

## MSDS

Version 2.0

### Product and Company Identification

**Product Name:** 10X Thermal Chelator  
**Cat #:** TCHE-100  
**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

### Hazards Identification

#### Emergency Overview

Causes irritation to skin, eyes and respiratory tract.  
Harmful by inhalation and if swallowed.

#### Potential health effects

##### Inhalation :

Causes respiratory tract irritation.  
Harmful if inhaled.

##### Skin :

Causes skin irritation.

##### Eyes :

Causes eye irritation.

##### Ingestion :

Harmful if swallowed.

##### Physical and chemical hazards :

This information is not available.

##### Chronic exposure:

Prolonged skin contact may defat the skin and produce dermatitis.  
Kidney injury may occur.

##### Aggravated Medical Condition:

Skin disorders  
Kidney disorders  
Respiratory disorder  
Eyes

##### Target Organs :

Kidney

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## Composition/Information on ingredients

Hazardous components	CAS-No.	Weight %
Tris Base	77-86-1	1 - 10 %
Glycerol	56-81-5	10 - 30 %

## First Aid Measures

**Eye contact:** Immediately flush the eye for at least 15 minutes. Get medical attention. **Inhalation:** Remove to fresh air immediately. Get medical attention immediately. If not breathing, give artificial respiration.

**Skin contact:** Rinse immediately with plenty of water and seek medical advice. Remove and wash contaminated clothing before re-use.

**Ingestion:** If swallowed, call a poison control centre or doctor immediately. Never give anything by mouth to an unconscious person.

## Fire-Fighting Measures

**Suitable extinguishing media:** Water spray, Carbon dioxide (CO<sub>2</sub>), Foam, Dry chemical

**Hazardous decomposition products:** Carbon oxides, nitrogen oxides (NO<sub>x</sub>)

**Special protective equipment for fire-fighters:** Wear self contained breathing apparatus for fire fighting if necessary. Use personal protective equipment.

## Accidental Release Measures

### Personal precautions:

Ensure adequate ventilation.

Avoid contact with skin, eyes and clothing.

Avoid breathing dust/fume/gas/mist/vapours/spray.

### Environmental precautions:

Should not be released into the environment. Prevent product from entering drains.

### Methods for cleaning up:

Clean the contaminated floors and objects thoroughly while observing environmental regulations. Ensure adequate ventilation.

## Handling and Storage

### Precautions for safe handling:

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.

### Storage conditions:

Protect against physical damage. Isolate from incompatible substances. Store in original container. See the product label for specific storage requirements.

## Exposure Controls/Personal Protection Exposure limit(s):

Hazardous components	Regulation	Type of listing	Value
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Glycerol	California	PELtotal dust	10 mg/m <sup>3</sup>
	California	PELrespirable fraction	5 mg/m <sup>3</sup>
	OSHA	TWA 1	5 mg/m <sup>3</sup> total
	OSHA	TWArespirable fraction	5 mg/m <sup>3</sup>
	ACGIH	TWAMist	10 mg/m <sup>3</sup>

**Eye protection:** Chemical resistant goggles must be worn.

Ensure that eyewash stations and safety showers are close to the workstation location.

**Hand protection:** Wear suitable gloves.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

**Respiratory protection:**

Avoid breathing vapors, mist or gas.

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. For unknown concentrations or Immediately Dangerous to Life or Health (IDLH), use a full-facepiece positive pressure air supplied

**Skin protection:** Wear suitable protective clothing.

**Engineering measures:**

Maintain air concentrations below occupational exposure standards. Use only in area provided with appropriate exhaust ventilation.

## Stability and Reactivity

**Stability:** This product is stable under expected conditions of use.

**Conditions to Avoid:** None in particular.

**Incompatible Materials:** None in particular.

**Hazardous Decomposition Products:**

At Elevated Temperatures: Carbon Dioxide, Carbon Monoxide, Chloride dioxide, Sodium Oxide.

