SAFETY DATA SHEET

Issue date **3** July2020 **Version** 1

1.IDENTIFICATION

Product name	10x Klentaq1 Reaction Buffer pH 7.9
Product No	RB21
Recommended use	Nucleic acid amplification
Supplier Address	DNA Polymerase Technology Inc. 1508 South Grand Blvd. Saint Louis MO 63014 USA
Phone Number	314 771 5566
Fax	314 771 5581
E-mail address	enzyme@klentaq.com
Emergency Phone	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 $NH_2C(CH_2OH)_3 \cdot HCl$ Tris(hydroxymethyl)aminomethane hydrochloride	6.1	1185-53-1
Ammonium sulfate $(NH_4)_2SO_4$	1.4	7783-20-2
Brij® 58 $HO(CH_2CH_2O)_{20}C_{16}H_{33}$ Polyethylene glycol hexadecyl ether	<1	9004-95-9
Magnesium Chloride $MgCl_2$	<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 laboratory 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	7.9
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 $NH_2C(CH_2OH)_3 \cdot HCl$ Tris(hydroxymethyl)aminomethane hydrochloride	6.1	1185-53-1	Oral (rat) >5,000 mg/kg Dermal (rat) >5,000 mg/kg
Ammonium sulfate $(NH_4)_2SO_4$	1.4	7783-20-2	Oral (rat) 4,250 mg/kg Dermal (rat) 2,000 mg/kg
Brij® 58 $HO(CH_2CH_2O)_{20}C_{16}H_{33}$ Polyethylene glycol hexadecyl ether	<1	9004-95-9	Oral (rat) 2,500 mg/kg
Magnesium Chloride $MgCl_2$	<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

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 $(NH_4)_2SO_4$ 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%	1.40%

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 3July2020

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.