New England Biolabs
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MATERIAL SAFETY DATA SHEET

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

Kinase
#P6000S

SECTION 1 –CHEMICAL INFORMATION

Product Name: cAMP-dependent Protein Kinase (PKA), catalytic subunit

SECTION 2 –CHEMICAL INFORMATION

1.	Glycerol	50%	Cas.	#56-81-5
2.	Sodium Chloride	< 1%	Cas.	#7647-14-5
3.	Tris-HCl	< 1%	Cas.	#77-86-1
4.	EDTA	< 1%	Cas.	#60-00-4
5.	BME	< 1%	Cas.	#60-24-2

SECTION 3–COMPOSITION/ INFORMATION ON INGREDIENT

CHEMICAL NAME: GLYCEROL

CAS No.: 56-81-5 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-PROPANETRIOL * STAR * SYNTHETIC GLYCERIN * TECHNICAL GLYCERINE * TRIHYDROXYPROPANE * 1,2,3-TRIHYDROXYPROPANE.

SECTION 4–HAZARDOUS IDENTIFICATION

LABEL PRECAUTIONARY STATEMENTS:

CAUTION

Avoid contact by inhalation, skin and ingestion.

Target Organ (S)
Kidney
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

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.

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.

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 10– 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 11 – STABILITY AND REACTIVITY

Stability: Stable

Materials to Avoid:
Strong oxidizing agents, strong bases.

PROTECT FROM HEAT

Hazardous Decomposition Products:
Carbon Monoxide, Carbon Dioxide

Hazardous Decomposition Products: Will not occur.

SECTION 12–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.

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	**5OO** MG/24H MLD	85JCAE -, 207, 1986
EYE-RBT	**126** MG MLD	BIOFX* 9-4/970
EYE-RBT	**5OO** MG/24H MLD	85JCAE -, 207, 1986

TOXICITY DATA:

ORL-RAT	**LD5O:** 12600	MG/KG	FEPRA7 4, 142, 1945
IHL-RAT	**LC5O:** > 570	MG/M3/1H	BIOFX* 9-4/970
IPR-RAT	**LD5O:** 4420	MG/KG	RCOCB8 56, 125,1987
SCU-RAT	**LD5O:** 100	MG/KG	NIIRDN 6, 215, 1982
IVN-RAT	**LD5O:** 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	**LD5O:** 91	MG/KG	NIIRDN 6, 215, 1982
IVN-MUS	**LD5O:** 4250	MG/KG	JAPMA8 39, 583, 1950
ORL-RBT	**LD5O:** 27	GM/KG	DMDJAP 31, 276,1959
SKN-RBT	**LD5O:** >10	GM/KG	BIOFX* 9-4/970
IVN-RBT	**LD5O:** 53	GM/KG	NIIRDN 6, 215, 1982
ORL-GPG	**LD5O:** 7750	MG/KG	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 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

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.