



## Material Safety Data Sheet

### 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name                   **1kb DNA Ladder**  
Product Code                   DNA-032

#### SUPPLIER

Name                                Biochemical Operations Department TOYOBO Co., Ltd.  
Address                            2-8 Dojima Hama 2-chome, Kita-Ku OSAKA 530-8230 JAPAN  
Emergency Telephone No.       +81-6-6348-3786  
Fax No.                             +81-6-6348-3833

### 2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product                Preparation  
(Substance/Preparation)  
Chemical Nature  
Components                       DNA  
Chemical Name                   Deoxyribonucleic acid  
Synonym (generic name)  
CAS No.  
Concentration                    <1%

### 3 HAZARDS IDENTIFICATION

Most Important Hazards        Few adverse human health effects are anticipated.  
  
Specific Hazards                 Not available

### 4 FIRST-AID MEASURES

Inhalation                        In case of irritation by inhaling this product, move affected person to fresh air and await recovery. If irritation persists, seek immediate medical attention.  
  
Skin Contact                      Wash with clean water, immediately.  
  
Eye Contact                        Flush eyes with clean water for more than 15 min, and seek medical attention.  
  
Ingestion                         Induce vomiting.  
If indisposition continues, seek medical attention.

### 5 FIRE-FIGHTING MEASURES

Extinguishing Media            Water, Carbon Dioxide, Foam, Dry Chemical Powder

### 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions            Few adverse human health effects are anticipated.  
Environmental Precautions      Recovered as possible  
  
Methods for Cleaning up        Sweep up and place in a bag. Avoid raising a dust. Waste disposal.  
Ventilate the area and wash the spill site after pick up is complete.



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### 7 HANDLING AND STORAGE

#### HANDLING

Technical Measures      Wear a dust mask, latex gloves and safety glasses. Set up good ventilation and exhaust system in the work area.

Precautions                Keep away from fire or heat.

Safe Handling Advice      Good laboratory technique should be used when handling this product.

#### STORAGE

Technical Measures      Store in the sampling tube.

Storage Conditions       Store at about -20°C

Incompatible Products    Oxidizers

### 8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection    Wear a dust mask. Set up good ventilation and exhaust system in the work area.

Hand Protection            Chemical safety gloves.

Eye Protection             Chemical safety goggles.

Skin and Body Protection   Long sleeves to prevent contact with skin.

### 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	liquid
Colour	colorless
Odour	none
pH	7.0-8.5
Boiling Point	Not available
Melting Point	Not available
Decomposition Temperature	Not available
Flash Point	Not available
Density	Not available
Solubility	Soluble in water.

### 10 STABILITY AND REACTIVITY

Stability	Stable under normal handling and storage conditions
Possible Hazardous Reactions	None
Conditions to Avoid	Not available
Material to Avoid	Strong acids, strong alkalines and strong oxidizers

### 11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Not available (probably very low)
Local Effects	Not available (probably very low)



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### 12 ECOLOGICAL INFORMATION

Mobility	Not available
Persistence/Degradability	Not available
Bioaccumulation	Not available

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### 13 DISPOSAL CONSIDERATIONS

Waste from Residues	Dispose of in accordance with all applicable local and national laws and regulations.
Contaminated Packaging	Dispose of in the same way as the material.

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### 14 TRANSPORT INFORMATION

International Regulations	
UN Classification Number	Not classified
	Follow all of the laws and regulations in your respective country.
Specific Precautions	Do not drop, overturn, or destroy containers for heavy load. To prevent packages from breaking, keep dry and handle with care.

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### 15 REGULATORY INFORMATION

Follow all of the laws and regulations in your country.

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### 16 OTHER INFORMATION

Notice	The information in this MSDS, to the best of our knowledge, is accurate and correct. However, TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information.
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