

Camlab Limited – Material Safety Data Sheet

1. Identification


Product Code CC/1715-DA

Product Name **DIETHYLAMINE pure**

Molecular Formula **(C₂H₅)₂NH =73.14**

CAS Number 109-89-7

Supplier: **CAMLAB LIMITED**



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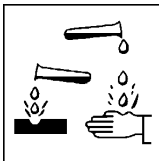
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(Have this document to hand)

2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Diethylamine	109-89-7	203-716-3	> 99.0%	F C : R11,R20/21/22,R35	WEL

3. Hazards Identification



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

4. First Aid Measures

Eyes Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.

Skin Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION.

Inhalation Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. Vapour-air mixtures are explosive. Vapours may flow along surfaces to distant ignition sources and flash back.

Extinguishing Media Alcohol resistant foam, dry powder, carbon dioxide or vaporising liquid. Use water spray to keep fire exposed containers cool.

Unsuitable Media Do not use water jet.

6. Accidental Release Measures

Personal Protection	Ensure no sources of ignition. Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : vapour is heavier than air and will tend to accumulate at low spots.
Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

8.1 Workplace Exposure Limits

Workplace Exposure Limits	Long Term (8hr TWA):	10.00 ppm	30.00 mg m-3
	Short Term (15min Period):	25.00 ppm	76.00 mg m-3

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hands	Use solvent resistant gloves.
Eyes	Use chemical full face shield.
Skin	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Clear colourless liquid.
Odour	Characteristic amine odour.
pH	Not available
Boiling point	55.5 °C
Melting point	49.8- °C
Flash point	39.0- °C(Closed cup)
Upper Flammable Limit	10.1 %
Lower Flammable Limit	1.8 %
Auto Ignition	310.0 °C
Explosive properties	Moderate/severe in confined spaces.
Oxidising Properties	No.
Vapour Pressure	195 mm/Hg
Relative Density	0.7049
Water Solubility	Completely miscible in water.

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
Materials to Avoid	Acids. Strong oxidising agents.

10. Stability & Reactivity (continued)

Hazardous Burning will produce toxic fumes of NO_x, carbon monoxide and/or carbon dioxide.
Decomposition Products

11. Toxicological Information

Eyes Both the vapour and liquid will, be irritating to the eyes.

Skin Both the vapour and liquid will, be irritating to the skin.

LD50 Skin Rabbit 820 mg/kg

Ingest Ingestion of large amounts will cause Causes severe corrosion of the mouth, throat and gastro-intestinal tract.

LD50 Ingest oral Rat 540 mg/Kg

Inhalation High concentrations of vapour will produce irritation of the eyes, nose, throat and respiratory tract.

Carcinogenicity Not considered to be a carcinogen.

Mutagenicity Not considered to be a mutagen.

Reproductive Effects None identified.

Other Information Air odour threshold is 0.3 ppm.

12. Ecological

A problem material due to it's intense odour. However it is readily biodegraded in the environment.

13. Disposal Considerations

Disposal Methods Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.

Contaminated Packaging Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion.

14. Transport Information

Proper Shipping Name Diethylamine
UN Number 1154
UN Classification 3 Flammable liquid
Subsidiary Risk 8 Corrosive
Flash Point 39.0- °C(Closed cup)
Packing Group II
Transport Category 2
Marine pollutant No
ADR Hazard ID 338



15. Regulatory Information

Labelling Highly Flammable, Corrosive.
Classification

Label Symbols

F



C



15. Regulatory Information (continued)36/37/39,S45

Risk & safety Phrases	Highly flammable. Harmful by inhalation, in contact with skin and if swallowed. Causes severe burns. Keep locked up and out of reach of children. Keep in a cool place. Keep away from sources of ignition - No Smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Do not empty in to drains. Wear suitable protective clothing,gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label).
EEC Number	203-716-3

16. Other Information

Document Information	<p>This document has been prepared in accordance with directive 88/379/EEC.</p> <p>The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.</p> <p>Revision Date: 10/06/05. Data reviewed and PDF file generated: 19/07/07. Copyright 2007 Camlab Limited.</p>
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