

Safety Data Sheet

SDS: 2356F
First issue: 2022/12/12
Revised: 2023/6/14

Product name : THUNDERBIRD™ Next Probe qPCR Mix

1. Identification of the substance/mixture and of the company/undertaking

Product name: THUNDERBIRD™ Next Probe qPCR Mix
Product Code : QPX-101, 101T
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 : realtime PCR kit (Research reagent)

2. Hazards identification

GHS Classification

<THUNDERBIRD Next Probe qPCR Mix>

Acute toxicity (oral)	No Classification
Acute toxicity (dermal)	No Classification
Skin corrosion/irritation	No Classification
Serious eye damage/eye irritation	No Classification
Specific target organ systemic toxicity	Category 2
Specific target organ systemic toxicity	Category 2
Acute hazards to the aquatic environment	No Classification
Chronic hazards to the aquatic environment	No Classification

Label elements

Hazard pictograms:



Signal word: Warning
Hazard statements: May cause damage to organs (central nerve system, blood systems).
May cause damage to organs (central nerve system, respiratory apparatus) through prolonged or repeated exposure.

Precautionary statements:

【Prevention】 Do not breathe dust/fume/gas/mist/vapours/spray.

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

【Response】 Get medical advice/attention if you feel unwell.

【Storage】 Store locked up.

【Disposal】 Dispose of in accordance with all applicable local and national laws and regulations.



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3. Composition/information on ingredients

Substance/Mixture : Mixture(Aqueous Salution)

Ingredients and Concentration

<THUNDERBIRD Next Probe qPCR Mix>	wt%	CAS#
Tris(Hydroxymethyl)aminomethane	<1	77-86-1
Potassium chloride	<1	7447-40-7
Magnesium chloride	<1	7786-30-3
Deoxyadenosine triphosphate	approx. 0.01	1927-31-7
Deoxycytidine triphosphate	approx. 0.01	102783-51-7
Deoxyguanosine triphosphate	approx. 0.01	93919-41-6
Deoxyuridine triphosphate	approx. 0.01	102814-08-4
Glycerol	approx. 2.5	56-81-5
Polyethylene Glycol Mono-p-isooctylphenyl Ether	0.024	9002-93-1
DNA polymerase	<0.1	(EC 2.7.7.7)
AdditiveA	<5	-
AdditiveB	<5	-
<50×ROX Reference dye>		
ROX	<0.1	-

Substance/Mixture : Mixture(Aqueous Salution)

Ingredients and Concentration

<THUNDERBIRD Next Probe qPCR Mix>

Common Chemical Name (or Generic Name)	Glycerol	Polyethylene Glycol Mono-p-isooctylphenyl Ether	AdditiveA	AdditiveB
Synonyms	Glycerin	Triton X-100, Polyethylene Glycol-p- (1,1,3,3-tetramethylbutyl) phenyl Ether	-	-
Contained Parts:Percentage	2.50%	<0.05%	<5%	<5%
Chemical formula	CH ₂ OHCHOHCH ₂ OH	HO(C ₂ H ₄ O) _n -C ₈ H ₁₇	-	-
CAS No.	56-81-5	9002-93-1	-	-

4 FIRST-AID MEASURES



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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 for several minutes.
Ingestion	Induce vomiting. If indisposition continues, seek medical a

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 an
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	Always keep your handling area tidy and clean.
Safe Handling Advice	Good laboratory technique should be used when handling this product.

