

Morpholine

Synonyms: 1-Oxa-4-azacyclohexane ; Tetrahydro-2H-1,4-oxazine

Molecular formula: C<sub>4</sub>H<sub>9</sub>NO

Molecular weight:87.12

CAS NO.: 110-91-8

EINECS 203-815-1

Molecular Structure:

Specification:

Items Index

Active content: 99%

Density : 0.999 g/ml

Melting pointMelting point : -4.9°C

Boiling point : 128°C

Flammable temperature : 310°C

Flash point : 35°C

Danger class: 8 (corrosive liquid)

Chroma (platinum-cobalt )  $\leq$  15

Boiling range°C 126-130

Applications :

Morpholine are mainly used to manufacture rubber accelerant (such as NOBS, OTOS and MDS), sulfuration agent (like DT-DM), cleanser, descaling agent, antirust, anti-scorching agent, antiseptic, surfactant, textile printing & dyeing agent, optical bleaching agent, chemical plating bath, antioxidant, hydrolyzing agent, initiator, developer, fruit preserving agent, deodorizer, brightener and organic solvents. It is widely used in many industries such as medicine, pesticide, animal medicine, petroleum and extraction of coke aromatic hydrocarbont.

In foreign countries, a great deal of morpholine is used for antirust, descaling and metal cleaning, especially for antirust and anticorrosive in high temperature conditions. In boiler maintenance fields,

amount of morpholine is also used as descaling agent. Owing to its unique chemical characters, morpholine has become one of the most important fine petroleum chemical products.