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## MATERIAL SAFETY DATA SHEET

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Msds Revision Date: 1/09

**Buffer  
#B0326**

### SECTION 1—CHEMICAL INFORMATION

<b>Product Name:</b> Crimson LongAmp Taq Reaction Buffer Pack	SARA 313	NO
1. Glycerol 3 %	Cas. #56-81-5	NO
2. Tween-20 < 1%	Cas. #9005-64-5	NO
3. NP-40 < 1%	Cas. #127087-87-0	NO
4. Tris-SO <sub>4</sub> < 1%	Cas. #77-86-1	NO
5. Magnesium Sulfate < 1%	Cas. #7487-89-9	NO
6. Ammonium Sulfate < 1%	Cas. #7783-20-2	NO
7. Acid Red < 1%	Cas. #5858-33-3	NO

### SECTION 2—COMPOSITION/ INFORMATION ON INGREDIENT

**CHEMICAL NAME:** GLYCEROL

**MF:** C3H8O3

**EC No:** 200-289-5

**SYNONYMS:** CITIFLOUR AF 2 \* GLYCERIN \* GLYCERIN, ANHYDROUS \* GLYCERINE \* GLYCERIN MIST (ACGIH, OSHA) \* GLYCERIN, SYNTHETIC \* GLYCERITOL GLYCYL ALCOHOL \* CLYZERIN, WASSERFREI (GERMAN) \* GROCOLENE \* OSMOGLYN \* 1,2,3-PROPANE-TRIOL \* STAR \* SYNTHETIC GLYCERIN \* TECHNICAL GLYCERINE \* TRIHYDROXYPROPANE \* 1,2,3-TRIHYDROXYPROPANE.

### SECTION 3—HAZARDOUS IDENTIFICATION

#### EMERGENCY OVERVIEW

Caution: Avoid contact and inhalation.

#### HMIS RATING

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

#### NFPA RATING

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

### SECTION 4—FIRST AID MEASURES

**ORAL EXPOSURE:** If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**INHALATION EXPOSURE:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**DERMAL EXPOSURE:** In case of contact, immediately wash skin with soap and copious amounts of water. Remove clothing and call a physician.

**EYE EXPOSURE:** In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

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## SECTION 5–FIRE FIGHTING MEASURES

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**Extinguishing Media:** Water Spray, Carbon Dioxide, Dry Chemical powder or appropriate foam. Suitable: Use extinguishing media appropriate to surrounding fire conditions.

**Unusual Fire and Explosions Hazard (s):** Emits toxic toxic fumes under fire conditions.

**Special Firefighting Procedures:** Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Prevent contact with skin and eyes.

**Flash Point:** N/A

**Autoignition Temp:** N/A

**Flammability:** N/A

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## SECTION 6 – ACCIDENTAL RELEASE MEASURES

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### PROCEDURE(S) OF PERSONAL PRECAUTION(S):

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors

Wear disposable coveralls and discard them after use.

### METHODS FOR CLEANING UP:

Absorb on sand or vermiculite and place in a closed container for disposal.

Ventilate area and wash spill site after material pickup is complete.

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## SECTION 7 – HANDLING AND STORAGE

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**HANDLING:** User Exposure: Avoid contact with eyes, skin, and clothing. Avoid inhalation. Avoid prolonged or repeated exposure.

**STORAGE:** Suitable: Keep tightly closed. Store at -20°C

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## SECTION 8–EXPOSURE CONTROLS /PPE

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**Engineering Controls:** Safety shower and eye bath. Mechanical exhaust required.

### Personal Protective Equipment:

#### Respiratory

NIOSH/MSHA-approved respirator.

#### Hand:

Compatible chemical-resistant gloves.

#### Eye:

Compatible safety goggles.

### General Hygiene Measures:

Wash thoroughly after handling.

Wash contaminated clothing before use.

### AVOID INHALATION

Keep Tightly Closed

Store in a cool dry place.

Freeze. Store at -20°C

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## SECTION 9– PHYSICAL AND CHEMICAL PROPERTIES

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### Physical Properties:

**Melting Point:** 20° C

**Boiling Point:** 182° C

**Flash Point:** > 392 F, > 200° C

### Explosion Limits in Air:

**Lower:** 0.9%

**Specific Gravity:** 1.262

**Solubility:** Water -Z26130

**Vapor Pressure:** < 1 MMHG @ 20°C

**Vapor Density:** 3.1 G/L

**PH:** 5.5–8.0

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## SECTION 10 – STABILITY AND REACTIVITY

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**Stability:** Stable

### Materials to Avoid:

Strong oxidizing agents, strong bases.

