



Safety Data Sheet

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

1.1 Product identifier

Product name : TOROIVD® 5G Reaction Mix

Product Code: TS-2500

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use and restrictions on use: Realtime PCR kit

1.3 Detail of the supplier of the safety data sheet

Company: TOROIVD TECHNOLOGY COMPANY LIMITED.

Address: Building # 10, 588 Tianxiong Road, Shanghai International Medical Zone, Pudong, Shanghai, China. 201318

Tel/Fax: +86-21-68030217

1.4 Emergency telephone number

+86-21-68030217 (9:00~ 17:00 Beijing Time)

SECTION 2 Hazards identification

2.1 Classification of substance or mixture

Not classified or classification not possible

2.2 Label elements

No label elements are required.

2.3 Other hazards

Few adverse human health effects are anticipated. Glycerol whose flash point 160°C and Additive1-2 whose flash point 131°C are contained.

SECTION 3 Composition / information on Ingredients

3.1 Chemical Product

Substance or Mixture : Mixture

3.2 Mixture

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

Harzadous components :

Common Chemical :	Glycerol	Potassium chloride
Synonyms:	Glycerin	KCl
CAS No.:	56-81-5	7447-40-7
EC No. :	200-289-5	231-211-8
Classification :	Not classified	Not classified
Concentration :	10-15%	<10%
Common Chemical :	Additive1	
Synonyms:	-	
CAS No.:	-	
Classification :	Not classified	
Concentration :	15-20%	

SECTION 4 First aid measures

4.1 Description of first aid measures

Inhalation : In case of irritation by inhaling this product, remove person to fresh air and keep comfortable for



breathing. Seek medical attention.

Skin Contact : Wash with clean water, immediately.

Take off contaminated clothing and wash before reuse.

If skin irritation or rash occurs: Get medical advice/ attention.

Eye Contact Ingestion: Rinse cautiously with water for several minutes.

Rinse mouth. Induce vomiting.

If indisposition continues, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5 Firefighting measures

5.1 Extinguishing media

Water, Carbon Dioxide, Foam, Dry Chemical Powder

5.2 Special hazard s arising from the sub stance or mixture

Exposure to decomposition products may be a hazard to health. Toxic gas (carbon monoxide, nitrogen oxides) and fumes maybe generated.

5.3 Advice for firefighters

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.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment and avoid eye/skin contact and inhalation.

6.2 Environmental precautions

Avoid disposition to the environment.

6.3 Method s and material for containment and cleaning up

Use cloth, paper, or anything similar to soak up to the solution leaking out of the container.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7 Handling and storage

7.1 Precautions for safe handling

Technical Measures : Avoid substance contact. Wear protective equipment and avoid contact with eyes and skin.

Handle with ventilation and local

Precautions: Keep the handling area always clean.

Hygiene measures: Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions: Store at about -20°C

Packaging Materials : Store in the original package

7.3 Specific end uses (s)

Laboratory chemicals

SECTION 8 Exposure controls/ personal protection

8. 1 Control Parameter

Occupational Exposure Limits

Glycerol

JSOH OEL: Not Established



OSHA PEL: Total dust: 15mg/m³TWA; Respirable fr.: 5mg/m³TWA
DFG MAK : Inhalable fraction: 200 mg/m³; Peak limitation category: I(2)

8.2 Exposure controls

Appropriate engineering controls

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

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.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State: Liquid

Colour: Colourless

Odour: None

pH: 7.0-9.0

Flash Point: No flammability due to aqueous solution, but glycerol whose flash point 160°C and Additive1 -2 whose flash point 131°C may stay behind after volatilization.

Density : 1.0- 1.3(g/cm³)

Solubility : Soluble in water.

9.2 Other data

None

SECTION 10 Stability and reactivity

10.1 Reactivity

No hazardous reaction if stored and applied as directed.

10.2 Chemical stability

Stable at -20±5°C.

10.3 Possibility of hazardous reactions

Nothing particular

10.4 Conditions to avoid

High temperature, ignition sources

10.5 Incompatible materials

Strong acids, strong alkalines and strong oxidizers

10.6 Hazardous decomposition products

Not available

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Acute Toxicity : Not available

Skin corrosion: May cause mild skin irritation.

Serious eye damage/irritation: May cause eye irritation.

Toxicological information on the component of this product

Glycerol

KCl

Oral-rat: LD50 12.6g/kg

Acute toxicity : Dermal-rabbit: LD50 > 10g/kg

Oral-rat: LD50 2.6g/kg



Inhalation-rat: LC50>570mg/m3 (1hr)

Skin corrosion:	----	Irritating to skin.
Eye damage/ irritation :	Irritating to eyes. Additive1	Irritating to eyes.
Skin corrosion:	May cause irritate skin.	
Eye damage/ irritation :	May cause irritate to eyes.	

SECTION 12 Ecological information

12.1 Toxicity

Glycerol	KCl
Oral-rat: LD50 12.6g/kg	
Acute toxicity :	Dermal-rabbit: LD50 > 10g/kg
	Oral-rat: LD50 2.6g/kg
	Inhalation-rat: LC50>570mg/m3 (1hr)
Skin corrosion:	-----
Eye damage/ irritation :	Irritating to eyes.

12.2 Persistence and degradability

Glycerol, enzyme, antibody, and deoxynucleotide are biodegradable.

12.3 Bioaccumulative potential

Glycerol, enzyme, antibody, and deoxynucleotide are not bioaccumulative.

12.4 Mobility in soil

Soluble in water and diffusible into water environment.

12.5 Results of PBT and vPvB assessment

None

SECTION 13 Disposal considerations

13.1 Waste treatment methods

Product : 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.

SECTION 14 Transport information

14.1 UN number

No

14.2 UN proper shipping name

No

14.3 Transport hazard class(es)

No

14.4 Packing group

No

14.5 Environmental hazards

Not classified as environmental hazards.

14.6 Special precautions for user

To prevent packages from breaking, handle with care.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15 Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals



Not applicable

REACH - Authorization List of Substances of Very High Concern for Authorisation

Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer

Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants

Not applicable

Seveso III: Directive 2012/ 18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Not applicable

15.2 Chemical Safety Assessment

No data available

Follow all of the laws and regulations in your respective country.

SECTION 16 Other information

Full text of H -

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H302: Harmful if swallowed.

H335: May cause respiratory irritation.

H411: Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Skin Irrit. : Skin irritation

Eye Irrit. : Eye irritation

Acute Tox.: Acute toxicity

Notice

STOT SE: Specific target organ toxicity - single exposure Aquatic Chronic: Chronic aquatic toxicity

The information in this SDS, to the best of our knowledge, is accurate and correct. However, TOROIVD 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.