

# Material Safety Data Sheet

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

**Product name:** Taq DNA Polymerase

**Supplier:** HANGZHOU BIOER TECHNOLOGY CO.,LTD

**Address:** 1192 BinAn Rd.Hi-tech(Binjiang) District, Hangzhou, P.R.China

**Site Phone Number:** +86-571-87774307

**Emergency telephone number:** +86-571-87774567-5278; +86-800-857-1279

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Description 1:** Taq DNA Polymerase

| Components         | CAS Number | Weight % |
|--------------------|------------|----------|
| Glycerol           | 56-81-5    | 50 - 60  |
| Nonidet P-40       | 9016-45-9  | 0.1-<1   |
| Tween 20           | 9005-64-5  | 0.1-<1   |
| Potassium chloride | 7447-40-7  | 1-5      |
| Taq DNA Polymerase | N/A        | 5U/ul    |

**Description 2:** PCR Reaction Buffer

| Components         | CAS Number | Weight % |
|--------------------|------------|----------|
| Potassium chloride | 7447-40-7  | 1-5      |

## 3. HAZARDS IDENTIFICATION

### Emergency Overview

**NFPA Ratings:** Health= 1 Flammability= 0 Reactivity= 0 Special= I

**Special Definitions:** A=Allergen CA=Carcinogen CO=Corrosive F=Flammable H=Harmful I=Irritant Ox=Oxidizer PB=Potential Biohazard R=Reproductive S=Sensitizer T=Toxic T+=Highly Toxic W=Water Reactive

**Principle routes of exposure:** Ingestion, skin and/or eye contact.

**Inhalation:** Avoid breathing vapors or mists. May cause irritation of respiratory tract.

**Ingestion:** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Skin contact:** Prolonged skin contact may cause irritation.

**Eye contact:** May cause irritation.

**Sensitization or Odor threshold:** None.

**Medical conditions aggravated by exposure:** None known.

**Additional information:** GLYCEROL - May cause kidney injury with chronic exposure.

## 4. FIRST AID MEASURES

**Inhalation:** Consult a physician. Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**Skin contact:** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Ingestion:** Call a physician immediately. Do not induce vomiting without medical advice.

**Eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Notes to physician:** None determined.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam.

**Unusual hazards:** None known.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use personal protective equipment. Evacuate personnel to safe areas. Remove all sources of ignition.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Do not let product enter drains.

**Methods for cleaning up:** Never return spills in original containers for re-use. Soak up with oil absorbent material. Sweep up or vacuum (if powder) or soak up with inert absorbent material (if liquid), then place into a suitable clean, dry, closed container, and label for disposal.

## 7. HANDLING AND STORAGE

**Handling:** Protect from contamination. Wear personal protective equipment.

**Storage:** No special precautions required.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures:** Not applicable.

### Personal Protective Equipment

**Respiratory protection:** Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow the OSHA regulation, 29CFR1910.134. Always use a NIOSH approved respirator when necessary.

**Hand protection:** Wear appropriate protective gloves to prevent skin contact. Replace torn or punctured gloves promptly.

**Skin and body protection:** Wear appropriate body protection to prevent skin contact.

**Eye protection:** Wear appropriate eye protection to prevent eye contact.

**Hygiene measures:** When using, do not eat, drink or smoke. Keep away from food and drink. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Color:** Colorless.

**Odor:** None.

**pH:** 9-9.3

**Physical state:** Liquid.

**Solubility in water:** Soluble.

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Polymerization:** None under normal processing.

**Hazardous decomposition products:** GLYCEROL - decomposes upon heating above 290C, forming corrosive gas (acrolein).

**Materials to avoid:** Strong acids. Strong bases. Strong oxidising agents.

## 11. TOXICOLOGICAL INFORMATION

| Components | NIOSH -<br>Selected LD50s and LC50s: | NIOSH Pocket Guide -<br>Target Organs: |
|------------|--------------------------------------|--|
|------------|--------------------------------------|--|

|                    |   |                                      |
|--------------------|---|--------------------------------------|
| Glycerol           | =12600 mg/kg Oral LD50 Rat<br>>21900 mg/kg Dermal LD50 Rat<br>>570 mg/m <sup>3</sup> Inhalation LC50 Rat 1h | respiratory system skin eyes kidneys |
| Nonidet P-40       | =1310 mg/kg Oral LD50 Rat   |                                      |
| Tween 20           | =36700 µL/kg Oral LD50 Rat  |                                      |
| Potassium chloride | =2600 mg/kg Oral LD50 Rat   |                                      |

| Components         | NIOSH -<br>Selected LD50s and LC50s: | NIOSH Pocket Guide -<br>Target Organs: |
|--------------------|--------------------------------------|--|
| Potassium chloride | =2600 mg/kg Oral LD50 Rat            |  |

**Inhalation:** No additional data available

**Skin:** No additional data available

**Oral:** No additional data available

**Mutagenic effects:** No data is available on the product itself

**Reproductive toxicity:** No data is available on the product itself

## 12. ECOLOGICAL INFORMATION

**Bioaccumulation:** Not determined

**Aquatic toxicity:** No data is available on the product itself

**Ecotoxicity effects:** No data is available on the product itself

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations.

This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

## 14. TRANSPORT INFORMATION

Is product hazardous to ship? No.

### DOT

|                                   |                                     |  |                                      |
|-----------------------------------|-------------------------------------|--|--------------------------------------|
| <b>Proper shipping name:</b> None |                                     |  |                                      |
| <b>UN Number:</b> Not applicable  | <b>Hazard class:</b> Not applicable | <b>Subsidiary risk:</b> Not applicable | <b>Packing group:</b> Not applicable |

### ICAO/IATA

|                                   |                                     |  |                                      |
|-----------------------------------|-------------------------------------|--|--------------------------------------|
| <b>Proper shipping name:</b> None |                                     |  |                                      |
| <b>UN Number:</b> Not applicable  | <b>Hazard class:</b> Not applicable | <b>Subsidiary risk:</b> Not applicable | <b>Packing group:</b> Not applicable |

## 15. OTHER INFORMATION

**Reason for revision:** Not applicable

**References:** None.

**Additional advice:** None

**Prepared by:** HANGZHOU BIOER TECHNOLOGY CO.,LTD

**End of Safety Data Sheet**