

Common Name: **TRIETHYLAMINE**

Synonyms: (Diethylamino)Ethane; TEA

CAS No: 121-44-8

Molecular Formula: C₆H₁₅N

RTK Substance No: 1907

Description: Clear, colorless liquid with an *Ammonia* or fish-like odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<p>3 - Health</p> <p>3 - Fire</p> <p>0 - Reactivity</p> <p>DOT#: UN 1296</p> <p>ERG Guide #: 132</p> <p>Hazard Class: 3 (Flammable)</p>	<p>FLAMMABLE LIQUID Use dry chemical, CO₂, water spray or alcohol-resistant foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE, including Nitrogen Oxides. CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. Vapor is heavier than air and may travel a distance to cause a fire or explosion far from the source. Triethylamine may form an ignitable vapor/air mixture in closed tanks or containers.</p>	<p>Triethylamine is a strong base which may react violently with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC) and OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE).</p> <p>Triethylamine reacts with REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES) to form flammable and explosive <i>Hydrogen gas</i>.</p> <p>Triethylamine is not compatible with ISOCYANATES; EPOXIDES; PHENOLS; and ACID HALIDES (such as TRICHLOROACETIC ACID).</p> <p>Triethylamine can form toxic <i>N-Nitrosoamines</i> when in contact with NITRIC ACID, NITRATES or atmospheres with high NITROUS OXIDE concentrations.</p> <p>Triethylamine is CORROSIVE to ALUMINUM, COPPER and ZINC and their ALLOYS in the presence of MOISTURE.</p>

SPILL/LEAKS

Isolation Distance:

Spill:

Fire: 800 meters (1/2 mile)

Absorb liquids in dry sand, earth, or a similar material and place into sealed containers for disposal.

DO NOT wash into sewer.

Use only non-sparking tools and equipment, especially when opening and closing containers of **Triethylamine**.

Triethylamine is harmful to aquatic organisms.

PHYSICAL PROPERTIES

Odor Threshold:	0.1 to 0.48 ppm
Flash Point:	16°F (-9°C)
LEL:	1.2%
UEL:	8%
Auto Ignition Temp:	480°F (249°C)
Vapor Density:	3.5 (air = 1)
Vapor Pressure:	54 mm Hg at 68°F (20°C)
Specific Gravity:	0.73 (water = 1)
Water Solubility:	Very slightly soluble
Boiling Point:	193°F (89°C)
Freezing Point:	-175°F (-115°C)
Ionization Potential:	7.5 eV
Molecular Weight:	101.2

EXPOSURE LIMITS

ACGIH: 1 ppm, 8-hr TWA; 3 ppm STEL

IDLH: 200 ppm

The Protective Action Criteria values are:

PAC-1 = 3 ppm PAC-2 = 3 ppm PAC-3 = 200 ppm

PROTECTIVE EQUIPMENT

Gloves:	Nitrile, Polyvinyl Alcohol, Viton and Barrier® (>8-hr breakthrough)
Coveralls:	Tychem® fabrics; Trelchem® HPS and VPS (>8-hr breakthrough)
Respirator:	>1 ppm - SCBA

HEALTH EFFECTS

Eyes:	Irritation and burns
Skin:	Irritation and burns
Inhalation:	Nose, throat and lung irritation with coughing and severe shortness of breath (pulmonary edema)

FIRST AID AND DECONTAMINATION

Remove the person from exposure.
Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention.
Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water.
Begin artificial respiration if breathing has stopped and CPR if necessary.
Transfer promptly to a medical facility.
Medical observation is recommended as symptoms may be delayed.