



SAFETY DATA SHEET

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

Identification of the substance/preparation

Product code 4388660
Product name 2X Multiplex RT-PCR Buffer

Company/Undertaking Identification

Life Technologies
5791 VAN ALLEN WAY
PO BOX 6482
CARLSBAD, CA 92008
+1 760 603 7200

INVITROGEN CORPORATION
5250 MAINWAY DRIVE
BURLINGTON, ONT
CANADA L7L 6A4
800/263-6236

24 hour Emergency Response (Transport): 866-536-0631
301-431-8585
Outside of the U.S. +1-301-431-8585

For research use only Not intended for human or animal diagnostic or therapeutic uses

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GHS - Classification**Signal Word**

not hazardous

Health Hazard

not hazardous

Physical Hazards

not hazardous

Principle Routes of Exposure/**Potential Health effects****Eyes**

May cause eye irritation with susceptible persons.

Skin

May cause skin irritation in susceptible persons.

Inhalation

May be harmful by inhalation.

Ingestion

May be harmful if swallowed.

Specific effects**carcinogenic effects**

none.

mutagenic effects

none.

Reproductive toxicity

none.

Sensitization

none

**Aggravated Medical
Conditions**

No known effects under normal use conditions

HMIS

Health	0
Flammability	0
Reactivity	0

3. Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
Glycerol	56-81-5	200-289-5	10-30

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

4. First aid measures

Skin contact	Rinse with plenty of water. If symptoms arise, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Ingestion	Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
Inhalation	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
Notes to physician	Treat symptomatically

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Carbon dioxide (CO ₂). Foam. Dry chemical.
Special protective equipment for firefighters	Wear self-contained breathing apparatus and protective suit

6. Accidental release measures

Personal precautions	Use personal protective equipment
Methods for cleaning up	Soak up with inert absorbent material

Environmental precautions

Prevent further leakage or spillage if safe to do so

See Section 12 for additional information.

7. Handling and storage

Handling	Always wear recommended Personal Protective Equipment. No special handling advice required.
Storage	Keep in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Exposure limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Glycerol	15 mg/m ³ total 5 mg/m ³	-	10 mg/m ³	-

Engineering measures

Ensure adequate ventilation, especially in confined areas

Personal protective equipment**Respiratory protection**

In case of insufficient ventilation wear suitable respiratory equipment

Hand protection

Impervious gloves

Eye protection

Safety glasses with side-shields

Skin and body protection

Lightweight protective clothing

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

Prevent product from entering drains

9. Physical and chemical properties**General Information****Form**

liquid

Appearance

No information available

Odor

No information available

Boiling Point/Range

°C no data available

°F no data available

Melting point/range

°C no data available

°F no data available

Flash point

°C no data available

°F no data available

Autoignition temperature

°C no data available

°F no data available

Oxidizing properties

No information available

Water solubility

soluble

10. Stability and reactivity**Stability**

Stable under normal conditions.

Materials to avoid

No dangerous reaction known under conditions of normal use.

Hazardous decomposition products

None under normal use.

polymerization

Hazardous polymerisation does not occur.

11. Toxicological information**Acute toxicity****Acute toxicity**

not hazardous.

Chemical Name	LD50 (oral,rat/mouse)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat/mouse)
Glycerol	= 12600 mg/kg Oral	no data available	no data available

**Principle Routes of Exposure/
Potential Health effects****Eyes**

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Skin

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May be harmful by inhalation.

Ingestion

May be harmful if swallowed.

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carcinogenic effects	none.
mutagenic effects	none.
Reproductive toxicity	none.
Sensitization	none.
Aggravated Medical Conditions	No known effects under normal use conditions.

12. Ecological information

Ecotoxicity effects	No information available
Mobility	No information available
Biodegradation	Inherently biodegradable.
Bioaccumulation	Does not bioaccumulate.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Glycerol 56-81-5		Daphnia magna EC50>500 mg/L (24 h)			logPow-1.76

13. Disposal considerations

Dispose of in accordance with local regulations

14. Transport information

IATA	
Proper shipping name	Not classified as dangerous in the meaning of transport regulations
Hazard class	none
Subsidiary Class	none
Packing group	none
UN-No	None

15. Regulatory information

Component	TSCA
Glycerol 56-81-5 (10-30)	Listed

U.S. Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contains HAPs.

U.S. State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
Glycerol	Listed	-	Listed	-	Listed

California Proposition 65

This product does not contain chemicals listed under Proposition 65

WHMIS hazard class:

Non-controlled

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

16. Other information

Reason for Revision (M)SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

End of Safety Data Sheet

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