

SAFETY DATA SHEET

Section 1: Company and Chemical Identification

Epicentre® an Illumina® Company
5602 Research Park Blvd., MADISON WI 53719
Emergency Tel: 608-258-3080 or 800-284-8474 7:30-4:30 Central

This MSDS contains information about glycerol and applies to *EPICENTRE* products supplied as aqueous solutions containing 50% glycerol including OmniCleave™ Endonuclease Dilution Buffer as a component of OC7810K and OC7850K, Ribonuclease 1 Dilution Buffer as a component of N6901K and N6905K, TAP Dilution Buffer as a component of T028500S, Ampligase® 1X Storage Buffer A3201S and A3205S. This data sheet is also provided as a 50% solutions for multiple enzymes represented by catalog numbers A0102K, A0125K, A30201, A3202K, A3210K, A32250, A32750, A8101, AC0706, AC0707, ACM04033, ACM04037, AP49010, AP49050, AP49100, AS2607, AS3107, ASB71110, ASF3257, ASF3507, AT72250, AT72250N, BCD0401K, BH101K, BH1100, BL1950K, BL901K, C90100, C90500, D0602H, D0605H, D69305K, D7P9201K, DB0711K, D090710K, DB715K, D7P9205K, D9902K, D9905K, D9910K, DL04082H, DP081025K, DP0810500, E3101K, E3105K, E3110K, E70100, EM091120, EM091150, EN510100, EN510250, EX4405K, EX4425K, F10500, F1001K, F1005K, F7205K, F72250N, F72250, F72500, F7201K, F7205K, FSE5101K, FSE51100, G08081K, G0808250, G09050, G09100, G09200, G31050 G31200, H39100, H39500, H92100, HU59100, HU5901K, KL0705K, KL081001K, KL080911K, KL0810250, KL105000, KP8100K, KP810250, L0805H, L0810H, L0820H LH805H, LE035H, LE032K, LH810H, LH820H, LR5010, LR5025, LT4450, LT44200, M4410K, M4425H, M6110K, M6125H, MSTA5110, MSTA5124, N6901K, N6905K, NT09100K, NT09500K, OC7810K, OC7850K, P0501K, P0503K, P0505H, Q82250N, Q82100, Q82250, Q82500, Q8201K, Q8205K, QU92125, QB501250, QU92500, QU9201K, R1802M, R1804M, R1810M, R52250, RC44200, RC441MG, RG90910K, RG90925, RJ411050, RJ411250, R0601K, RN02950, RNR07250, RS12100, RS12500, RT80110K, RT80125K, S90050, S90250, SSB02200, S3301K, S3305H, S5401L, S5401S, T5E4111K T7905K, T7950K, TE6605, TE661K, TE665K, TER51020, TM910K, TH950K, TNP10622, TNP10623, TY0261H, TTH72100, TTH72250, TTH7225N, TTH72500, TTH7201K, TTH7205K, UEM04100, VT710500, VT101K, VT7105K, X40501K, X40505K, X40520K.

This safety data sheet also represents glycerol solutions for the TransforMax™ and CopyCutter™ Chemically and Electrocompetent cells represented by catalog numbers C300C105, C400CH10, C400EL10, CC02810, CCECPCR1, CCFOS059, CCPCR1CC, CT1C0210, EC0205T1, EC02T110, EC02T15, EC10005, EC10010, EC300105, EC300110, EC300150, EC6P0950H, and ECP09500.

Section 2: Composition and Information on Hazardous Ingredients

<u>Component</u>	<u>CAS No</u>	<u>EC#</u>	<u>% Wt</u>
Glycerol	56-81-5	200-289-5	50
EC #: 200-289-5			

Synonyms Glycerin, glyceritol, glycyol alcohol, 1,2,3-Propanetriol, Trihydroxypropane, 1,2,3-trihydroxypropane

Section 3: Hazards Identification

Irritant Irritating to eyes and skin; target organs kidneys

In case of contact with eyes, rinse immediately with copious amounts of water and seek medical attention. Wear suitable protective clothing

Section 4: First Aid Measures

Emergency and first aid information:

Ingestion: Wash mouth with water and seek medical advice immediately. Do not induce vomiting.

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. Call a physician if breathing becomes difficult and give oxygen.

Contact: Flush with copious amounts of water for at least 15 minutes while removing clothing and shoes. Consult a physician if persistent rash develops.

Section 5: Fire Fighting Measures

Extinguishing Media: Water spray, carbon dioxide, dry chemical powder or appropriate foam.

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

Unusual Fire and explosions hazards: Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

Wear appropriate protective clothing and respirator. Dike and absorb with a suitable inert absorbent (e.g., sand or vermiculite). Place in closed waste container for disposal. Avoid contact with skin and eyes. Ventilate area and wash spill site after material clean-up is complete.

Section 7: Handling and Storage

Respiratory protection:

If needed, use appropriate respiratory protection approved by NIOSH/MSHA or appropriate agency.

Ventilation: Mechanical (general) or local exhaust as needed. Keep mist levels low.

Personal Protective Equipment: Protective, chemical-resistant gloves, safety glasses or goggles, and lab coat are recommended. Access to safety shower and eyewash.

Work/Hygienic practices: Avoid contact with eyes, skin and clothes. Wash thoroughly after handling.

Additional Information: Violent or explosive reactions can occur upon direct contact with sodium hydride, phosphorous trioxide, perchloric acid, chlorine, calcium hypochlorite, nitric acid and hydrofluoric acid, nitric acid and sulfuric acid, sodium peroxide, hydrogen peroxide or potassium permanganate.

