

## TRIETHANOLAMINE 85%

### SECTION 1: PRODUCT IDENTIFICATION

**Product Name:** TRIETHANOLAMINE 85%

**Product Code:** 2354

**CAS#:** 102-71-6

**CI#:** Not available

**Synonym:** Daltogen; Triethylolamine; Tris (beta-hydroxyethyl)amine; N,N,N-Triethanolamine; 2,2',2''-Nitrilotriethanol.

**Chemical Name:** Triethanolamine 85 %

**Chemical Formula:** C<sub>6</sub>H<sub>15</sub>NO<sub>3</sub>

**Formula Weight:** 149.19

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

**Composition:** 2,2',2''-Nitrilotriethanol maximum 85%(w/w) and 2,2'-iminodiethanol minimum 15%.

**Name:** TRIETHANOLAMINE 85%

**Toxicological Data on Ingredients:** Not available

### SECTION 3: HAZARDS IDENTIFICATION

**Potential Acute Health Effects:** Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008. This substance is not classified as dangerous according to Directive 67/548/EEC.

**Potential Chronic Health Effects:**

**CARCINOGENIC EFFECTS:** Not available

**MUTAGENIC EFFECTS:** Not available

**TERATOGENIC EFFECTS:** Not available

**DEVELOPMENTAL TOXICITY:** Not available Repeated or prolonged exposure is not known to aggravate medical condition.

### SECTION 4: FIRST AID MEASURES

**Eye Contact:** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. WARM water MUST be used. Get medical attention if irritation occurs.

**Skin Contact:** Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

**Serious Skin Contact:** Not available.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available

### SECTION 5: FIRE FIGHTING MEASURES

**Flammability of the Product:** May be combustible at high temperature

**Auto-Ignition Temperature:** Not available

**Flash Points:** Not available

**Flammable Limits:** Not available



**Products of Combustion:** Carbon oxides, nitrogen oxides (NOx)

**Fire Hazards in Presence of Various Substances:** Slightly flammable to flammable in presence of heat.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available Slightly explosive in presence of open flames and sparks.

**Fire Fighting Media and Instructions:**

**SMALL FIRE:** Use DRY chemical powder

**LARGE FIRE:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special Remarks on Fire Hazards:** As with most organic solids, fire is possible at elevated temperatures

**Special Remarks on Explosion Hazards:** Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Small Spill:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements

**Large Spill:** Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system..

## SECTION 7: HANDLING AND STORAGE

**Precautions:** Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk; evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Keep away from incompatibles such as oxidizing agents.

**Storage:** Store in cool, dry place in closed containers

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses, Lab coat, Dust respirator, Gloves. Be sure to use an approved/certified respirator or equivalent.

**Personal Protection in Case of a Large Spill:** Splash goggles, Full suit, Dust respirator, Boots, Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state and appearance Form</b>	: Colourless viscous liquid
<b>Odour</b>	: Not available
<b>Taste</b>	: Not available
<b>Molecular Weight</b>	: 149.19
<b>Colour</b>	: Not available
<b>pH</b>	: 10.5 – 11.5 at 149 g/l at 25 °C
<b>Boiling Point</b>	: 100 °C (212 ° F) at 760mmHg
<b>Melting Point</b>	: - 5°C (23.0 ° F)
<b>Critical Temperature</b>	: Not available
<b>Specific Gravity</b>	: 1.124
<b>Vapor Pressure</b>	: Not Available
<b>Vapor Density</b>	: 5.15 - (Air = 1.0)
<b>Volatility</b>	: Not Available



Odor Threshold	: Not Available
Water/Oil Dist. Coeff.	: Not Available
Ionicity (in Water)	: Not Available
Dispersion Properties	: Not Available
Solubility	: 149 g/l at 20 °C - completely soluble

#### SECTION 10: STABILITY AND REACTIVITY DATA

**Stability:** The product is stable  
**Instability Temperature:** Not available  
**Conditions of Instability:** Excess heat, dust generation  
**Incompatibility with various substances:** Reactive with oxidizing agents  
**Corrosivity:** Not available  
**Special Remarks on Reactivity:** Not available  
**Special Remarks on Corrosivity:** Not available  
**Polymerization:** Will not occur

#### SECTION 11: TOXICOLOGICAL INFORMATION

**Routes of Entry:** Inhalation, Ingestion  
**Toxicity to Animals:**  
**LD50:** LD50 Oral - mouse - 5.846 mg/kg  
**LC50:** LC50 - Lepomis macrochirus (Bluegill) - 450 - 1.000 mg/l - 96 h  
**Chronic Effects on Humans:** Not available  
**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation  
**Special Remarks on Toxicity to Animals:** Not available  
Special Remarks on Chronic Effects on Humans: Not available  
Special Remarks on other Toxic Effects on Humans: Not available

#### SECTION 12: ECOLOGICAL INFORMATION

**Eco toxicity:** Not available  
**BOD5 and COD:** Not available.  
**Products of Biodegradation:** Possibly hazardous short-term degradation products are not likely. However, long-term degradation products may arise.  
**Toxicity of the Products of Biodegradation:** Not available  
**Special Remarks on the Products of Biodegradation:** Not available

#### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations

#### SECTION 14: TRANSPORT INFORMATION

**DOT Classification:** Not a DOT controlled material (United States).  
**Identification:** Not applicable  
**Special Provisions for Transport:** Not applicable

#### SECTION 15: OTHER REGULATORY INFORMATION

**Federal and State Regulations:** Not available  
**Other Regulations:** Not available



**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada)

**DSCL (EEC):**

This product is not classified according to the EU regulations. Not applicable

**HMIS (U.S.A.):**

**Health Hazard:** 2

**Fire Hazard:** 1

**Reactivity:** 1

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):** Not available

**Health:** 2

**Flammability:** 1

**Reactivity:** 1

**Specific hazard:**

**Protective Equipment:** Gloves, Lab coat, Safety glasses, Dust respirator - be sure to use an approved/certified respirator or equivalent

**SECTION 16: OTHER INFORMATION**

**References:** Not Applicable

**Other Special Considerations:** Not available

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