

Material Safety Data Sheet

Version No.: 2.0(29-04-2014)

Top DNA polymerase**1. PRODUCT AND COMPANY INFORMATION****Product Name** : Top DNA polymerase**Product Number** : E-3100, E-3100-1, E-3100-2, E-3100-3**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. HAZARDS 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 eyelids.

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.
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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.
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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.
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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
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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
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9. Physical and chemical properties

Appearance : form – liquid

colour – 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: noctanol/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 sensitisation : no data available

skin sensitisation : 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.

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 handling or from contact with the above products.
