

**MATERIAL SAFETY DATA SHEET****Diethylamine**

<b>MSDS Name:</b>	Diethylamine
<b>Synonyms:</b>	
<b>Company Identification:</b>	Hazel Mercantile Limited
<b>Company Identification: (INDIA)</b>	701, Embassy Centre , Nariman Point , Mumbai – 400 021
<b>For information in the INDIA, call:</b>	+91-22-2282 4444 (50 Lines)

**Section 2 - Composition, Information on Ingredients**

CAS#	Chemical Name:	%	EINECS#
109-89-7	Diethylamine	99%	203-716-3

<b>Hazard Symbols:</b>	F C
	
<b>Risk Phrases:</b>	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**

<b>Eye:</b>	Causes severe eye burns. Causes eye burns.
<b>Skin:</b>	Harmful if absorbed through the skin. Causes skin burns.
<b>Ingestion:</b>	Harmful if swallowed. Causes gastrointestinal tract burns.
<b>Inhalation:</b>	Harmful if inhaled. Causes chemical burns to the respiratory tract.
<b>Chronic:</b>	

**Section 4 - First Aid Measures**

<b>Eyes:</b>	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
<b>Skin:</b>	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
<b>Ingestion:</b>	Do not induce vomiting. Get medical aid immediately. Wash mouth out with water.
<b>Inhalation:</b>	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.
<b>Notes to Physician:</b>	Treat symptomatically and supportively.



### Section 5 - Fire Fighting Measures

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable liquid and vapor.
<b>Extinguishing Media:</b>	Use foam, dry chemical, or carbon dioxide.

### Section 6 - Accidental Release Measures

<b>General Information:</b>	Use proper personal protective equipment as indicated in Section 8.
<b>Spills/Leaks:</b>	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.

### Section 7 - Handling and Storage

<b>Handling:</b>	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. Use only in a chemical fume hood.
<b>Storage:</b>	Keep away from sources of ignition. Store in a cool, dry place. Store in a tightly closed container. Flammables-area. Corrosives area.

### Section 8 - Exposure Controls, Personal Protection

<b>Engineering Controls:</b>	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.
<b>Exposure Limits</b>	CAS# 109-89-7: United Kingdom, WEL - TWA: 10 ppm TWA; 30 mg/m3 TWA United Kingdom, WEL - STEL: 25 ppm STEL; 76 mg/m3 STEL United States OSHA: 25 ppm TWA; 75 mg/m3 TWA Belgium - TWA: 5 ppm VLE; 15 mg/m3 VLE Belgium - STEL: 15 ppm VLE; 46 mg/m3 VLE France - VLE: 10 ppm VLE; 30 mg/m3 VLE Germany: 5 ppm TWA; 15 mg/m3 TWA Germany: skin notation Japan: 10 ppm OEL; 30 mg/m3 OEL Malaysia: 5 ppm TWA; 15 mg/m3 TWA Netherlands: 5 ppm MAC; 15 mg/m3 MAC Spain: 10 ppm VLA-ED; 30 mg/m3 VLA-ED Spain: 25 ppm VLA-EC; 75 mg/m3 VLA-EC

#### Personal Protective Equipment

<b>Eyes:</b>	Wear chemical splash goggles.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	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

<b>Physical State:</b>	Clear liquid
<b>Color:</b>	colorless
<b>Odor:</b>	ammonia-like
<b>pH:</b>	Not available
<b>Vapor Pressure:</b>	250mbar @20 deg C
<b>Viscosity:</b>	0.34 mPa.s @25 deg C
<b>Boiling Point:</b>	55 deg C @760mmHg ( 131.00°F)
<b>Freezing/Melting Point:</b>	-50 deg C ( -58.00°F)
<b>Autoignition Temperature:</b>	312 deg C ( 593.60 deg F)
<b>Flash Point:</b>	-23 deg C ( -9.40 deg F)
<b>Explosion Limits: Lower:</b>	1.7 Vol %
<b>Explosion Limits: Upper:</b>	10.1 Vol %
<b>Decomposition Temperature:</b>	Not available
<b>Solubility in water:</b>	Soluble
<b>Specific Gravity/Density:</b>	0.705 g/cc
<b>Molecular Formula:</b>	C4H11N
<b>Molecular Weight:</b>	73.13

## Section 10 - Stability and Reactivity

<b>Chemical Stability:</b>	Not available
<b>Conditions to Avoid:</b>	Incompatible materials, ignition sources.
<b>Incompatibilities with Other Materials</b>	Strong oxidizing agents, strong oxidizing agents, acids.
<b>Hazardous Decomposition Products</b>	Nitrogen oxides, carbon monoxide, carbon dioxide.
<b>Hazardous Polymerization</b>	Has not been reported.

## Section 11 - Toxicological Information

<b>RTECS#:</b>	CAS# 109-89-7: HZ8750000
<b>LD50/LC50:</b>	RTECS: <b>CAS# 109-89-7:</b> Inhalation, rat: LC50 = 4000 ppm/4H; Oral, mouse: LD50 = 500 mg/kg; Oral, rat: LD50 = 540 mg/kg; Skin, rabbit: LD50 = 820 microL/kg;
<b>Carcinogenicity:</b>	Diethylamine - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
<b>Other:</b>	See actual entry in RTECS for complete information. Mutagenicity: Ames-test: negative.

## Section 12 - Ecological Information

<b>Ecotoxicity:</b>	Fish: Rainbow trout: LC50: 25-182 mg/L; 96h; Daphnia: Daphnia: EC50: 56 mg/L; 48h; Algae: EC50: 56 mg/L; 96h; Bacteria: EC50: 47 mg/L; 17h;
<b>Other:</b>	Readily biodegradable. Log Pow: 0.5



### 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:	DIETHYLAMINE	DIETHYLAMINE	DIETHYLAMINE
Hazard Class:	3 (8)	3 (8)	3 (8)
UN Number:	1154	1154	1154
Packing Group:	II	II	II

USA RQ: CAS# 109-89-7: 100 lb final RQ; 45.4 kg final RQ

### Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: F C
<b>Risk Phrases:</b>
➤ R 11 Highly flammable.
➤ R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
➤ R 35 Causes severe burns.
<b>Safety Phrases:</b>
➤ 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).
<b>WGK (Water Danger/Protection)</b>
➤ CAS# 109-89-7: 1
Canada
➤ CAS# 109-89-7 is listed on Canada's DSL List
<b>US Federal</b>
➤ TSCA
➤ CAS# 109-89-7 is listed on the TSCA Inventory.

### Section 16 - Other Information

MSDS Creation Date:	September 12, 2007
Revision #0 Date	

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