



## Material Safety Data Sheet

### 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name **KOD-Plus- Mutagenesis Kit**  
Product Code **SMK-101**

#### SUPPLIER

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

Chemical Product Preparation

(Substance/Preparation)

Chemical Nature Aqueous solutions of enzyme, antibody and other compounds.

Parts Name	Main components	CAS No.	Concentration
KOD -Plus-	DNA Polymerase	-	<1%
	Antibody	-	<1%
	Glycerol	56-81-5	Ca. 50%
10x Buffer for iPCR	Tris(hydroxymethyl)aminomethane	77-86-1	<10%
	Magnesium Sulfate	10034-99-8	Ca. 20mM
2mM dNTPs	deoxyadenosine 5'triphosphate	1927-31-7	2mM each
	deoxycytidine 5'triphosphate	102783-51-7	
	deoxyguanosine 5'triphosphate	93919-41-6	
	deoxythymidine 5'triphosphate	18423-43-3	
DpnI	Enzyme	-	<1%
	Glycerol	56-81-5	Ca. 50%
T4 Polynucleotide Kinase	Enzyme	-	<1%
	Glycerol	56-81-5	Ca. 50%
Ligation high	Ligase	-	<1%
	Magnesium Chloride	7791-18-6	<1%
	Adenosine 5'triphosphate	51963-61-3	<1%
	Tris(hydroxymethyl)aminomethane	77-86-1	<10%
Control Plasmid	DNA	-	<1%
Control Primer #1	oligo DNA	-	<1%
Control Primer #2	oligo DNA	-	<1%

### 3 HAZARDS IDENTIFICATION

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

Specific Hazards Not available



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### 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 minutes 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
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### 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid substance contact
Environmental Precautions	Do not discharge directly into sewers.
Methods for Cleaning up	Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

### 7 HANDLING AND STORAGE

#### HANDLING

Technical Measures	Wear protective equipments and avoid contact with eyes and skin. Handle with ventilation and local exhaust system.
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
Incompatible Products	Oxidizers
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.

#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Wear a gas mask.
Hand Protection	Chemical safety gloves.
Eye Protection	Chemical safety goggles.
Skin and Body Protection	Long sleeves to prevent contact with skin.



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### 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	liquid
Colour	colourless
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	None
Reactions	
Conditions to Avoid	Not available
Material to Avoid	Strong acids, strong alkalines and strong oxidizers
Hazardous Decomposition Product	Not available

### 11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Not available
Local Effects	Not available

### 12 ECOLOGICAL INFORMATION

Mobility	Not available
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 of in the same way as the material.

### 14 TRANSPORT INFORMATION

International Regulations	
UN Classification Number	Not classified
Specific Precautions	Follow all of the laws and regulations in your respective country. 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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