TOYOBO

KOD One™ PCR Master Mix (-Blue-)
First issue : Jul. 3, 2018
Revised : May. 24, 2024
SDS No. 1462F

Safety Data Sheet

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name	**KOD One™ PCR Master Mix (-Blue-)**
Product Code	KMM-101、KMM-101S、KMM-101L、KMM-101NV、KMM-101NVS、KMM-121、KMM-151、KMM-201、KMM-201S、KMM-201NV、KMM-201NVS、KMM-221、KMM-251
SUPPLIER	
Name	TOYOBO Co., Ltd.
Address	Osaka Umeda Twin Towers South, 1-13-1 Umeda Kita-ku, Osaka 530-0001, Japan
Department	Biotechnology Overseas Sales and Marketing Department
Emergency Telephone No.	+81-6-6348-3846
Fax No.	+81-6-6348-3833
Recommended use and restrictions on use	PCR kit for DNA amplification

2 HAZARDS IDENTIFICATION

Most Important Hazards	Few adverse human health effects are anticipated.
GHS Classification	
Hazard class and category	
Physical Hazards	Classification not possible
Health Hazards	
Acute toxicity - oral	Category 5
Skin corrosion/Irritation	Category 3
Serious eye damage/Eye irritation	Classification not possible
Environmental Hazards	Classification not possible
Label elements	
Pictograms or symbols	—
Signal word	Warning
Hazard statements	May be harmful if swallowed. Causes mild skin irritation.
Precautionary statement(s)	
Prevention	—
Response	Call a POISON CENTER or doctor / physician if you feel unwell. If skin irritation occurs: Get medical advice / attention.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product (Substance/Preparation)	Mixture
Chemical Nature	Aqueous solution of enzyme, substrate, etc.

Main components	CAS No. (EC NO.)
Tris(Hydroxymethyl)aminomethane	77-86-1
Magnesium sulfate	7487-88-9
Deoxyadenosine triphosphate	1927-31-7
Deoxycytidine triphosphate	102783-51-7
Deoxyguanosine triphosphate	93919-41-6
Deoxythymidine triphosphate	18423-43-3
Additive	Nondisclosure
DNA polymerase	(EC 2.7.7.7)
monoclonal antibody	-
Glycerol	56-81-5
Poly(oxyethylene) Nonylphenylether	9016-45-9

Components Contributing to the Hazard

Common Chemical Name (or Generic Name)	Glycerol	Poly(oxyethylene) Nonylphenylether	Additive
Synonyms	Glycerin	Nonidet P-40	Nondisclosure
Contained Parts:Percentage	<5%	<0.01%	<3%
Chemical formula	$CH_2OHCHOHCH_2OH$	$HO(C_2H_4O)_n$-C_6H_4-C_9H_{19}	Nondisclosure
CAS No.	56-81-5	9016-45-9	Nondisclosure

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4 FIRST-AID MEASURES

Inhalation	Remove person to fresh air. Call a doctor if you feel unwell.
Skin Contact	Wash with clean water, immediately.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	If swallowed: Rinse mouth. Do NOT induce vomiting. If indisposition continues, seek medical attention.

5 FIRE-FIGHTING MEASURES

Extinguishing Media	Water, Carbon Dioxide, Foam, Dry Chemical Powder
Specific extinguishing metho	Fire-fighting should be done from the windward side of fire area.
Protection of fire-fighters	Fire-fighters should wear proper protective equipment in case of large scale fire.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective gear to avoid eye/skin contact and inhalation.
Environmental Precautions	Avoid disposition to the environment.
Methods for Cleaning up	Use cloth, paper or anything similar to soak up the solution leaking out of the container. Take up under vacuum using dust collecting filter.

7 HANDLING AND STORAGE

HANDLING

Technical Measures	Wear protective equipments and avoid contact with eyes and skin. Handle with ventilation and local exhaust system.
Safe Handling Advice	Always keeping things tidy and in order, and keep laboratory Clean..
Hygiene measures	After handling, wash hands with clean water.

STORAGE

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

8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

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

Control Parameter

Limit Values

	Glycerol	Poly(oxyethylene) Nonylphenylether	Additive
JSOH OEL	Not established	Not established	Not established
ACGIH TLV	10mg/m^3	Not established	Not established
OSHA PEL	total dust:15mg/m^{3}TWA respirable fr.: 5mg/m^{3}TWA	Not established	Not established

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Wear a dust mask.
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	KOD One™ PCR Master Mix: None KOD One™ PCR Master Mix -Blue-: Blue
Odour	None
pH	7.0-9.0
Flash Point	No flammability due to aqueous solution, but glycerol whose flash point 160°C may stay behind after volatilization.
Boiling Point	Classification not possible
Melting Point	Classification not possible
Decomposition Temperature	Classification not possible
Specific Gravity	1.0-1.2
Solubility	Soluble in water

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10 STABILITY AND REACTIVITY

Stability	Stable at -20°C
Possible Hazardous Reactions	None
Conditions to Avoid	Strong heat and Direct sunlight
Material to Avoid	strong oxidizers and strong reducers
Hazardous Decomposition Product	Classification not possible

11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Classification not possible
Skin corrosion/ irritation	May cause eye and skin irritation.
Serious eye damage/ eye irritation	May cause respiratory tract irritation.

Toxicological information on the component of this product

	Glycerol	Poly(oxyethylene) Nonylphenylether	Additive
Acute toxicity (LD50)	Oral-mouse: 4090mg/kg Oral-rat: 12.6g/kg	Oral-mouse: 3500mg/kg Oral-rat: 4190mg/kg	Oral-rat: 50mg/kg*
Skin corrosion/Irritation	Category 3	Category 3	Category 2
Serious eye damage/Eye irritation	Category 2B	Category 2A	Category 3

*Acute toxicity (LD50) of Additive is estimated from similar agent.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Not available
Persistence/Degradability	Poly(oxyethylene) nonylphenylether isn't biodegradable. Enzyme, protein and glycerol are biodegradable.
Bioaccumulation	Not available
Mobility	Soluble in water and diffusible into

13 DISPOSAL CONSIDERATIONS

Waste from Residues	Dispose of in accordance with all applicable local and national laws and regulations.
Contaminated Packaging	Dispose of in accordance with all applicable local and national laws and regulations.

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. Store at about -20°C when it is transported.

15 REGULATORY INFORMATION

Follow all of the laws and regulations in your country.

16 OTHER INFORMATION

Notice

Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. The information in this SDS, 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 information shall not be taken as being all inclusive and is to be used only a guide. All materials and mixtures may be present unknown hazards and should be used with caution. The SDS is subject to revision as new information becomes available.