

## MSDS

Version 1.0  
Revision Date: 08/29/2013

### Product and Company Identification

**Product Name:** T4 DNA Ligase  
**Cat #:** TL-100, TL-200, TL-300, TL-400, TL-OEM  
**Product Use:** For Research Use Only. Not for use in diagnostic procedures  
**Company:** Molecular Cloning Laboratories (MCLAB)  
320 Harbor Way  
South San Francisco  
CA 94080  
**Telephone:** 888-MCLAB-88  
650-871-8771  
**Fax:** 650-871-8796

### Composition/information on ingredients

#### Hazardous/Non-hazardous Compounds

CHEMICAL NAME	CAS #	Formula	SARA 313
Glycerol	56-81-5	HOCH <sub>2</sub> CHOHCH <sub>2</sub> OH	NO

Synonyms: glycerin, glycerol USP, glycerine, 1,2,3-propanetriol, propanetriol, 1,2,3-trihydroxypropane, bulboid, citifluor AF 2, cristal, emergy 916, glyrol, glycerol ophthalgan, glyciterol, glycyol alcohol, osmoglyn, pricerine 9091

### Hazardous Ingredients Identification

#### Emergency Overview:

May cause irritation to skin, eyes, and respiratory tract, may affect kidneys.

#### HMIS and NFPA Ratings:

0 – Minimal or None, 1 – Slight, 2 – Moderate, 3 – Serious, and 4 – Severe

Health: 2  
Flammability: 0  
Reactivity: 1

### First Aid Measures

#### FIRST AID:

**SKIN:** Wash exposed area with soap and water. If irritation persists, seek medical attention.

**EYES:** Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

---

**INGESTION:** Give several glasses of milk or water. Vomiting may occur spontaneously, but it is not necessary to induce. Never give anything by mouth to an unconscious person.

## Fire Fighting Measures

**Fire Extinguisher Type:**

Carbon Dioxide, dry chemical powder or appropriate foam

**Fire/Explosion Hazards:**

Slight Flammability. Material must be heated before ignition will occur.

**Fire Fighting Procedure:**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

## Accidental Release Measures

Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

## Handling and Storage

HANDLING	STORAGE	NOTES:
Avoid inhalation	Keep tightly closed	Hygroscopic
Avoid contact with eyes, skin, and clothing	Store in cool, dry place	
Avoid prolonged or repeated exposure		

## Exposure Controls/Personal Protective Equipment

**Engineering Controls:**

Safety shower and eye wash. Mechanical exhaust.

**Personal Protective Equipment:**

**Eye Protection:**

Safety goggles.

**Hand Protection:**

Compatible resistant gloves.

**Respiratory Protection:**

None required.

**Hygiene Measure:**

General practice, wash (hands and skin) thoroughly after handling. Remove and wash contaminated clothing.

## Physical and Chemical Properties

Physical State: Form: Liquid

Color: Clear or colorless

Odor: None or odorless

Property	Value	Temperature or Pressure
Boiling Point Range:		182°C

---

Melting Point Range:		20°C
Flash Point:		160°C Method: Closed cup
Auto Ignition Temp:		370°C
Vapor Pressure:	< 1 mmHg	20°C
Vapor Density:	3.1 g/l	
Specific Gravity:	1.262	
Solubility in Water:	Soluble	

## 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

## Toxicological Information

**Conditions aggravated / target organs:** Single dose oral toxicity is low. Ingestion of larger amounts may cause injury. Signs and symptoms of excessive exposure may be central nervous system effects and increased blood sugar levels. Person with preexisting conditions may be more susceptible.

**DOT Classification:** Not Regulated

DOT regulations may change from time to time. Please consult the most recent version of the relevant regulations.

## Ecological Information

Data not available.

## Disposal considerations

Dispose of in accordance with local regulations.

## Transport Information

Substance considered non-hazardous for ground or air transport. No DOT shipping name required.

## Regulatory Information

**OSHA Hazards:** None known.

**US Classification and Label Test**

---

**US Statements:** Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

**United States Regulatory Information:**

**Sara Listed:** No

**TSCA Inventory Item:** Yes

**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

EU Additional Classification

**S:** 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

## Other Information

**Disclaimer:** This product intended for R&D and clinical diagnostic uses. Use of material must be supervised by technically qualified individual. This above information is believed to be correct but may not be all inclusive and shall be used as a reference guide only. Company shall not be held liable for any damage resulting from handling or contact with above product.