



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

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MSDS No. TT 245
Effective Date May 24, 1999

SECTION V HEALTH HAZARD DATA

TT 245

Threshold Limited Value

ACGIH 1992-93: TWA: 10 ppm. 41 mg/m³; STEL: 15 ppm, 62 mg/m³.
Oral-rat LD50: 460 mg/kg.; Dermal-rabbit LD50: 570 mg/kg.,
Inhalation-rat LD50: 1000 ppm/4 hrs.

Effects of Overexposure

Target organs affected: Eyes, skin, respiratory system. Triethylamine is highly toxic by excessive inhalation and ingestion. It is a strong irritant and/or corrosive to all tissue it may contact. Vapors are severely irritating to the eyes and the upper respiratory tract and mucous membranes. Coughing, choking and difficulty in breathing can result from breathing vapors. Liquid contact with the eyes can cause severe burns. It can burn skin.

Emergency and First Aid Procedures

SKIN: Flush with water for at least 15 minutes. Remove contaminated clothing. Get medical aid immediately. **EYES:** Flush thoroughly with water for 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **INGESTION:** If swallowed, **DO NOT INDUCE VOMITING.** If conscious, give water or milk to drink. Get medical attention. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

Stability	Unstable	Stable	Conditions to Avoid
		X	Excessive temperature, heat, sunlight.

Incompatibility (Materials to Avoid)	Strong oxidizing materials, strong acids.
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Hazardous Decomposition Products	Thermal decomposition products include, oxides of Nitrogen, carbon monoxide, carbon dioxide.
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Hazardous Polymerization	Conditions to Avoid
May Occur	Will Not Occur
	X
	Not applicable.

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Provide adequate ventilation and safety equipment. Eliminate ignition sources. Sprinkle sodium bisulfate over small spills and residues to neutralize, flush to sewer with plenty of water.
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Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.
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Waste material can be burned in an incinerator equipped with a scrubber to remove nitrogen oxides from combustion products.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)	In the laboratory, work in a ventilation hood. A NIOSH/MSHA-approved self-contained or air supplied respirator should be available for emergency and non-routine use.
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Ventilation	Local Exhaust	Recommended.	Special	No.
	Mechanical (General)	Recommended.	Other	Adequate to maintain below exposure level.

Protective Gloves	Rubber.	Eye Protection	Chemical safety glasses.
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Other Protective Equipment	Goggles, lab coat, apron, ventilation hood, proper gloves, fire extinguisher.
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SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	This is a stable material at room temperature under normal storage conditions in sealed containers. Store in tightly closed containers in a well-ventilated area, away from direct sunlight, source of heat, sources of ignition and oxidizing materials. Wash thoroughly after handling.
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Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals.
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Triethylamine is a strong alkaline. It will undergo a strong exothermic reaction with acids to form amine salts. Prevent contact with eyes, skin and clothing. Do not breathe mist, vapor or gas. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 3	Date	5/24/99	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	Triethylamine
Chemical Synonyms	N,N-Diethyl Ethanolamine
Formula	(C ₂ H ₅) ₃ N
Unit Size	up to 20 Lt.
C.A.S. No.	121-44-8

3
2
0

CHMTREC
800-424-9300
Day 716-226-6177

NFPA
HAZARD RATING

LEAST SLIGHT MODERATE
0 1 2

Health
Fire
Reactivity

2
3
1

HMIS *

HIGH EXTREME
3 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Triethylamine	min. 99.5%	See section V
DANGER! EXTREMELY FLAMMABLE. CORROSIVE. Causes severe burns.		
Harmful if swallowed, inhaled, or absorbed through skin.		

SECTION III PHYSICAL DATA

Melting Point (°F)	-115°C (175°F)	Specific Gravity (H ₂ O = 1)	0.726-0.730 @ 20/20°C
Boiling Point (°F)	85-91°C (185-195°F)	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	52 mm @ 20°C (68°F)	Evaporation Rate (n-Butyl acetate =1)	5.6
Vapor Density (Air=1)	3.5		
Solubility in Water	5.5 Weight % @ 20°C (68°F); Miscible below 18.7°C (65°F)		
Appearance & Odor	Clear, colorless liquid; strong ammonia-like odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	-5.56°C (22°F) TCC	Flammable Limits in Air % by Volume	Lower 1.2%	Upper 8.0%
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Extinguisher Media	Dry chemical, carbon dioxide (CO ₂) or foam.
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SPECIAL FIREFIGHTING PROCEDURES

Water will reduce flame intensely but may be ineffective for extinguishing fire, but should be used to cool fire-exposed containers; to dilute spills (to non-flammable levels); to flush spills and to disperse vapors. Firefighters must use NIOSH/MSHA-approved self-contained breathing equipment and full face protection when fighting fires in which this material is involved. Fight fire from a protected location.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire hazard: Dangerous when exposed to heat or flame. Heavier-than-air vapor may flow along floors or surfaces to a distant ignition source and then flash back. It is a dangerous fire hazard when heated.
Explosion hazard: Unknown.
Highly dangerous; keep away from heat or open flame; can react with oxidizing materials.
Auto-ignition temperature: 377°C (711°F).

D.O.T. Triethylamine, 3, UN 1296, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20