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

10X reaction buffer for Pfu DNA polymerase

1. PRODUCT AND COMPANY INFOMATION

Product Name : 10X reaction 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

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2. HAZADS IDENTIFICATION

GHS - None

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	3~4
7447-40-7	Potassium Chloride	1~2
7783-20-2	Ammonium sulfate	1~2

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

- Rinse opened eye for several minutes under running water.

Skin contact

- Wash skin with soap and copious amount of water.

Inhaled

- Move to fresh air

Swallowed

- If symptoms persist consult doctor.

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

- No further relevant information available.

Advice for firefighters

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



6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- Avoid breathing or contact with vapors, mist of gas.

Environmental precautions

- Do not let product enter drains.

Methods and materials for containment and cleaning up

- 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**: 9.0 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

 $\textbf{Waste treatment methods}: Offer \ surplus \ and \ non-recyclable \ solutions \ to \ a \ licensed \ disposal \ company.}$

Contaminated packaging : Dispose of as unused product.



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.