



New England Biolabs
240 County Road
Ipswich, MA 01938

MATERIAL SAFETY DATA SHEET

Telephone: 978-927-5054
Toll free: 800-632-5227
Fax: 978-921-1350
e-mail: info@neb.com

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**Buffer
#B0332**

SECTION 1—CHEMICAL INFORMATION

Product Name: Hemo KlenTaq Reaction Buffer Pack			SARA 313	NO
1. Glycerol	3 %	Cas.	#56-81-5	NO
2. Tricine	< 1%	Cas.	#5704-04-1	NO
3. Ammonium Sulfate	< 1%	Cas.	#7783-20-2	NO
3. Magnesium Chloride	< 1%	Cas.	#7786-30-3	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 * GLYCERIN, 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.

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 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.

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%

Specific Gravity: 1.262

Solubility: Water -Z26130

Vapor Pressure: < 1 MMHG @ 20°C

Vapor Density: 3.1 G/L

PH: 5.5–8.0

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid:

Strong oxidizing agents, strong bases.

Hazardous Decomposition Products:

Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization: Will not occur.

PROTECT FROM HEAT AND MOISTURE

SECTION 11—TOXICOLOGICAL INFORMATION

Route of Exposure:

Skin Contact

May cause skin irritation

Eye Contact:

May cause eye 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.

Multiple Routes

May be harmful by inhalation, ingestion, or skin absorption

Chronic Effects: Target Organs, Kidney

RTECS #:MA8050000

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:

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
IVN-RAT LD50: 5566 MG/KG
ORL-MUS LD50: 4090 MG/KG
IPR-MUS LD50: 8700 MG/KG
SCU-MUS LD50: 91 MG/KG
IVN-MUS LD50: 4250 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

FEFRA7 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 fertility 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 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.

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