENT TO BE GIVEN IMMEDIATELY

No data available.

5. FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable extinguishing media

Water Foam Carbon dioxide (CO₂) Dry powder

Unsuitable extinguishing media

There are no extinguishing agent limitations for this substance/mixture.

5.2. SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

In a fire or if heated, a pressure increase will occur, and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

5.3. ADVICE 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Information for non-emergency services personnel: Avoid inhalation of dust. Evacuate the danger area, follow emergency procedures, consult experts.

Personal protective equipment, see section 8.

6.2. ENVIRONMENTAL PRECAUTIONS

Do not allow the product to enter the sewage system.



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6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Cover sewers. Collect, collect and vacuum spills. Observe possible material restrictions (see notes in sections 7 or 10). Collect dry and proceed with waste disposal. Rinse. Avoid dust formation.

6.1. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

For waste disposal see section 13

7. HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

See precautions in section 2.1.

7.2. CONDITIONS FOR SAFE STORAGE INCLUDING ANY INCOMPATIBILITIES

Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3. Specific end uses

Industrial applications, Professional applications.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. EXPOSURE CONTROLS

If user operations generate dust, fumes, gas, vapor 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.



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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.

8.2. INDIVIDUAL PROTECTION MEASUREMENTS

Personal protection

Eye/face protection

Wear eye protection equipment tested and approved according to relevant governmental standards such as NIOSH (USA) or EN 166 (EU).

Safety glasses

Skin protection

Avoid skin contact by wearing chemical resistant gloves, a lab coat and other protective equipment depending on the conditions of use. Inspect gloves for chemical breakdown and replace them at regular intervals. Clean protective equipment regularly. Wash hands and other exposure areas with mild soap and water before eating, drinking and when leaving work. Have a safety shower available

Respiratory Protection

A respiratory protection program complying with OSHA requirements 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant the use of a respirator.

Do not allow product to enter sewage system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. BASIC INFORMATION ON PHYSICAL AND CHEMICAL PROPERTIES

- a) Appearance Form: liquid
- b) Odor: No data available
- c) Olfactory threshold: No data available.
- d) pH: Buffers with different pH.
- e) Melting point: No data available
- f) Initial boiling point and boiling range: RNase-free water: 100 °C
- g) Flash point: No data available
- h) Evaporation Rate: No data available
- i) Flammability (solid, gas): Not available



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j) Upper/lower flammability or explosive limits: Not available

k) Vapor pressure RNase-free water: 23 hPa (20 °C)

l) Vapour density No data available

m) Density No data available

Relative density No data available

n) Auto-ignition temperature: No data available

o) Decomposition Temperature: No data available



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10. STABILITY AND REACTIVITY

10.1. REACTIVITY

Generally valid for combustible organic substances and mixtures: in case of fine spreading, in a swirled state, an explosion hazard must be reckoned with in general.

10.2. CHEMICAL STABILITY

The product is chemically stable under normal conditions (at ambient temperature).

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No data available.

10.4. CONDITIONS TO AVOID

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

10.5. INCOMPATIBLE MATERIALS

No data available.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

In case of fire: see section 5.

11. TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Mix

Acute Toxicity:

Proofreading DNA polymerase MasterMix 2X	LD50 dermal - rat - 40000 mg/kg LD50 oral - rabbit - 14500 mg/kg
Glue Enzyme Buffer (10x)	LD50 oral - rat - 12600 mg/kg LD50 oral - mouse - 2800 mg/kg

Skin corrosion or irritation:



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Serious eye damage/irritation

Causes eye irritation.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposures

No data available

Aspiration hazard

No data available

11.2. ADDITIONAL INFORMATION

Endocrine disrupting properties

Product:

Assessment: The substance/mixture does not contain components that have endocrine disrupting properties according to Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission

Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Based on our information, we believe that the chemical, physical and toxicological properties have not been adequately investigated.

Hazardous characteristics cannot be excluded, but are unlikely if handled properly.



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12. ECOLOGICAL INFORMATION

12.1. ECOTOXICITY EFFECTS:

No information available

12.2. MOBILITY

Not information Available

12.3. BIOACCUMULATION POTENTIAL

Not information Available

12.4. BIODEGRADATION

Not information Available

12.5. RESULTS OF THE PBT AND VPVB ASSESSMENT

This substance/mixture does not contain components that are considered to be bioaccumulative and persistent toxic (PBT) or very bioaccumulative and very persistent (vPvB) at levels of 0.1% or higher.

12.6. ENDOCRINE DISRUPTING PROPERTIES

Assessment: The substance/mixture does not contain components that have endocrine disrupting properties according to Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1 % or higher.

12.7. OTHER ADVERSE EFFECTS

Do not allow undiluted product or large quantities of it to reach ground water, watercourses or sewage systems.

No ecological information available

13. DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Do not contaminate ponds, waterways or ditches with chemicals or used containers, send them to a licensed waste management company.

Waste should be disposed of in accordance with local regulations and nation to originals.

Do not mix with other wastes. Handle soiled containers like the product itself.

Waste Directive 2008/98 note / EC.



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14. TRANSPORT INFORMATION

14.1 UN Number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN Proper Shipping Name: - ADR/RID: - Non-dangerous goods

ADR/RID: Non-dangerous goods

IMDG: Non-dangerous goods

IATA: Non-dangerous goods

14.3 Transport Hazard Class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental Hazards

ADR/RID: no IMDG Marine pollutant:

no

IATA: no

14.6 Special precautions for users

Other information

Product not hazardous according to transport regulation criteria.

15. REGULATORY INFORMATION

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

The safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this product.

16. OTHER INFORMATION

The above information is believed to be correct but is not intended to be exhaustive and should be used for guidance only. The information contained in this document is based on the present state of our knowledge and is applicable to the appropriate safety precautions for the product.



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Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IDQO: Chemical Oxygen Demand

BOD5: Biological Oxygen Demand after 5 days

BCF: Bioconcentration Factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective Concentration

50Log POW: Logarithm Partition Coefficient Octanol-Water

Koc: Partition Coefficient for Organic Carbon

SDS: Safety Data Sheet

UFI: Unique Formula Identifier

IARC: International Agency for Research on Cancer

