



# **Technical Data Sheet** Monomethylamine Anhydrous (MMA)

### **Chemical Synonym**

Methylamine; Methanamine; Aminomethane; Carbinamine; Mercurialin; Methylaminen; Metilamine; Metyloamina; MMA

### **Applications**

- Pharmaceutical chemicals
- Soil fumigants int

# **Product Description**

Monomethylamine anhydrous is a versatile building block that is used in a wide variety of applications. We produce a number of MMA derivatives like NMP, metam sodium, MMEA and MDEA.

For other applications we sell the MMA in the free market. We have identified over 70 different applications for MMA, in pharmaceuticals, agrochemicals, surfactants, explosives,...

MMA is available in 2 forms :

- as anhydrous liquified gas, MMA 100%
- as aqueous solution, MMA 40, 50 and 60%

We operate our own container fleet for MMA 100%, to guarantee a high quality service.

#### Characteristics:

Boiling point of an aqueous solution of monomethylamine, at atmospheric pressure, as a function of % by weight:





Density of aqueous solutions of monomethylamine, as a function of % by weight:



Heat of vaporization of anhydrous monomethylamine, as a function of temperature:



Specific heat of anhydrous monomethylamine, as a function of temperature: a. in the vapour state:

Density of anhydrous monomethylamine in the liquid state, as a function of temperature:



b. in the liquid state:



Vapour pressure of anhydrous monomethylamine and aqueous solutions, as a function of temperature:



## **Typical Properties**

Property	Typical Value, Units
General	
Molecular Formula	CH <sub>5</sub> N
Molecular Weight	31.06 g/mol

Boiling Point	-6.5 °C (20 °F)	
Density		
@ 25°C	0.7 g/cm <sup>3</sup>	
Heat of Vaporization	-	
@ 25°C	780 kJ/kg	
Specific Heat		
Gas (25°C)	1.56 kJ/kg·K	
Liquid (25°C)	3.29 kJ/kg·K	
Vapor Pressure		
@ 20°C (68°F)	314 kPa	

## Packaging

- Bulk Containers (2T 14T 22T)
- Bulk Railcars (20T 35T 50T))

\* Packaging in function of transport regulations of the destination country.

### Storage

Monomethylamine is an extremely flammable and corrosive product which should be stored in a well-ventilated area protected from fire risks (earthed tanks, no smoking, etc).

Delivery from containers and tankers should comply with our procedures which are available on request from our plant.

Both the gaseous product and the solutions are hazardous material. At a high airborne concentration the odour of ammonia predominates and monomethylamine acts as an asphyxiating gas.

At lower concentrations monomethylamine induces severe irritation and damage to the eyes and respiratory tract; skin contact causes burns.

The slightest leak is evident from the characteristic fishy odour, which is detectable at < 100 ppb by volume.

The storage area must be equipped with safety showers and eye baths whose locations should be familiar to the operators.

It is especially recommended that residues be burnt in an incinerator at > 800°C.

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