Section 8: Exposure Controls/Personal Protection

Wear appropriate NIOSH/MSHA- approved respirator, chemical-resistant gloves, safety goggles, and other protective equipment and clothing.

Mechanical exhaust required. Safety shower and eye bath. do not breathe vapor. Avoid contact with eyes, skin and clothing.

Avoid prolonged or repeated exposure. Wash thoroughly after handling. Keep in a cool dry place.

Section 9: Physical and Chemical Properties

Appearance and odor: viscous, colorless, odorless liquid

Freezing Pt (50% aqueous sol'n): -23°C

Boiling Point: 182°C @ 20 mm

Melting Pt: 20°C

Solubility in H₂O: Miscible (>10%)

Specific Gravity: 1.261

Vapor Density: 3.1

Vapor Pressure: 3 mm @ 20°C

Flash Point: 176°C

Extinguishing Media: Water, CO₂, Dry chemicals

Fire fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Unusual fire or explosion hazards: Contact with strong oxidizers may cause fire or explosion.

May emit toxic fumes.

Section 10: Stability and Reactivity

Stability: Stable

Incompatibility: Strong oxidizing agents, Strong bases

Hazardous decomposition products: Carbon monoxide, carbon dioxide

Hazardous polymerization: Does not occur

Section 11: Toxicological Information

Acute Effects: May be harmful by inhalation, ingestion, or absorption through skin. Causes eye & skin irritation. May be irritating to mucous membranes and upper respiratory tract. Prolonged exposure can cause nausea, headache and vomiting.

Chronic Effects: Target organ: kidneys. to best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. RTECS: MA8050000 Glycerol

Irritation Data:

Skin rabbit: 500 MG/24H MLD 85JCAE - ,207, 1986

Eye rabbit: 126 MG MLD BIOFX* 9-4/1970

Eye rabbit: 500 MG/24H MLD 85JCAE -,207,1986

Toxicity Data:

Oral rat: LD50:12600 MG/KG FEPR7 4,142,1945

Inhalation rat: LC50:>570 MG/M3/1H BIOFX* 9-4/1970

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

Oral mouse: LD50: 4090 MG/KG FRZKAP (6)56,1977

IPR mouse: LD50: 8700 MG/KG ARZNAD 28,1579,1978

SCU mouse: LD50:91 MG/KG NIIRDN 6,215,1982

IVN mouse: LD50: 4250 MG/KG JAPMA8 39,583,1950

Oral rabbit: LD50: 27 GM/KG DMDJAP 31,276,1959

Skin rabbit: LD50:>10 GM/KG BIOFX* 9-4/1970

IVN rabbit: LD50:53 GM/KG NIIRDN 6,215,1982

Oral guinea pig: LD50:7750 MG/KG JIHTAB 23,259,1941

Target Organ Data

Behavioral (headache) Gastrointestinal (nausea and vomiting) paternal effects (spermatogenesis, testes, epididymis, sperm count) Effects of fertility (male fertility index) effects of fertility (post implantation mortality) only selected registry of toxic effects of chemical substances (RTECS) Data is presented here. See actual entry in RTECS for complete information.

Section 12: Ecological Information

No data available.

Section 13: Disposal Considerations

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14: Transport Information

No special considerations are known.

Section 15: Regulatory Information

European Information: irritant R36/38 Irritating to eyes and skin. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36 Wear suitable protective clothing.

Reviews, standards and regulations:

OEL=MAK

ACGIH TLV-TWA 10 MG/M3, Inhalable particulate DTLVS* TLV/BEI, 1997

EPA FIFRA 1988 Pesticide subject to registration or re-registration

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

OSH PEL (GEN INDU): 8H TWA 5 MG/M3, Respirable fraction CFRGBR 29,1910.1000,1994

OSHA PEL (construction) :8H TWA 15 MG/M3, total dust CFRGBR 29,1926.55, 1994

OSHA PEL (construction): 8H TWA 5 MG/M3 total dust CFRGBR 29, 1926.55,1994

OSH PEL (shipyard): 8H TWA 5 MG/M3, Respirable fraction CFRGBR 29,1915.1000,1993

OSH PEL (shipyard): 8H TWA 15 MG/M3, total dust CFRGBR 29,1915.1000,1993

OEL-Australia: TWA 10 MG/M3 Jan 1993

OEL-Belgium: TWA 20 MG/M3 Jan 1993

OEL-Finland: TWA 10 MG/M3 Jan 1993

OEL-France: TWA 10 MG/M3 Jan 1993

OEL-The Netherlands: TWA 10 MG/M3 Jan 1993

OEL-United Kingdom: TWA 10 KG/M3 Jan 1993

OEL-Bulgaria, Colombia, Jordan, Korea, check ACGIH TLV

OEL-New Zealand, Singapore, Vietnam check ACGIH TLV

NOHS 1974: HZD 35085; NIS 358, TNF 86657; NOW 198: TNE 1085329 NOES 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 June 1998.

Section 16: Other Information

The information herein is based on information from suppliers believed to be reliable; however, *EPICENTRE* makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages thereto. This document is offered solely as a guide for the customer's consideration, investigation and verification. These suggestions do not replace state, municipal and/or insurance requirements. Any use of this information must be determined by the user to be in accordance with applicable Federal, state and local regulations.