



100bp Ladder Marker  
First issue : Nov. 20, 2008

MSDS No. 00150F

## Material Safety Data Sheet

### 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name **100bp Ladder Marker**  
Product Code DNA-035

#### SUPPLIER

Name Life Science Department TOYOBO Co., Ltd.  
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### 2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product Preparation  
(Substance/Preparation)

Chemical Nature

Parts Name	Main components	CAS No.
100bp Ladder Marker	Polynucleotide	-
	Tris(Hydroxymethyl)aminomethane	77-86-1
	EDTA·2Na	6381-92-6
6x Loading Dye	Tris(Hydroxymethyl)aminomethane	77-86-1
	EDTA·2Na	6381-92-6
	Glycerol	56-81-5
	Bromophenol blue	115-39-9
	Orange G	1936-15-8

Components Contributing to the Hazard

Common Chemical Name	Glycerol
Synonyms	Glycerin
Chemical formula	CH <sub>2</sub> OHCHOHCH <sub>2</sub> OH
CAS No.	56-81-5
Concentration	6x Loading Dye: 30%

### 3 HAZARDS IDENTIFICATION

Most Important Hazards May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Specific Hazards Nothing particular

### 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 possible, seek medical attention.

### 5 FIRE-FIGHTING MEASURES

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

Protection of fire-fighters Fire-fighting should be done from the windward side of fire area. Fire-fighters should wear proper protective equipment in case of large scale fire.



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### 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions Avoid substance contact and inhalation.  
Environmental Precautions Avoid disposition to the environment.  
Methods for Cleaning up Wipe up with a disposable wipe, place in a bag and hold for waste

### 7 HANDLING AND STORAGE

#### HANDLING

Technical Measures Pay attention to contact to the human body.  
Precautions Avoid substance contact. After handling, wash with clean water.  
Safe Handling Advice Good laboratory technique should be used when handling this product.

#### STORAGE

Technical Measures Store in the laboratory bottle.  
Storage Conditions Store at -20°C.  
Packaging Materials Store in the original package.

### 8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

ENGINEERING MEASURES Set up good ventilation and exhaust system in the work area.

#### Control Parameter

Limit Values	Glycerol
JSOH OEL	Not established
ACGIH TLV	10mg/m <sup>3</sup>
OSHA PEL	Not established

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection Wear a dust mask as appropriate.  
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 at room temperature, solid at -20°C  
Colour 100bp Ladder Marker: colorless  
6x Loading Dye: blue solution  
Odour None  
pH 7.0-8.0  
Flash Point No inflammability due to solution, but glycerol whose flash point is 160°C may stay behind after volatilization(6x Loading Dye).  
Explosion limit Not explosible  
Density Not available  
Solubility Soluble in water

### 10 STABILITY AND REACTIVITY

Stability Stable at -20°C  
Possible Hazardous Reactions None  
Conditions to Avoid High Temperature, direct sunlight  
Material to Avoid Strong oxidizers and strong reducers  
Hazardous Decomposition Not available  
Product



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### 11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Not available
Local Effects	May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

### 12 ECOLOGICAL INFORMATION

Mobility	Soluble in water and diffusible into water environment.
Persistence/Degradability	Not available
Bioaccumulation	Not available

### 13 DISPOSAL CONSIDERATIONS

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

### 14 TRANSPORT INFORMATION

International Regulations	
UN Classification Number	Not classified
	Follow all of the laws and regulations in your respective country.
Specific Precautions	To prevent packages from breaking, handle with care.

### 15 REGULATORY INFORMATION

Follow all of the laws and regulations in your country.

### 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. The MSDS is subject to revision as new information becomes available.
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