Methyldiethanolamine (MDEA)

CAS Number: 105-59-9
Chemical Formula: $C_5H_{13}NO_2$

Methyldiethanolamine (MDEA) is a clear, hygroscopic liquid with a mild ammoniacal odour. It is highly miscible with water, ethanol, and acetone, and partially miscible with ether and benzene. It is widely used in gas treating applications for removal of CO_2 and H_2S, and as an intermediate in specialty chemical formulations.

KEY FEATURES

- High purity (≥ 99.5%)
- Excellent selectivity for CO_2 absorption in gas treating processes
- Low volatility and stable handling profile
- Compatible with a wide range of solvents and additives

APPLICATIONS

- Natural gas sweetening and refinery gas treatment
- Acid gas removal in synthesis gas and LNG production
- Intermediate in manufacture of surfactants, lubricants, and specialty chemicals
- Solvent and neutralising agent in various industrial processes

PRODUCT SPECIFICATIONS

Parameters (units)	Specifications
Purity (%)	≥ 99.5
Water (% by weight)	≤ 0.2
Distillation Range (°C)	240 – 260
Specific Gravity (20/20°C)	1.038 – 1.044
Colour (APHA)	≤ 50
Odour	Mildly ammoniacal

PHYSICAL PROPERTIES

Property	Value
Appearance	Clear, transparent liquid
Molecular Weight	119.2
Freezing Point (°C)	-21
Boiling Point (°C)	247.2
Flash Point (°C, COC)	135
Ignition Temperature (°C)	265
Viscosity (mPa·s)	101 at 20°C; 26 at 45°C

CHEMPORT
Specialty Chemical Experts

LIMITED WARRANTY INFORMATION.
PLEASE READ CAREFULLY.

Chemport Pty Ltd provides the information contained in this document in good faith based on the best knowledge available at the time of publication. While we believe the information to be accurate and reliable, it is intended for general guidance only and is provided without warranty of any kind, express or implied.

Users are solely responsible for determining the suitability of this product for their specific application and for ensuring compliance with all relevant regulations, industry standards, and intellectual property rights. The product must not be used in violation of any law, statute, or third-party rights.

Chemport Pty Ltd shall not be liable for any direct, indirect, or consequential loss or damage arising from the use of this product or reliance on the information provided in this document. Users should refer to the current Safety Data Sheet (SDS) and perform their own evaluations, including any necessary testing, to confirm the product's suitability for use in their particular conditions.

This document is subject to revision without notice as new data becomes available.

TECHNICAL SUPPORT
+61294103317
info@chemport.com.au

Suite 2.08
32 Delhi Road
Macquarie Park
NSW 2113
Australia

chemport.com.au

PACKAGING

- 200 kg drums
- 1000 kg IBCs
- ISO tanks (bulk, available on request)

STORAGE & HANDLING

Store in tightly sealed containers in a cool, dry, and well-ventilated area. Protect from heat, direct sunlight, and moisture. Avoid contact with strong oxidising agents.

SAFETY

Consult the Safety Data Sheet (SDS) for full handling, storage, and protective equipment guidelines. Appropriate PPE should be worn to avoid inhalation, ingestion, or contact with skin and eyes.