



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	Biotech support Department TOYOBO Co., Ltd.
Address	2-2-8 Dojima Hama Kita-ku Osaka, 530-8230 Japan
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2 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product (Substance/Preparation)	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 ₂ OHCHOHCH ₂ 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 ³
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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