



# 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>	milko@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 NH <sub>2</sub> C(CH <sub>2</sub> OH) <sub>3</sub> · HCl Tris(hydroxymethyl)aminomethane hydrochloride	6.1	1185-53-1
Ammonium sulfate (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	0.7	7783-20-2
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
Magnesium Chloride MgCl <sub>2</sub>	<1	7786-30-3

### 4.FIRST AID MEASURES

#### First Aid Instructions

- Inhalation** Remove to fresh air.
- Skin contact** Wash skin with soap and water.
- Eye contact** Flush eyes with water.
- Ingestion** 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**

<b>Storage temperature</b>	-20° F
<b>Storage Conditions</b>	Store in original containers with lids closed.
<b>Incompatible materials</b>	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**

<b>Physical state</b>	liquid
<b>Appearance</b>	colorless/cloudy
<b>Odor</b>	none/mild
<b>Vapor pressure</b>	No information available
<b>pH</b>	8.55
<b>Relative density</b>	No information available
<b>Melting point / freezing point</b>	No information available
<b>Water solubility</b>	No information available
<b>Solubility in other solvents</b>	No information available
<b>Boiling point / boiling range</b>	No information available
<b>Flash point</b>	No information available
<b>Evaporation rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Auto-ignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity</b>	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 $\text{NH}_2\text{C}(\text{CH}_2\text{OH})_3 \cdot \text{HCl}$ Tris(hydroxymethyl)aminomethane hydrochloride	6.10%	77-86-1	Oral (rat) >5,000 mg/kg Dermal (rat) >5,000 mg/kg
Ammonium sulfate $(\text{NH}_4)_2\text{SO}_4$	0.7	7783-20-2	Oral (rat) 4,250 mg/kg Dermal (rat) 2,000 mg/kg
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	Oral (rat) 2,500 mg/kg
Magnesium Chloride $\text{MgCl}_2$	<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

<b>NTP Report on Carcinogens</b>	Not a known or anticipated carcinogen
<b>IARC Monographs</b>	Not a probable, possible, or confirmed carcinogen
<b>OSHA</b>	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

**IMPORTANT:** The information in this SDS is provided in good faith based on our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties or merchantability or fitness for a particular purpose. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable governmental requirements. Since conditions of use of the product are not under the control of DNA Polymerase Technology, it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. DNA Polymerase Technology will not be liable for any damages resulting from handling or contact with the product.

**End of Safety  
Data Sheet**