



# SAFETY DATA SHEET

Issue date 8 April 2022

Version 1

## 1. IDENTIFICATION

<b>Product name</b>	10x RT-LAMP Reaction Buffer
<b>Product No</b>	RB40
<b>Recommended use</b>	Nucleic acid amplification
<b>Supplier Address</b>	DNA Polymerase Technology Inc. 1508 South Grand Blvd. Saint Louis MO 63014 USA
<b>Phone Number</b>	314 771 5566
<b>Fax</b>	314 771 5581
<b>E-mail address</b>	enzyme@klentaq.com
<b>Emergency Phone</b>	512 289 6324

## 2. HAZARDS IDENTIFICATION

**Classification** Not a hazardous substance or mixture

**GHS Label elements** Not a hazardous substance or mixture

### Hazard Statement

The product contains no substances which at their given concentration, are known to be hazardous to health.

**Hazards not otherwise classified (HNOC)** None

### 3.COMPOSITION/INFORMATION ON INGREDIENTS

#### Mixture

Ingredient	% by weight	CAS #
Tris HCl $\text{NH}_2\text{C}(\text{CH}_2\text{OH})_3 \cdot \text{HCl}$ Tris(hydroxymethyl)aminomethane hydrochloride	6.1	1185-53-1
Ammonium sulfate $(\text{NH}_4)_2\text{SO}_4$	0.7	7783-20-2
Brij® 58 $\text{HO}(\text{CH}_2\text{CH}_2\text{O})_{20}\text{C}_{16}\text{H}_{33}$ Polyethylene glycol hexadecyl ether	<1	9004-95-9
Magnesium Chloride $\text{MgCl}_2$	<1	7786-30-3

### 4.FIRST AID MEASURES

#### First Aid Instructions

<b>Inhalation</b>	Remove to fresh air.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Eye contact</b>	Flush eyes with water.
<b>Ingestion</b>	Rinse mouth with water.

**Most important symptoms and effects, both acute and delayed** No information available.

**Recommendations for medical care** Treat symptomatically.

### 5.FIRE-FIGHTING MEASURES

#### Suitable extinguishing equipment

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide, as indicated by local circumstances and the surrounding environment.

#### Specific hazards arising from the chemical

No information available.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

## 6.ACCIDENTAL RELEASE MEASURES

### Personal precautions and emergency procedures

Use of standard laborator Personal Protective Equipment (PPE) such as a lab coat, gloves, and safety glasses is recommended. No evacuation, expert consultation, or additional PPE is required for dealing with accidental release.

### Environmental precautions

Do not flush this product down the drain.

### Containment and cleanup

Absorb with inert absorbent material and dispose with dry waste.

## 7.HANDLING AND STORAGE

Precautions for safe handling Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage

Storage temperature	-20° F
Storage Conditions	Store in original containers with lids closed.
Incompatible materials	unknown

## 8.EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

This product contains no components with exposure limits (OSHA PELs or ACGIH TLVs)

### Engineering controls

Standard lab safety components such as showers, eyewash stations, and standard ventilation systems are recommended.

### Personal protection measures

Use of standard laboratory Personal Protective Equipment (PPE) such as a lab coat, gloves, and safety glasses is recommended. Keep laboratory well ventilated. Handle product in accordance with good industrial hygiene and safety practice.

## 9.PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Appearance	colorless/cloudy
Odor	none/mild
Vapor pressure	No information available
pH	8.55
Relative density	No information available
Melting point / freezing point	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Boiling point / boiling range	No information available
Flash point	No information available
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Partition coefficient	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity** No data available.

**Chemical stability** Stable under recommended storage conditions.

**Other** **Possibility of hazardous reactions**

No hazardous reactions are known or expected. The product is not known to react or polymerize resulting in excess pressure, heat, or any other hazardous conditions.

**Conditions to avoid**

None

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

None are known or expected.

## 11. TOXICOLOGICAL INFORMATION

### Likely routes of exposure

**Inhalation** Avoid breathing vapors or mists. May cause irritation of respiratory tract.

**Ingestion** Avoid ingestion.

**Skin contact** Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.

**Eye contact** Avoid eye contact. May cause redness and irritation.

**Delayed, immediate, or chronic effects from short and long-term exposure** None are known or expected.

### Numerical measures of toxicity

Ingredient	% by weight	CAS #	LD50
Tris HCl NH <sub>2</sub> C(CH <sub>2</sub> OH) <sub>3</sub> · HCl Tris(hydroxymethyl)aminomethane hydrochloride	6.10%	77-86-1	Oral (rat) >5,000 mg/kg Dermal (rat) >5,000 mg/kg
Ammonium sulfate (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	0.7	7783-20-2	Oral (rat) 4,250 mg/kg Dermal (rat) 2,000 mg/kg
Brij® 58 HO(CH <sub>2</sub> CH <sub>2</sub> O) <sub>20</sub> C <sub>16</sub> H <sub>33</sub> Polyethylene glycol hexadecyl ether	<1	9004-95-9	Oral (rat) 2,500 mg/kg
Magnesium Chloride MgCl <sub>2</sub>	<1	7786-30-3	Oral (rat) >5,000 mg/kg Dermal (rat) >2,000 mg/kg

**Symptoms of exposure** No information available.

### Potential carcinogen status

**NTP Report on Carcinogens**

Not a known or anticipated carcinogen

**IARC Monographs**

Not a probable, possible, or confirmed carcinogen

**OSHA**

Not listed

## 12.ECOLOGICAL INFORMATION

### Ecotoxicity

**Marine pollutant:** Components of this product known to be toxic to fish, aquatic invertebrates, algae, and/or bacteria are listed below.

Ingredient	Organism	Toxicity Data
Ammonium sulfate (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> CAS 7783-20-2	Fish	LC50 (rainbow trout) 53 mg/L at 96 hours
	Aquatic invertebrates	EC50 (water flea) 121.7 mg/L at 48 hours
	Algae	ErC50 (fresh water algae) 2,700 mg/L at 18 days
	Bacteria	EC50 (activated sludge) 1,618 mg/L at 30 minutes

### Persistence and degradability

No information available

### Bioaccumulation

No information available

### Mobility from soil to groundwater

No information available

### Other adverse effects

No information available

## 13.DISPOSAL CONSIDERATIONS

### Disposal guidelines

Dispose with dry waste, do not flush down drains. Refer to Section 8 for PPE recommendations.

## 14.TRANSPORT INFORMATION

DOT

Not regulated

## 15.REGULATORY INFORMATION

### US Federal Regulations

#### SARA 313

The following product components are subject to reporting requirements:

Chemical Name	CAS #	SARA 313 Threshold Value	Concentration in this product
Ammonium sulfate	7783-20-2	1.00%	0.70%

## US State Regulations

**California Proposition 65** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### Massachusetts Right To Know Components

Ammonium sulphate CAS-No. 7783-20-2

### Pennsylvania Right To Know Components

Polyethylene glycol hexadecyl ether CAS-No. 9004-95-9

Ammonium sulphate CAS-No. 7783-20-2

Magnesium chloride CAS-No. 7786-30-3

### New Jersey Right To Know Components

Polyethylene glycol hexadecyl ether CAS-No. 9004-95-9

Ammonium sulphate CAS-No. 7783-20-2

Magnesium chloride CAS-No. 7786-30-3

## 16.OTHER INFORMATION

This document was prepared on 8April2022

### Disclaimer

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**End of Safety  
Data Sheet**