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## **DIMETHYLAMINE (DMA)**

CAS NO. 124-40-3

NATURE It is available as Anhydrous (liquified gas under

pressure) & 40%, 50% & 60% solutions (Clear,

Colourless Liquid)

PHYSICAL PROPERTIES : (FOR ANHYDROUS)

**Empirical Formula** C,H,N Structural Formula (CH<sub>3</sub>)<sub>2</sub>NH

Molecular Wt. 45.08 Refractive Index 1.347 Colour (APHA) Max. 15 Solubility in Water Soluble

**Autoignition Temperature** 

Flammability Limits

LEL 2.8 vol%

402°C

HEL 14.4 vol%

Critical Temperature 164.6°C

Critical Pressure 51.7 Atm

	For	Anhydr.	For 4	10% soln.
Sp. Gravity at 25°C	00.649			00.892
Boiling Point	06.9°C		54.0°C	
Freezing Point	-92.2°C		-37.00°C	
Flash Point				-18.00°C
Vapour Pressure	°C	kg/cm²	°C	kg/cm <sup>2</sup>
	20	1.7	20	0.3
	40	3.5	40	0.7
	60	6.2	60	1.4

## **SPECIFICATIONS**

Content	Unit	Anhydrous	40% Solution
Purity	%	99.50 min	40.00 min
Water	%	00.20 max	59.79 max
Ammonia	%	00.02 max	00.01 max
Other Amines/NOI	%	00.50 max	00.20 max

## APPLICATION AREAS:

PHARMACEUTICALS : To manufacture Anaesthetics like Pentocaine based on Dimethyl Aminoethanol, Tranquilizers like Sparine and Local Anaesthetics like Teracaine. Used to manufacture Antihistamines like Diphenhydramine. Mepyramine Maleate (Anthisan), Chlorpheniramine, Pheniramine. DMA is

also used extensively in manufacturing of Antibacterial like Trimethoprim As a raw material to manufacture Isoproturon, one of the most effective and widely used Systemic Weedicide.

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AGRO CHEMICALS

As a raw material in manufacturing Ziram (Zinc Dimethyldithiocarbamate), Thiram (Tera methyl thirum disulphide) and Sodium or Potassium dimethyldithiocarbamate, which are effective for protection of crops from pathogenic fungi.

As and intermediate or catalytic agent to manufacture Aldicab (Temik) Systemic Insecticide to control insects. mites and nematodes. To manufacture Herbicides like 2.4-D & 2.4-5 T dimethylamine salts, urea derivatives like Diuron, Monuron, Chloroxuron and Fenuron etc.

RAYON INDUSTRY : Used as a modifier in the manufacture of Viscose Rayon Filament and Tyre

Cord, to improve the tensile strength.

As a raw material for the manufacture of powerful and versatile solvents like Dimethyl Acetamide (DMAC), Dimethyl formamide (DMF), Hexamethyl Phosphoramide used in acrylic fibre, pharmaceutical and other industries. SOLVENTS

As a raw material to manufacture Vulcanisation Accelerators such as Tetra Methyl Thiuram Disulphide (TMTDS), Zinc Dimethyldithiocarbamate, Sodium Dimethyl Dithiocarbamate and Potassium Dimethyl RUBBER CHEMICALS

Dithocarbamate.

ION EXCHANGE

Used in manufacture of water purification lon Exchange Resins like Quaternary Ammonium Salts based on Chloromethylated Styrene copolymer and Dimethylamino Ethanol.

Used in the manufacture of Acid Dyes and Silbene Dyes.

PROPELLANT As a raw material to manufacture 1,1 - Dimethyl Hydrazines.

Used to manufacture Emulsifying Agent like Dimethylaminoethanol, 2-Amino, 2-Methyl-1 Propanol, surfactant like Lauryl Dimethylamine oxide and Quaternary Ammonium compounds, which act as germicides. Anhydrous & Aqueous Solutions are offered in bulk Road Tankers, Aqeous MISC.

PACKAGING

solutions is offered in 210 litre capacity UN Approved M.S. drums containing 170 kg net DMA40% solution & 160 kg. net of DMA50% solution.

Small quantities of Anhydrous material can also be made available in

cylinders provided by by the customer on request. Anhydrous Class 2

IMDG CLASS Solution Class 3

PACKINGGROUPAS PER: Solution II

DYES

UN No. : Anhydrous 1032 Solutions 1160

**ECNUMBER** 204-697-4