STORAGE

Storage Conditions	Store at about -20°C Store in the original package
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8. Exposure controls/personal protection

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

Product

Physical state:	Liquid. Freezes at -20°C
Color:	None
Odor:	None
Odor Threshold Values. :	No data
Melting point/freezing point:	No data
Initial boiling point and boiling range:	No data
Flash point:	Not flammable due to aqueous solution, but AdditiveA whose flash point 99°C may stay behind after volatilization. Glycerol whose flash point 160°C may also stay behind after volatilization.
Flammability (solid, gas):	No data
Upper/lower flammability or explosive limits:	Not explosive at room temperature.
Auto-ignition temperature:	No data
Decomposition	No data
pH :	7.0~9.0
Kinematic viscosity:	No data
Solubility:	Soluble in water
Partition coefficient: n-octanol/water:	No data
Vapour pressure:	No data
Specific Gravity:	No data
Vapour density:	No data



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Particle characteristics: No data

10 STABILITY AND REACTIVITY

Stability	Stable at -20°C or below
Possible Hazardous Reactions	None
Conditions to Avoid	Strong heat
Material to Avoid	Direct sunlight, strong oxidizers and strong reducers
Hazardous Decomposition Product	Not available

11 TOXICOLOGICAL INFORMATION

<THUNDERBIRD Next Probe qPCR Mix>

Acute toxicity (oral):	No Classification
Acute toxicity (dermal):	No Classification
Acute toxicity (inhalation):	Exempt classification (Gas)
	Exempt classification (Vapour)
	Exempt classification (Dust/Mist)
Skin corrosion/irritation:	No Classification
Serious eye damage/irritation:	No Classification
Respiratory sensitization:	Classification not possible
Skin sensitization:	Classification not possible
Mutagenicity:	Classification not possible
Carcinogenicity:	Classification not possible
Reproductive toxicity:	Classification not possible
Target organ effect/Single exposure:	Category 2(central nerve system,blood systems)
Target organ effect/Multi exposure:	Category 2(central nerve system,respiratory apparatus)
Respiratory toxic:	Classification not possible

Ingredient
AdditiveA

Target organ effect/Single exposure:	Category 1(central nerve system,blood systems)
Target organ effect/Multi exposure:	Category 1(central nerve system,respiratory apparatus)

AdditiveB

Skin corrosion/irritation:	Category2
Serious eye damage/irritation:	Category2A

Glycerol



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Serious eye damage/irritation:	Category2B
Poly(oxyethylene) Nonylphenylether	
Serious eye damage/irritation:	Category2A
<50×ROX Reference dye>	
Acute toxicity (oral):	No Classification
Acute toxicity (dermal):	No Classification
Acute toxicity (inhalation):	Exempt classification (Gas)
	Exempt classification (Vapour)
	Exempt classification (Dust/Mist)
Skin corrosion/irritation:	No Classification
Serious eye damage/irritation:	No Classification
Respiratory sensitization:	Classification not possible
Skin sensitization:	Classification not possible
Mutagenicity:	Classification not possible
Carcinogenicity:	Classification not possible
Reproductive toxicity:	Classification not possible
Target organ effect/Single exposure:	Classification not possible
Target organ effect/Multi exposure:	Classification not possible
Respiratory toxic:	Classification not possible

12 ECOLOGICAL INFORMATION

Product

Ecotoxicity	
Acute toxicity:	No Classification
Chronic toxicity:	No Classification
Persistence and degradability :	Poly(oxyethylene)Nonylphenylether a isn't biodegradable. Enzyme, protein, nucleotide and glycerol are biodegradable.
Bioaccumulative potential :	No information.
Mobility in soil:	No information.
Hazardous to the ozone layer:	Classification not possible
Other impact :	No information.

13 DISPOSAL CONSIDERATIONS

Waste from Residues	Dispose of in accordance with all applicable local and national laws and regulations.
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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 INFORMATIONRegulations, Evaluation,
Authorization and

Common Chemical name

Concentration or concentration ra ca. 0.5% (W/W)

Chemical fomula

CAS#

Regulations

The following ingredients are included in SVHC(Candidate list of authorization)

Polyethylene Glycol Mono-p-isooctylphenyl Ether(Triton X-

ca. 0.5% (W/W)

 $\text{HO}(\text{C}_2\text{H}_4\text{O})_n\text{-C}_6\text{H}_4\text{-C}_8\text{H}_{17}$

9002-93-1

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.