New England Biolabs 240 County Road Beverly MA 01915

## MATERIAL SAFETY DATA SHEET

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INTERNET e-mail: Revision Date: 7/07

Kit #E6901

## **SECTION 1 – CHEMICAL INFORMATION**

Product Name: IMPACT™ Kit

#### SECTION 2 – CHEMICAL INFORMATION

1.	Glycerol	30%	Cas.	#56-81-5
2.	Tris-HCI	< 1%	Cas.	#77-86-1
3.	EDTA	< 1%	Cas.	#60-00-4
4.	DTT	< 1%	Cas.	#3483-12-3
5.	SDS	6%	Cas.	#None
6.	Ethanol	30%	Cas.	#64-17-5
7.	3X Sample Buffer	< 1%	Cas.	#15-39-9
8.	Chitin Beads		Cas.	#1398-61-4
_	D 11110			

9. Rabbit Serum Mixture

#### SECTION 3-COMPOSITION/INFORMATION ON INGREDIENT

**CHEMICAL NAME: GLYCEROL** 

CAS No.: 56-81-5 EC No.: 200-289-5 MF: C3H803

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-PROPANETRIOL \* STAR \* SYNTHETIC GLYCERIN \* TECHNICAL GLYCERINE \* TRIHYDROXYPROPANE \* 1,2,3-TRIHYDROXYPROPANE.

## SECTION 4-HAZARDOUS IDENTIFICATION

## **LABEL PRECAUTIONARY STATEMENTS:**

Target Organ (S) CAUTION

Kidney Avoid contact by inhalation, skin and ingestion. Hygroscopic

## **SECTION 5 –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 is 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 6-FIRE FIGHTING MEASURES

**Extinguishing Media:** 

Water Spray

Carbon Dioxide, Dry Chemical powder or appropriate foam

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

Prevent contact with skin and eyes.

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

## **SECTION 7 – ACCIDENTAL RELEASE MEASURES**

PROCEDURE(S) OF PERSONAL PRECAUTION(S):

Wear self-contained breathing apparatus, chemical safety goggles, rubber boots, and chemical resistant gloves.

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 8 – HANDLING AND STORAGE**

Refer to Section 8

#### SECTION 9-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.

Eve:

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 10- PHYSICAL AND CHEMICAL PROPERTIES**

Physical Properties: Explosion Limits in Air:

Melting Point: 20° C

**Boiling Point:** 182° C

Flash Point:  $> 392 \text{ F}, > 200^{\circ} \text{ C}$ 

**Lower:** 0.9% **PH:** 5.5–8.0

Vapor Density: 3.1 G/L

Specific Gravity: 1.262 Solubility: Water -Z26130

Vapor Pressure: < 1 MMHG @ 20°C

# **SECTION 11 – STABILITY AND REACTIVITY**

Stability: Stable Hazardous Decomposition Products:

Materials to Avoid:

Strong oxidizing agents, strong bases.

Carbon Monoxide. Carbon Dioxide

Hazardous Decomposition Products: Will not occur.

PROTECT FROM HEAT

## **SECTION 12-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.

RTECS #:MA8050000

GLYCEROL

Chronic Effects: Target Organs, Kidney

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

**IRRITATION DATA:** 

 SKN-RBT
 500 MG/24H MLD
 85JCAE -, 207, 1986

 EYE-RBT
 126 MG MLD
 BIOFX\* 9-4/970

 EYE-RBT
 500 MG/24H MLD
 85JCAE -, 207, 1986

**TOXICITY DATA:** 

**ORL-RAT LD50**: 12600 MG/KG FEPRA7 4, 142, 1945 **IHL-RAT LC50:** > 570 MG/M3/1H BIOFX\* 9-4/970 IPR-RAT **LD50**: 4420 MG/KG RCOCB8 56, 125,1987 SCU-RAT LD50: 100 NIIRDN 6, 215, 1982 MG/KG IVN-RAT LD50: 5566 MG/KG ARZNAD 26,1581,1976 ORL-MUS LD50: 4090 MG/KG FRZKAP (6), 56, 1977 **IPR-MUS LD50**: 8700 MG/KG ARZNAD 28,1579,1978 
 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

**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)

NIIRDN 6, 215, 1982

JAPMA8 39, 583, 1950

DMDJAP 31, 276,1959

NIIRDN 6, 215, 1982

JIHTAB 23, 259, 1941

BIOFX\* 9-4/970

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 13-ECOLOGICAL INFORMATION**

Data not yet available

#### **SECTION 14-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 combustable solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### **SECTION 15- TRANSPORT INFORMATION**

Contact New England Biolabs, Inc. Company for Transportation Information.

#### **SECTION 16- REGULATORY INFORMATION**

#### Reviews, standards and Regulations:

OEL=MAK

ACGIH TLV-TWA 10 MG/M3

DTLVS\* TLV/BEI, 1999

EPA FIFRA 1988 PESTICIDE SUBJECT TO REGISTRATION OR RE-REGISTER FEREAC 54, 7740, 1989.

MSHA STANDARD: NUISANCE PARTICULATES (MIST)

DTLWS\* 3, 20, 1973

OSHA PEL (GEN INDU): 8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29, 1910.1000, 1994

OSHA PEL (GEN INDU): 8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29, 1910.1000, 1994

OSHA PEL (CONSTRUC): 8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29, 1926.55, 1994

OSHA PEL (CONSTRUC): 8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29, 1926.55, 1994

OSHA PEL (SHIPYARD): 8H TWA 15 MG/M3, TOTAL DUST

CFRGBR 29, 1915.1000, 1993

OSHA PEL (SHIPYARD): 8H TWA 5 MG/M3, RESPIRABLE FRACTION

CFRGBR 29, 1915.1000, 1993

OEL -Australia: TWA 10 MG/M3, JAN 1993

OEL -Belgium: TWA 10 MG/M3, JAN 1993

OEL -Finland: TWA 20 MG/M3, JAN 1999

OEL -France: VME 10 MG/M3, JAN 1999

OEL -The Netherlands: MAC-TGG 10 MG/M3, Jan 1999

OEL -United Kindgom: TWA 10 MG/M3, MIST Sept 2000

OEL in Argentina, Bulgaria, Colombia, Jordan, Korea Check ACC

NOHS 1974: HZD 35085; NIS 358; TNF 86657; NOS 198;

TNE 1085329

NOHS 1983: HZD 35085; NIS 310; TNF 67054; NOS 215;

TNE 2135546; TFE 1346631

EPA TSCA SECTION 8 (B) Chemical Inventory

EPA TSCA SECTION 8 (D) Unpublished Health/Safety Studies

EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, Jan. 2001

Jan. 200

#### **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.