



# Morpholine

## **SYNONYMS:**

1-oxa-4-azacyclohexane; tetrahydro-2H-1, 4-oxazine

**CAS No:** 110-91-8

**MOLECULAR FORMULA:** C<sub>4</sub>H<sub>9</sub>NO

## **PROPERTIES:**

Morpholine is a colorless, oily, hygroscopic, volatile liquid with a characteristic amine odour. It is heavier than air and, as a result, the vapour can travel a significant distance to a source of ignition and "flash back".

Morpholine can undergo a diversity of chemical reactions. It is amino ether. The ether function of the molecule is typically inert and most of the reactions involve the secondary amine group.

## **SPECIFICATION:**

Appearance	Clear and substantially free of suspended matter
Color	15 max
Morpholine, wt%	99.0 min
Specific gravity, 20/20°C	1.001 min. – 1.004 max
Water, wt%	0.3 max

## **USAGE:**

Morpholine is a versatile chemical. It is important as a chemical intermediate in the rubber industry, as a corrosion inhibitor, and in the synthesis of optical brighteners, pharmaceutical products, crop protection agents, and dyes. Morpholine itself is a solvent for a large variety of organic materials, including resins, dyes, and waxes. It can be used as a catalyst. Morpholine is still used in some countries in toiletry and cosmetic products as a surfactant and emulsifier, at concentrations of up to 5%. It is used in some countries in several direct and indirect food additive applications.

## **PACKING**

200Kgs net Drum.