



Realtime PCR Master Mix
First issue : Jun. 25, 2014
SDS No.882F

Safety Data Sheet

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name **Realtime PCR Master Mix**
Product Code **QPK-101**

SUPPLIER

Name **TOYOBO Co., Ltd.**
Address **2-8 Dojima Hama 2-chome, Kita-Ku OSAKA 530-8230 JAPAN**
Department **Life Science Department**
Emergency Telephone No. **+81-6-6348-3786**
Fax No. **+81-6-6348-3833**
Recommended use and restrictions on use **realtime PCR kit**

2 HAZARDS IDENTIFICATION

Most Important Hazards **Few adverse human health effects are anticipated. Glycerol whose flash point 160°C is contained.**
Specific Hazard **Not available**
GHS classification **Classification not possible**

3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product **Mixture**
(Substance/Mixture)
Chemical Nature **Aqueous solutions of enzyme, antibody and other compounds.**

Main components	CAS No. (EC No.)	Concentration
Taq DNA polymerase	(EC 2.7.7.7)	<0.1%
Anti-Taq antibodies (monoclonal antibody)	-	<0.1%
Bovine Serum Albumin	-	<0.1%
Glycerol	56-81-5	Ca. 2%
Tris(hydroxymethyl) aminomethane	77-86-1	<1%
Magnesium chloride	7791-18-6	<1%
Potassium chloride	7447-40-7	<1%
ROX reference dye	-	<0.001%
deoxyadenosine 5'triphosphate	1927-32-7	<1%
deoxycytidine 5'triphosphate	102783-51-7	
deoxyguanosine 5'triphosphate	93919-41-6	
deoxythymidine 5'triphosphate	18423-43-3	

Components Contributing to the Hazard

Common Chemical Name	Glycerol
Synonyms	Glycerin
Chemical formula	$\text{CH}_2\text{OHCHOHCH}_2$
CAS No.	56-81-5
Concentration	2%



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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. Call a POISON CENTER or doctor if you feel unwell.
Skin Contact	Wash with plenty of clean water, immediately.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention
Ingestion	Try to get the affected person to vomit as much as possible. Seek medical attention, immediately.

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. Fire-fighters should wear proper protective equipment in case of large scale fire.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective equipments and 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 to 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. Avoid substance contact. After handling, wash hands completely.
Precautions	Handle with ventilation and local exhaust system.
Safe Handling Advice	Keep the handling area always clean.

STORAGE

Proper Storage Conditions	Store at -20°C. If it is for a few days, store at 4°C.
Packaging Materials	Store in the original package



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8 EXPOSURE CONTROLS/ PERSONAL PROTECTION ENGINEERING MEASURES

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

Control Parameter

Limit Values

JSOH OEL

ACGIH TLV

OSHA PEL

Glycerol

not established

10mg/m³

total dust: 15mg/m³TWA

respirable fr.: 5mg/m³TWA

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection

Wear a dust mask when needed.

Hand Protection

Wear chemical safety gloves.

Eye Protection

Wear protective eyeglasses or chemical safety goggles.

Skin and Body Protection

Wear lab coat when needed.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State

liquid. Realtime Master Mix freezes at less than -20°C.

Colour

very pale red

Odour

none

pH

6.0-9.0

Flash Point

Not flammable due to aqueous solution, but glycerol whose flash point 160°C may stay behind after volatilization.

Explosion limit

Not explosible

Density

1.0-1.2(g/cm³)

Solubility

Soluble in water.

10 STABILITY AND REACTIVITY

Stability

Stable at below -20°C.

Possible Hazardous

Nothing particular

Reactions

Conditions to Avoid

High temperature, ignition sources, direct sunlight

Material to Avoid

Strong acids, strong alkalines and strong oxidizers

Hazardous Decomposition

Not available

Product

11 TOXICOLOGICAL INFORMATION

Acute Toxicity

Not available

Local Effects

May cause eye and skin irritation.

Toxicological information on the component of this product

Glycerol

Acute toxicity (LD50)

Oral-mouse: 4090mg/kg

Oral-rat: 12.6g/kg



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12 ECOLOGICAL INFORMATION

Mobility	Soluble in water and diffusible into water environment.
Persistence/Degradability	Glycerol, enzyme, antibody, and deoxynucleotide are biodegradable.
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 accordance with all applicable local and national laws and regulations.

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 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 SDS is subject to revision as new information becomes available.
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