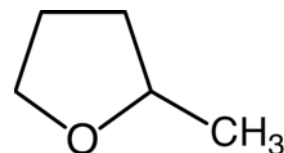


# 2-Methyltetrahydrofuran



Formula:..... C<sub>5</sub>H<sub>10</sub>O  
 Molecular Weight:..... 86.13  
 CAS Registry Number: ..... 96-47-9  
 EINECS Number:..... 202-507-4

## Applications

2-Methyltetrahydrofuran (MeTHF) is a versatile aprotic solvent that is an excellent replacement for tetrahydrofuran (THF) in Grignard and other organometallic reactions. MeTHF has a number of properties that make it a preferred solvent.

- Limited miscibility with water facilitates easy product recovery
- Can be easily dried with lower losses and lower recycle costs compared to THF
- Gives cleaner phase separations compared to processes that use solvent exchange of THF with toluene
- Especially useful for producing high concentrations of homogeneous solutions of bromo Grignard reagents
- Gives high yields of benzyl and allyl Grignard reagents
- Gives improved yields of addition product in systems where THF gives high yields of reduction product
- Permits higher reaction temperature and lower losses from reactor condensers

MeTHF has been found to be a very effective solvent for biphasic reactions, especially for reactions with aqueous NaOH such as alkylation, amidation and nucleophilic substitution reactions. MeTHF gives clean phase separations in these reactions and high reactivity.

## Contact Information

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## Health and Safety

MeTHF is a flammable liquid with a mildly irritating odor. MeTHF vapors, when mixed with air, are flammable when exposed to ignition sources. It should be handled only after consulting the material safety data sheet. If spilled, MeTHF has a CERCLA reportable quantity of 100 pounds because of its low flash point. MeTHF could carry an EPA waste code of D001 for ignitability.

## Specifications

	Value
Assay, % minimum.....	99.0
Water, ppm.....	300
Antioxidant, BHT ppm.....	150-400

## Property

	Value
Boiling Point, °C.....	80
Freezing Point, °C.....	-136
Density (20°C).....	0.855
Refractive Index (20°C).....	1.406
Latent Heat of Vaporization, cal/g.....	89.7
Flash Point (Tag. Closed Cup), °C.....	-11.1
Solubility in Water at 20°C, wt%.....	14
Solubility Water in MeTHF 20°C, wt%.....	4.4
Water Azeotrope Boiling Point, °C.....	71
wt % MeTHF.....	89.4
wt % water.....	10.6

## Availability and Shipping

The DOT HM 181 shipping name for MeTHF is methyltetrahydrofuran. It is a hazard class three (3) flammable liquid, Packing Group II material that requires a red flammable liquid label. The ID Number is UN 2536. Consult the MSDS for additional shipping information. MeTHF is available in bulk, in 55 gallon steel drums (375 lbs; 170 kg) and 5 gallon steel pails (35 lbs, 16 kg) net weights.