

# Mallinckrodt

## Material Safety Data

Emergency Phone Number: 314-982-5000

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Mallinckrodt, Inc., Science Products Division, P.O. Box M, Paris, KY 40361.

### TRIS(HYDROXYMETHYL)AMINOMETHANE

#### PRODUCT IDENTIFICATION:

Synonyms: 2-Amino-2-(hydroxymethyl)-1,3-propanediol; THAM; Tris

Formula CAS No.: 77-86-1

Molecular Weight: 121.14

Chemical Formula:  $H_2NC(CH_2OH)_3$

Hazardous Ingredients: Not applicable.

#### PRECAUTIONARY MEASURES

**WARNING! HARMFUL IF SWALLOWED. CAUSES IRRITATION.**

Avoid contact with eyes, skin and clothing.  
Wash thoroughly after handling.

#### EMERGENCY/FIRST AID

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. In all cases call a physician.  
SEE SECTION 5.

DOT Hazard Class: Not Regulated

#### SECTION 1 Physical Data

Appearance: Transparent, colorless crystals.

Odor: Odorless.

Solubility: 5.5 g/l ml water @ 25°C (77°F)

Boiling Point: 219-220°C (426-428°F)

Melting Point: 171-172°C (340-342°F)

Density: No information found.

Vapor Density (Air=1): No information found.

Vapor Pressure (mm Hg): No information found.

Evaporation Rate: No information found.

#### SECTION 2 Fire and Explosion Information

##### **Fire:**

As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. Slight fire hazard when exposed to heat or flame.

##### **Explosion:**

Not considered to be an explosion hazard.

##### **Fire Extinguishing Media:**

Water spray, dry chemical, alcohol foam, or carbon dioxide.

##### **Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

#### SECTION 3 Reactivity Data

##### **Stability:**

Stable under ordinary conditions of use and storage.

##### **Hazardous Decomposition Products:**

Oxides of nitrogen and carbon.

##### **Hazardous Polymerization:**

This substance does not polymerize.

##### **Incompatibilities:**

Copper, brass, aluminum, and oxidizing agents.

#### SECTION 4 Leak/Spill Disposal Information

Ventilate the area of the leak or spill. Remove all sources of ignition. Sweep up and place in a bag and hold for waste disposal. Avoid raising dust. Dissolve or mix the material with a combustible solvent and burn in a RCRA approved chemical incinerator equipped with an afterburner and scrubber. Collected waste may be transferred to a closed, preferably metal, container and sent to an approved waste disposal facility.

Ensure compliance with local, state and federal regulations.

**SECTION 5 Health Hazard Information**

**A. EXPOSURE / HEALTH EFFECTS**

**Inhalation:**

May cause irritation to the mucous membranes.

**Ingestion:**

Mild alkali. May cause irritation and reddening to the mucous membranes of the mouth, esophagus, and gastrointestinal tract. Large oral doses may cause weakness, collapse, and coma. Estimated lethal dose: 50 grams.

**Skin Contact:**

May cause irritation, redness, and pain.

**Eye Contact:**

May cause irritation, redness, pain, and corneal damage.

**Chronic Exposure:**

Chronic dermatitis may follow skin contact.

**Aggravation of Pre-existing Conditions:**

No information found.

**B. FIRST AID**

**Inhalation:**

Remove to fresh air. Get medical attention for any breathing difficulty.

**Ingestion:**

If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Call a physician immediately. Never give anything by mouth to an unconscious person.

**Skin Exposure:**

Remove any contaminated clothing. Wash skin with plenty of water for at least 15 minutes. If irritation develops, get medical attention.

**Eye Exposure:**

Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**C. TOXICITY DATA** (RTECS, 1982)

Oral rat LD50: 5900 mg/kg

**SECTION 6 Occupational Control Measures**

**Airborne Exposure Limits:**

None established.

**Ventilation System:**

A local exhaust system which captures the contaminant at its source is recommended to prevent dispersion of the contaminant into the workroom air.

**Personal Respirators: (NIOSH Approved)**

For conditions of use where exposure to the dust is apparent, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

**Skin Protection:**

Wear protective gloves and clean body-covering clothing.

**Eye Protection:**

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

**SECTION 7 Storage and Special Information**

Keep in a tightly closed container. Store in a cool, dry, ventilated area away from sources of heat or ignition. Protect against physical damage. Isolate from oxidizing materials.

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TRISH