

# Material Safety Data Sheet

**Product:** 1M Tris pH7.4

**Date:** 12/26/2013

**Product code:** GB40

## 1 IDENTIFICATION OF SUBSTANCE

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

GMbiolab Co., Ltd.

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## 2 COMPOSITION, INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Solution, consisting of the following components.

Component	CAS No.	Percent
Tris	77-86-1	5-15%
Hydrogen chloride	7647-01-0	1-4%

## 3 HAZARDS IDENTIFICATION

**Hazard description (European Union)**

Irritant

Information pertaining to particular dangers for man and environment

Irritating to eyes, skin and respiratory tract.

**National Fire Protection Association (NFPA ratings scale 0-4)**

Health = 0

Fire = 0

Reactivity = 0

## 4 FIRST AID MEASURES

**Eye:** Flush with water in an eyewash for at least 15 minutes, holding eyelids open. Remove contact lenses, clean before re-use. Obtain medical attention if symptoms develop (redness, itching, etc.).

**Skin:** Wash with plenty of soap and water. Obtain medical attention if symptoms develop (redness, itching, etc.). Remove contaminated clothes, wash before re-use.

**Inhalation:** Remove person to fresh air. Obtain medical attention unless effects are mild and temporary.

**Ingestion:** Give plenty of water, if conscious. If vomiting occurs naturally, wash mouth out. Be prepared to induce vomiting upon a physician's advice. Obtain medical attention if symptoms develop.

**Note To Physician:** Treat symptomatically.

## 5 FIRE FIGHTING MEASURES

**Flashpoint Deg C:** Not available.

**Upper Flammable Limit %:** Not available.

**Lower Flammable Limit %:** Not available.

**Autoignition Temperature Deg C:** Not available.

**Extinguishing Media:** Use means appropriate for surrounding materials.

# Material Safety Data Sheet

**Firefighting Techniques/Equipment:** Standard turnout gear ("bunker gear"). Positive-pressure self-contained breathing apparatus.

**Hazardous Combustion Products:** Includes carbon dioxide, carbon monoxide, dense smoke.

## 6 ACCIDENTAL RELEASE MEASURES

Accidental releases may be subject to special reporting requirements and other regulatory mandates. Refer to Section 8 for personal protection equipment recommendations.

**Spill Cleanup:** Absorb spill. Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.

## 7 HANDLING AND STORAGE

Storage of some materials is regulated by federal, state, and/or local laws.

**Handling Procedures:** Keep closed or covered when not in use.

**Storage Procedures:** Suitable for most general chemical storage areas.

## 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

**Exposure Limits:** No hazardous components

**Engineering Controls:** Area ventilation is generally adequate.

**Personal Protective Equipment:**

**Skin:** Gloves should be used as minimum hand protection.

**Respiratory:** No respiratory protection will be needed under normal industrial operating conditions.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

**Appearance/physical state:** Clear, colorless liquid.

**Odor:** No odor.

**Melting point/Melting range:** no data available

**Boiling point/Boiling range:** 100 °C (212 °F).

**Flash point:** Not applicable

**Auto igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density at 20°C (68°F):** Undetermined.

**Solubility in / Miscibility with Water:** Fully miscible

## 10 STABILITY AND REACTIVITY

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** No dangerous reactions known.

**Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 TOXICOLOGICAL INFORMATION

**Acute toxicity:**

**Primary irritant effect on the skin:** Irritant to skin and mucous membranes.

**on the eye:** Irritating effect.

**Sensitization:** Sensitization possible through inhalation and skin contact.

**Additional toxicological information:** Irritant, harmful.

## 12 Ecological Information

# Material Safety Data Sheet

## General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13 DISPOSAL CONSIDERATIONS

**Water Disposal:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

## 14 TRANSPORT INFORMATION

RID/ADR: Non-hazardous for road transport.

IMDG: Non-hazardous for sea transport.

IATA: Non-hazardous for air transport.

## 15 REGULATORY INFORMATION

### **SARA (Superfund Amendment and Reauthorization Act):**

Section 313(Specific toxic chemical listings):

None of the ingredients is listed.

### **TSCA (Toxic Substance Control Act):**

All ingredients are listed.

Proposition 65

### **Chemicals known to cause cancer:**

None of the ingredients is listed.

### **Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

### **Carcinogenicity categories**

### **EPA (Environmental Protection Agency):**

None of the ingredients is listed.

### **IARC (International Agency for Research on Cancer):**

None of the ingredients is listed.

### **NTP (National Toxicology Program):**

None of the ingredients is listed.

### **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients is listed.

### **MAK (German Maximum Workplace Concentration):**

None of the ingredients is listed.

### **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients is listed.

### **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients is listed.

**Product related hazard informations:** The product has been classified and marked in accordance with directives on hazardous materials.

### **Hazard designation of product:**

Harmful

### **Risk phrases:**

May cause sensitization by inhalation and skin contact.

### **Safety phrases:**

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice. Wear suitable protective clothing and gloves.

# Material Safety Data Sheet

## National regulations

**Water hazard class: Water hazard class 1 (Self-assessment):**  
slightly hazardous for water.

## 16 OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.