

rTth DNA polymerase
Oct. 26, 2017



SDS No.1051F

Safety Data Sheet

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name **rTth DNA polymerase**
Product Code **TTH-301, TTH-3R, TTH-3D, TTH-309, TTH-309L, TTH-329, TTH-329L**

SUPPLIER

Name **Biotech support Department TOYOBO Co., Ltd.**
Address **2-2-8 Dojima Hama Kita-ku Osaka, 530-8230 Japan**
Emergency Telephone No. **+81-6-6348-3786**
Fax No. **+81-6-6348-3833**
Recommended use and restrictions on use **PCR kit for DNA amplification (Reagent for research)**

2 HAZARDS IDENTIFICATION

Parts Name **rTth DNA Polymerase**
Most Important Hazards **rTth DNA Polymerase contain glycerol and may cause eye and skin**
Specific Hazards **Not available**

GHS Classification

Hazard class and category

Physical Hazards **Flammable liquids** **Not classified**

Health Hazards **Skin corrosion /Irritation** **Category 3**

Serious eye damage /Eye irritation **Category 2B**

Environmental Hazards **Classification not possible**

Label elements

Pictogram or symbol **-**

Signal word **Warning**

Hazard statement **Causes mild skin irritation**

Causes eye irritation

Precautionary statement **Wash hands thoroughly after handling**

Response **If skin irritation occurs: Get medical advice/attention.**

IF IN EYES: 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.

Parts Name **10x PCR Buffer and 2mM dNTPs**

Most Important Hazards **Few adverse human health effects are anticipated.**

Specific Hazards **Not available**

GHS Classification **Classification not possible**

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3 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Product (Substance/Mixture)	Mixture	
Chemical Nature	Aqueous solution	
Parts Name	Main components	CAS No. (EC NO.)
TTH-301	DNA polymerase	(EC 2.7.7.7)
	Tris(Hydroxymethyl)aminomethane	77-86-1
	Poly(oxyethylene) octylphenyl ether	9002-93-1
	Glycerol	56-81-5
10×PCR Buffer	Tris(Hydroxymethyl)aminomethane	77-86-1
	Poly(oxyethylene) octylphenyl ether	9002-93-1
Dilution Buffer	Tris(Hydroxymethyl)aminomethane	77-86-1
	Poly(oxyethylene) octylphenyl ether	9002-93-1
	Glycerol	56-81-5
2mM dNTPs	Deoxyadenosine triphosphate	1927-31-7
	Deoxycytidine triphosphate	102783-51-7
	Deoxyguanosine triphosphate	93919-41-6
	Deoxythymidine triphosphate	18423-43-3
Components Contributing to the Hazard		
Parts Name	TTH-301,Dilution Buffer	TTH-301,10× PCRBuffer,Dilution Buffer
Common Chemical Name (or Generic Name)	Glycerol	Poly(oxyethylene) octylphenyl ether
Synonyms	Glycerin	Triton X-100
Chemical formula	$\text{CH}_2\text{OHCHOHCH}_2\text{OH}$	$\text{HO}(\text{C}_2\text{H}_4\text{O})_n\text{-C}_6\text{H}_4\text{-C}_8\text{H}_{17}$
CAS No.	56-81-5	9002-93-1
Concentration	50%	1.00%

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	Rinse cautiously with water a few minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, seek medical attention.
Ingestion	Induce vomiting. If indisposition continues, seek medical attention.

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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.

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.
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 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.
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Control Parameter

Limit Values	Glycerol	Poly(oxyethylene) octylphenyl ether
JSOH OEL	Not established	Not established
ACGIH TLV	10mg/m ³	Not established
OSHA PEL	total dust:15mg/m ³ TWA respirable fr.: 5mg/m ³ TWA	Not established

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.

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9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Colour	colourless
Odour	None
pH	7.0-9.0
Flash Point	No flammability for aqueous solution, but glycerol with the flash point of 160°C may remain after volatilization of water in rTth DNA polymerase or Dilution Buffer.
Boiling Point	Not available
Melting Point	Not available
Decomposition Temperature	Not available
Density	1.0-1.2(g/cm ³)
Solubility	Soluble in water

10 STABILITY AND REACTIVITY

Stability	Stable at below -20°C
Possible Hazardous Reactions	Nothing particular.
Conditions to Avoid	High temperature, ignition sources, direct sunlight
Material to Avoid	Strong oxidizers and strong reducers
Hazardous Decomposition Product	Not available

11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Not Available
Local Effects	May cause eye and skin irritation.
Toxicological information on the component of this product	

	Poly(oxyethylene) octylphenyl ether	Glycerol
Skin corrosion/Irritation	-	rabbit:500mg/24hr:Mild
Serious eye damage/Eye irritation	rabbit: Moderate irritation (Result of Hazard Assessment Report 2001-42(2002) conducted by Chemical Evaluation and Research Institute in Japan)	rabbit:500mg/24hr:Mild

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12 ECOLOGICAL INFORMATION

	Poly(oxyethylene) octylphenyl ether
Ecotoxicity	
Acute toxicity (LC50)	Algae (Selenastrum)-0.21mg/l-96h (Result of Hazard Assessment Report conducted by Ministry of the Environment and Chemical Evaluation and Research Institute in Japan-2006)
Persistence/Degradability	Not rapidly degradable(28days,BOD 22%)
Bioaccumulative potential	BCF<31,Not bioaccumulative
Mobility in Soil	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
	Follow all of the laws and regulations
Specific Precautions	To prevent packages from breaking, Store at about -20°C

15 REGULATORY INFORMATION

Follow all of the laws and regulations in your country.
Substances of very high concern (SVHC) according to REACH, Article 57.
9002-93-1 Triton X-100

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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