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MATERIAL SAFETY DATA SHEET

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Buffer #B0323

SECTION 1-CHEMICAL INFORMATION

oduct Name: LongAmp laq R	eaction Buffer F	Pack	SARA 313	NO
Glycerol	3 %	Cas.	#56-81-5	NO
Tween-20	< 1%	Cas.	#9005-64-5	NO
NP-40	< 1%	Cas.	#127087-87-0	NO
Tris-S0 ₄	< 1%	Cas.	#77-86-1	NO
Magnesium Sulfate	< 1%	Cas.	#7487-89-9	NO
Ammonium Sulfate	< 1%	Cas.	#7783-20-2	NO
	Glycerol Tween-20 NP-40 Tris-S0 ₄ Magnesium Sulfate	Glycerol 3 % Tween-20 < 1% NP-40 < 1% Tris-S0 ₄ < 1% Magnesium Sulfate < 1%	Tween-20 < 1%	Glycerol 3 % Cas. #56-81-5 Tween-20 <1% Cas. #9005-64-5 NP-40 <1% Cas. #127087-87-0 Tris-S0 ₄ <1% Cas. #77-86-1 Magnesium Sulfate <1% Cas. #7487-89-9

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

CHEMICAL NAME: GLYCEROL MF: C3H803 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
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.

SECTION 5-FIRE FIGHTING MEASURES

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

SECTION 6 – ACCIDENTAL RELEASE MEASURES

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.

SECTION 7 – HANDLING AND STORAGE

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

SECTION 8-EXPOSURE CONTROLS /PPE

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.

Vapor Density: 3.1 G/L

AVOID INHALATION

Keep Tightly Closed Store in a cool dry place. Freeze. Store at -20°C

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Physical Properties:

Melting Point: 20° C Boiling Point: 182° C

Flash Point: > 392 F, > 200° C

Explosion Limits in Air:

Lower: 0.9% Vapor Dens
Specific Crouthy 1.262 PH: 5.5–8.0

Specific Gravity: 1.262 Solubility: Water -Z26130

Vapor Pressure: < 1 MMHG @ 20°C

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid:

Strong oxidizing agents, strong bases.

PROTECT FROM HEAT AND MOISTURE

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization: Will not occur.

Chronic Effects: Target Organs, Kidney

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure:

Skin Contact Eye Contact: Multiple Routes

May cause skin irritation May cause eye irritation May be harmful by inhalation, ingestion, or skin absorption

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

Signs and Symptoms of Exposure: Prolonged exposure can cause: RTECS #:MA8050000

Nausea, headache and vomiting

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

IRRITATION DATA:

SKN-RBT 500 MG/24H MLD **EYE-RBT 126** MG MLD **EYE-RBT 500** MG/24H MLD

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TOXICITY DATA:

ORL-RAT LD50: 12600 MG/KG IHL-RAT LC50: > 570 MG/M3/1H IPR-RAT **LD50**: 4420 MG/KG **SCU-RAT LD50**: 100 MG/KG LD50: 5566 IVN-RAT MG/KG **ORL-MUS LD50**: 4090 MG/KG **IPR-MUS LD50**: 8700 MG/KG SCU-MUS LD5O: 91 MG/KG **LD50**: 4250 IVN-MUS MG/KG **ORL-RBT LD50**: 27 GM/KG **SKN-RBT LD50**: >10 GM/KG **IVN-RBT LD50**: 53 GM/KG **ORL-GPG LD50**: 7750 MG/KG

FEPRA7 4, 142, 1945 BIOFX* 9-4/970 RCOCB8 56, 125,1987 NIIRDN 6, 215, 1982 ARZNAD 26,1581,1976 FRZKAP (6), 56, 1977 ARZNAD 28,1579,1978 NIIRDN 6, 215, 1982 JAPMA8 39, 583, 1950 DMDJAP 31, 276,1959 BIOFX* 9-4/970 NIIRDN 6, 215, 1982 JIHTAB 23, 259, 1941

TARGET ORGAN DATA:

Behavioral (headache)

Gastrointestinal (nausea or vomiting)
Kidney, ureter, bladder (changes in tubules)

Kidney, ureter, bladder (changes in urine composition)

Paternal effects (spermatogenesis)

Paternal effects (testes, epididymis, sperm duct)

Effects on fertility (male ferility index)

Effects on fertility (post-implantation mortality)

Only selected registry of toxic effects of chemical substance (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 combustlble 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 Air Transport: Non-hazardous for air transport.

Non-hazardous for transport

This substance is considered to be non-hazardous for 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.

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