Material Safety Data Sheet Version No.: 4.0(2023-03-22)

# Enzyme dilution buffer for Pfu DNA polymerase

## 1. PRODUCT AND COMPANY INFOMATION

Product Name : Enzyme dilution buffer for Pfu DNA polymerase

Product Number : N/A(buffer)

Product Use: For research use only and are not intended for human or animal diagnostics,

therapeutic , or other clinical uses, unless otherwise stated.

#### Company

Bioneer corporation

8-11, Munpyeongseo-ro, Daedeok-gu, Daejeon 306-220, Republic of Korea

+82-42-930-8777

## 2. HAZADS IDENTIFICATION

GHS - Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Pictogram : None

Signal Word : None

Hazard statements: None

Precautionary statements: None

## 3. Composition/Information on Ingredient

CAS No.	Component name	weight(%)
77-86-1	Tris base	1~2
56-81-5	Glycerol	40~70

Note : The CAS number listed above is for Tris. HCl ( < 1%) was added to the Tris to alter the pH level.

The ingredients listed in this section include only those items that have more than 1% of a component classified as hazardous

and 0.1% of a component classified as carcinogenic.

## 4. FIRST AID MEASURES

## Eye contact

- Flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating evelids.

## Skin contact

- Wash off immediately with plenty of water.

#### Inhaled

- Move to fresh air

#### Swallowed

- If the person is conscious, wash out mouth with water. Call a physician.

## 5. Firefighting measures

#### Suitable extinguishing media

- Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special hazards arising from the substance or mixture

- Carbon oxides, nitrogen oxides (NOx), Sulphur oxides

## Advice for firefighters

- Wear self contained breathing apparatus for fire fighting if necessary.



## 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

- Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

#### Environmental precautions

- Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

#### Methods and materials for containment and cleaning up

- Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers

for disposal.

## 7. Handling and storage

## Precautions for safe handling

- No special measures required.
- Provide appropriate exhaust ventilation at places where dust is formed.
- Normal measures for preventive fire protection.

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

- Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
- Recommended storage temperature: -20 °C



## 8. Exposure controls/personal protection

## Appropriate engineering controls

- Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the

end of workday.

## Personal protective equipment

#### Respiratory protection

- Respiratory protection not required.

#### Eye/face protection

- Goggles recommended during refilling.

## Skin protection

- Handle with gloves.

#### **Body Protection**

- impervious clothing



## 9. Physical and chemical properties

Appearance : form - liquid color - colorless Odour : odourless Odour Threshold : no data available **pH**: 8.2 Melting point/freezing point : no data available Initial boiling point and boiling range : no data available Flash point : no data available Evaporation rate : no data available Flammability (solid, gas) : no data available Upper/lower flammability or explosive limits : no data available Vapour pressure : no data available Vapour density : no data available Relative density : no data available Partition coefficient: n- octanol/water : no data available Auto-ignition temperature : no data available Decomposition temperature : no data available Viscosity : no data available Explosive properties : no data available

## 10. Stability and reactivity

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : no data available

Conditions to avoid : no data available

Incompatible materials : no data available

Hazardous decomposition products : no data available



## 11. Toxicological information

Acute toxicity : no data available Skin corrosion/irritation : no data available Serious eye damage/eye irritation : no data available Respiratory sensitization : no data available skin sensitization : no data available Carcinogenicity : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC Germ cell mutagenicity : no data available Specific target organ toxicity – single exposure : no data available Specific target organ toxicity – repeated exposure : no data available

Aspiration hazard : no data available

## 12. Ecological information

Toxicity : no data available

Persistence and degradability : no data available

Bioaccumulative potential : no data available

Mobility in soil : no data available

## 13. Disposal considerations

Waste treatment methods : Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Dispose of as unused product.



**MSDS** 

## 14. Transport information

UN number : no data available

## UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

Transport hazard class : no data available

Packaging group : no data available

Environmental hazards : no data available

Special precautions for user : no data available

## 15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

**Chemical Safety Assessment** 

For this product a chemical safety assessment was not carried out

## 16. Other information

#### Material source

Korea Occupational Safety and Health Agency, National Chemicals Information System

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#### Further information

This information is based on our present knowledge and shall be used only as a guide. However, this shall not constitute a guarantee for any specific product features. BIONEER is not held liable for any damage resulting from handing or from contact with the above products.