

MATERIAL SAFETY DATA SHEET
Triethylamine

Section 1 - Chemical Product and Company Identification

MSDS Name:	Triethylamine
Catalog Numbers:	15791-0000, 15791-0010, 15791-0025, 15791-0050, 15791-1000, 21951-0000, 21951-0050, 21951-0500
Synonyms:	TETN
Company Identification:	Acros Organics BVBA Janssen Pharmaceuticaaan 3a 2440 Geel, Belgium
Company Identification: (USA)	Acros Organics One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	800-ACROS-01
For information in Europe, call:	+32 14 57 52 11
Emergency Number, Europe:	+32 14 57 52 99
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300
CHEMTREC Phone Number, Europe:	703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
121-44-8	Triethylamine	>99%	204-469-4

Hazard Symbols: F C



Risk Phrases: 11 20/21/22 35

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Highly flammable. Harmful by inhalation, in contact with skin and if swallowed. Causes severe burns.

Potential Health Effects

Eye: Causes severe eye burns.

Skin: Harmful if absorbed through the skin. Causes skin burns.

Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.

Inhalation: Harmful if inhaled. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract.

Chronic: Prolonged or repeated skin contact may cause dermatitis.

Section 4 - First Aid Measures

Eyes:	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin:	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion:	Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.
Inhalation:	Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Notes to Physician:	Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Combustion generates toxic fumes. Will burn if involved in a fire. Flammable liquid and vapor.
Extinguishing Media:	Use water spray to cool fire-exposed containers. Use foam, dry chemical, or carbon dioxide. If water is the only media available, use in flooding amounts.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Do not let this chemical enter the environment.

Section 7 - Handling and Storage

Handling:	Use spark-proof tools and explosion proof equipment. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Take precautionary measures against static discharges. Do not ingest or inhale. Use only in a chemical fume hood.
Storage:	Keep away from sources of ignition. Store in a cool, dry place. Keep container closed when not in use. Flammables-area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

CAS# 121-44-8:

United Kingdom, WEL - TWA: 2 ppm TWA; 8 mg/m³ TWA United Kingdom, WEL - STEL: 4 ppm STEL; 17 mg/m³ STEL

United States OSHA: 25 ppm TWA; 100 mg/m³ TWA

Belgium - TWA: 1 ppm VLE; 4.2 mg/m³ VLE Belgium - STEL: 3 ppm VLE; 12.6 mg/m³ VLE

France - VME: 2 ppm VME; 8.4 mg/m³ VME France - VLE: 3 ppm VLE; 12.6 mg/m³ VLE

Germany: 1 ppm TWA; 4.2 mg/m³ TWA Germany: skin notation

Malaysia: 1 ppm TWA; 4.1 mg/m³ TWA

Netherlands: 10 ppm STEL; 40 mg/m³ STEL Netherlands: 5 ppm MAC; 20 mg/m³ MAC

Spain: 2 ppm VLA-ED; 8.4 mg/m³ VLA-ED Spain: 3 ppm VLA-EC; 12.6 mg/m³ VLA-EC

Personal Protective Equipment

Eyes: Wear chemical splash goggles.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: colorless

Odor: ammonia-like

pH: Not available

Vapor Pressure: 69mbar @20 deg C

Viscosity: 0.36 mPa.s @20 deg C

Boiling Point: 90 deg C @760mmHg (194.00°F)

Freezing/Melting Point: -115 deg C (-175.00°F)

Autoignition Temperature: 215 deg C (419.00 deg F)

Flash Point: -11 deg C (12.20 deg F)

Explosion Limits: Lower: 1.6 Vol %

Explosion Limits: Upper: 9.3 Vol %

Decomposition Temperature: Not available

Solubility in water: 133 g/l (20°C)

Specific Gravity/Density: 0.728

Molecular Formula: C6H15N

Molecular Weight: 101.19

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, temperatures above 220°C.

Incompatibilities with Other Materials Strong oxidizing agents, oxidizing agents, acids, dinitrogen tetraoxide.

Hazardous Decomposition Products Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 121-44-8: YE0175000

LD50/LC50: RTECS:
CAS# 121-44-8: Inhalation, mouse: LC50 = 6 gm/m³;
Oral, mouse: LD50 = 546 mg/kg;
Oral, rat: LD50 = 460 mg/kg;
Skin, rabbit: LD50 = 570 uL/kg;

Carcinogenicity: Triethylamine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: Mutagenicity: Ames-test: negative. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Ecotoxicity: Fish: Pimephals prome: LC50: 43.7 mg/L; 96h; .

Daphnia: Daphnia: EC50: 200 mg/L; 48h; .
Bacteria: Pseudomonas putida: EC50: 95 mg/L; 17h; .

Other: Do not empty into drains. Biodegradable.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	TRIETHYLAMINE	TRIETHYLAMINE	TRIETHYLAMINE
Hazard Class:	3 (8)	3 (8)	3 (8)
UN Number:	1296	1296	1296
Packing Group:	II	II	II

USA RQ: CAS# 121-44-8: 5000 lb final RQ; 2270 kg final RQ

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: F C

Risk Phrases:

R 11 Highly flammable.

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 35 Causes severe burns.

Safety Phrases:

S 3 Keep in a cool place.

S 16 Keep away from sources of ignition - No smoking.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 29 Do not empty into drains.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 121-44-8: 1

Canada

CAS# 121-44-8 is listed on Canada's DSL List

US Federal

TSCA

CAS# 121-44-8 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 7/16/1996

Revision #1 Date 6/06/2005

Revisions were made in Sections: General revision.

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