



New England Biolabs
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MATERIAL SAFETY DATA SHEET

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Msds Revision Date: 2/09

**Competent Cells
#C1007**

SECTION 1—CHEMICAL INFORMATION

Product Name: *K. Lactis* Protease Deficient Competent Cell Sampler

SARA 313 NO

SECTION 2—COMPOSITION/INFORMATION ON INGREDIENT

The hazards indentified with this product are those associated with the following component (s):

Glycerol 20 % Cas. #56-81-5 NO

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: Suitable: Water spray.

Carbon Dioxide, dry chemical powder or appropriate foam.

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

Specific Hazard(s): Emits toxic fumes under fire conditions.

Flash point: N/A

Flammability: N/A

Autoignition Temp: N/A

SECTION 6—ACCIDENTAL RELEASE MEASURES

PROCEDURE(S) OF PERSONAL PRECAUTION(S): Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves and Chemical safety goggles.

METHODS FOR CLEANING UP: Cover with dry lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

SECTION 7—HANDLING AND STORAGE

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

Storage: Suitable: Keep tightly closed.

SECTION 8—EXPOSURE CONTROLS/PPE

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

Personal Protective Equipment: Government approved respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

SECTION 9—PHYSICAL AND CHEMICAL PROPERTIES

Physical Properties:

Melting Point: 20°C

Boiling Point: 182°C

Flash Point: 320°F, 160°C Method: closed up

Autoignition Temp: 370°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.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, sulfur dioxides.

Hazardous Polymerization: Hazardous Polymerization: Will not occur

SECTION 11—TOXICOLOGICAL INFORMATION

Route of exposure:

Skin contact: May cause skin irritation.

Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption.

Eye contact: May cause eye irritation.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Signs and Symptoms of Exposure: Nausea, headache and vomiting. To the best of our knowledge, the properties have not been thoroughly investigated.

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	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 MG/KG	NIIRDN 6, 215, 1982
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	NIIRDN 6, 215, 1982
IVN-MUS LD50: 4250 MG/KG	JAPMA8 39, 583, 1950
ORL-RBT LD50: 27 GM/KG	DMDJAP 31, 276,1959
SKN-RBT LD50: >10 GM/KG	BIOFX* 9-4/970
IVN-RBT LD50: 53 GM/KG	NIIRDN 6, 215, 1982
ORL-GPG LD50: 7750 MG/KG	JHHTAB 23, 259, 1941

TARGET ORGAN DATA:

Behavioral (headache)
Gastrointestinal (nausea or vomiting)
Kidney, ureter, bladder (changes in tubules)
Kidney, ureter, bladder (changes in urine comp)
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

No Data Available.

SECTION 13—DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service to dispose of this material. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14—TRANSPORT INFORMATION

DOT

Proper Shipping Name: None
Non-Hazardous for Air Transport: non-hazardous for air transport.

IATA

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

SECTION 15—REGULATORY INFORMATION

US Classification and Label Text

US Statements: 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: Yes

NDSL: No

SECTION 16—OTHER INFORMATION

DISCLAIMER

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

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.



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OTHER INFORMATION CALLS 1-978-927-5054
FAX 1-978-921-1350
INTERNET e-mail: info@neb.com
Revision Date: 2/09

**NEB Yeast
Transformation
Reagent
#C1007**

SECTION 1—CHEMICAL INFORMATION

Product Name: NEB Yeast Transformation Reagent

1. PEG	40%	Cas.	#25322-86-3
2. Lithium Chloride	< 1%	Cas.	#7447-41-8
3. TrisHCl	< 1%	Cas.	#77-86-1
4. DNA	< 1%	Cas.	#None

SECTION 2—COMPOSITION/ INFORMATION ON INGREDIENT

CHEMICAL NAME: PEG

CAS No.: 56-81-5

Formula: C3H8O3

SARA 313: No

RTECS Number: MA8050000

SECTION 3—HAZARDOUS IDENTIFICATION

HMIS Rating	NFPA Rating
Health: 0*	Health: 0
Flammability: 0	Flammability: 0
Reactivity: 0	Reactivity: 0

* additional chronic hazards present

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 is difficult, call a physician.

DERMAL EXPOSURE: In case of contact, immediately wash skin with soap and copious amounts of water.

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

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

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

Flammability: N/A
Prevent contact with skin and eyes.

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 inhalation.
Avoid contact with eyes, skin and clothing.
Avoid prolonged or repeated exposure.

Storage

Suitable: Keep tightly closed.

SECTION 8—EXPOSURE CONTROLS /PPE

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

Personal Protective Equipment:

Eye:

Compatible safety goggles..

Hand:

Compatible chemical -resistant gloves.

General Hygiene Measures:

Wash thoroughly after handling.

Wash contaminated clothing before use.

AVOID INHALATION

Keep Tightly Closed

Store in a cool dry place.

SECTION 9—PHYSICAL AND CHEMICAL PROPERTIES

Physical Properties:

Melting Point: N/A

Boiling Point: N/A

Flash Point: N/A

Autoignition Temp: N/A

Explosion Limits in Air:

Lower: N/A

Specific Gravity: N/A

Solubility: N/A

Vapor Pressure: N/A

Vapor Density: 3.1 G/L

PH: 5.5–8.0

SECTION 10—STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid:

Strong oxidizing agents

Hazardous Polymerization:

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

Multiple Routes

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: Nausea, headache and vomiting

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

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

Canada Regulatory Information

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

DSL: No

NDSL: No

United States Regulatory Information:

Sara Listed: No
TSCA Inventory Item: Yes Yes

SECTION 16—OTHER INFORMATION

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