## Physical and Chemical Properties

**Physical state:** liquid

**Colour:** This information is not available.

**Odour:** This information is not available.

**Threshold:** This information is not available.

**pH:** This information is not available.

**Boiling point:** This information is not available.

**Melting point:** This information is not available.

**Vapour pressure:** This information is not available.

**Water solubility:** This information is not available.

**Flash point:** This information is not available.

**Explosion limits:** This information is not available.

**Density:** This information is not available.

**Percent volatile:** This information is not available.

**Volatile organic:** This information is not available.

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## Stability and Reactivity

**Conditions to avoid:** Keep away from open flames, hot surfaces and sources of ignition.

**Materials to avoid:** Strong acids and oxidizing agents, Acetic anhydride, Isocyanates, Ammonia, Bases, Copper, Aluminium

**Hazardous decomposition products:** Carbon oxides, nitrogen oxides (NOx)

## Toxicological Information

**Hazardous components :** Tris Base

**Acute oral toxicity:** Oral LD50 rat 5,900 mg/kg

**Hazardous components :** Glycerol

**Acute oral toxicity:** LD50 rat 12,600 mg/kg

**Acute inhalation toxicity:** LC50 rat 1 h > 570 mg/m<sup>3</sup>

**Acute dermal toxicity:** LD50 rat > 21,900 mg/kg

### Further information

The product itself has not been tested.

## Ecological Information

We have no quantitative data concerning the ecological effects of this product.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

### Component: Glycerol Ecotoxicity effects Toxicity to fish

LC50 Oncorhynchus mykiss (rainbow trout) 96 h

51,000 - 57,000 mg/l

**Toxicity to daphnia:** EC50 Daphnia magna (Water flea) 24 h > 500 mg/l

## Disposal Considerations

### Environmental precautions:

Should not be released into the environment. Prevent the product from entering drains.

**Disposal methods:** Dispose of in accordance with local regulations.

**General advice:** DISPOSAL CONSIDERATIONS

The product has to be disposed of as laboratory chemical in accordance with local regulations.

## Transport Information

### DOT:

DOT: ROAD TRANSPORT

Not dangerous goods

### IATA-DGR:

Not dangerous goods

### IMDG:

Not dangerous goods

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## Regulatory Information

### US Regulations:

40 CFR § 302.4 Designation of hazardous substances (SARA 302).

Non-hazardous substance

40 CFR § 355 Appendices A and B - The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (SARA304).

Non-hazardous substance

40 CFR § 372.65 Toxic Chemical Release Reporting (SARA 313).

Non-hazardous substance

### State Regulations:

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

No components found on the California Director's List of Hazardous Substances.

U.S. - California - 8 CCR Section 5200-5220 - Specifically Regulated Carcinogens

No components found on the California Specifically Regulated Carcinogens List.

U.S. - California - 8 CCR Section 5203 Carcinogens

No components found on the California Section 5203 Carcinogens List.

U.S. - California - 8 CCR Section 5209 Carcinogens

No components found on the California Section 5209 Carcinogens List.

U.S.- New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1)

Listed Components regulated under the New Jersey Worker and Community Right-to-Know Act.

Hazardous components

Glycerol

U.S.- Massachusetts - General Law Chapter 111F (MGL c 111F) - Hazardous

Substances Disclosure by Employers (a.k.a. Right to Know Law)

Listed Components regulated under the Massachusetts Hazardous Substances

Disclosure by Employers Law.

Hazardous components

Glycerol

California Prop. 65

Not Regulated

### National Inventory Status - United States of America:

TOXIC SUBSTANCES CONTROL ACT (TSCA)

All the components of this substance are listed on or are exempt from the inventory. For purposes of 40 CFR 720.36 , this product is for Research and Development (R&D) Use Only

TOXIC SUBSTANCES CONTROL ACT, SECTION 12(B) EXPORT NOTIFICATION

40CFR 707, SUBPART D

Not Required.

## Other Information

**For research use only.** The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.