### Hazardous Decomposition Products:

Carbon Monoxide, Carbon Dioxide

**Hazardous Polymerization:** Will not occur.

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**PROTECT FROM HEAT AND MOISTURE**

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## SECTION 11–TOXICOLOGICAL INFORMATION

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### Route of Exposure:

#### Skin Contact

May cause skin irritation

Materials may be irritating to mucous membranes and upper respiratory tract.

**Signs and Symptoms of Exposure:** Prolonged exposure can cause:

Nausea, headache and vomiting

To the best of our knowledge, the properties have not yet been thoroughly investigated.

#### Eye Contact:

May cause eye irritation

### Multiple Routes

May be harmful by inhalation, ingestion, or skin absorption

**Chronic Effects:** Target Organs, Kidney

**RTECS #:**MA8050000

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### IRRITATION DATA:

**SKN-RBT 500** MG/24H MLD

**EYE-RBT 126** MG MLD

**EYE-RBT 500** MG/24H MLD

85JCAE -, 207, 1986

BIOFX\* 9-4/970

85JCAE -, 207, 1986

**TOXICITY DATA:**

<b>ORL-RAT</b>	<b>LD50:</b> 12600	MG/KG	FEFRA7 4, 142, 1945
<b>IHL-RAT</b>	<b>LC50:</b> > 570	MG/M3/1H	BIOFX* 9-4/970
<b>IPR-RAT</b>	<b>LD50:</b> 4420	MG/KG	RCOCB8 56, 125, 1987
<b>SCU-RAT</b>	<b>LD50:</b> 100	MG/KG	NIIRDN 6, 215, 1982
<b>IVN-RAT</b>	<b>LD50:</b> 5566	MG/KG	ARZNAD 26,1581,1976
<b>ORL-MUS</b>	<b>LD50:</b> 4090	MG/KG	FRZKAP (6), 56, 1977
<b>IPR-MUS</b>	<b>LD50:</b> 8700	MG/KG	ARZNAD 28,1579,1978
<b>SCU-MUS</b>	<b>LD50:</b> 91	MG/KG	NIIRDN 6, 215, 1982
<b>IVN-MUS</b>	<b>LD50:</b> 4250	MG/KG	JAPMA8 39, 583, 1950
<b>ORL-RBT</b>	<b>LD50:</b> 27	GM/KG	DMDJAP 31, 276,1959
<b>SKN-RBT</b>	<b>LD50:</b> >10	GM/KG	BIOFX* 9-4/970
<b>IVN-RBT</b>	<b>LD50:</b> 53	GM/KG	NIIRDN 6, 215, 1982
<b>ORL-GPG</b>	<b>LD50:</b> 7750	MG/KG	JIHTAB 23, 259, 1941

**TARGET ORGAN DATA:**

Behavioral (headache)	Paternal effects (testes, epididymis, sperm duct)
Gastrointestinal (nausea or vomiting)	Effects on fertility (male fertility index)
Kidney, ureter, bladder (changes in tubules)	Effects on fertility (post-implantation mortality)
Kidney, ureter, bladder (changes in urine composition)	Only selected registry of toxic effects of chemical substance
Paternal effects (spermatogenesis)	(RTECS) data is presented here. See actual entry in RTECS

**SECTION 12—ECOLOGICAL INFORMATION**

Data not yet available

**SECTION 13—DISPOSAL CONSIDERATIONS**

Contact a licensed professional waste disposal service to dispose of this material.  
Observe all federal state and local environmental regulations.  
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**SECTION 14—TRANSPORT INFORMATION****DOT**

Proper Shipping Name: None

**Non-hazardous for transport**

This substance is considered to be non-hazardous for transport

**IATA**

Non-Hazardous for Air Transport: Non-hazardous for air transport.

**SECTION 15—REGULATORY INFORMATION****US CLASSIFICATION AND LABEL TEXT**

US Statements: Caution: Avoid contact and inhalation.

**UNITED STATES REGULATORY INFORMATION**

SARA LISTED: No

**CANADA REGULATORY INFORMATION**

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

**SECTION 16—REGULATORY INFORMATION**

**DISCLAIMER:** For R&D use only. Not for drug, household or other uses.

**WARRANTY:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. New England Biolabs, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

**SECTION 17—OTHER INFORMATION**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

New England Biolabs shall not be held liable for any damage resulting from handling or from contact with the above product.