

# Paratene™ MF80

*“Methanol Foamer”*

## Description

Paratene™ MF80 is a blend of solvents and surfactants specifically designed to foam solutions containing up to 90% methanol. Paratene™ MF80 is compatible with other additives such as gelling agents and other surfactants that are commonly used to aid the stabilizing of methanol foams. Paratene™ MF80 was specifically created for use with fracturing fluids, oil and gas well drilling fluids, and for unloading production wells that have been treated with high amounts of methanol to control hydrates. Paratene™ MF80 is non-ionic, is freeze proofed to minus 40°C, and does not contain any fluorocarbons.

## Features and Advantages

- ❑ **Foams up to 90% aqueous methanol solutions**
- ❑ **Excellent foam quality**
- ❑ **Good Stability**
- ❑ **Very low surface tension solutions**
- ❑ **Creates non-damaging foam in well formations**
- ❑ **Freeze proofed to minus 40°C**
- ❑ **Contains no phosphates, nitrogen or sulfur compounds**

## Typical Physical Properties

<b>Appearance</b>	Clear Liquid
<b>Specific Gravity</b>	0.97
<b>Flash Point</b>	12°C
<b>pH</b>	7
<b>Freeze Point</b>	-40°C
<b>Ionic Character</b>	Nonionic

## Methods of Application

Paratene™ MF80 is added to methanol solutions at varying concentrations to produce the specific quality of foam required within the operators specific aqueous methanol solution. The following table provides data for foam quality and half-life for the noted concentrations of Paratene™ MF80 added to solutions of water having the stated concentrations of methanol.

<b>MF80 (vol%)</b>	<b>Methanol (vol %)</b>	<b>Quality</b>	<b>Half Life (sec)</b>
0.5	60	90	450
0.5	70	90	200
1.0	70	92	440
2.0	70	92	511
2.0	80	93	170

Paratene™ MF80 should be tested prior to use to determine the concentration required for the specific application.

## Safety and Handling

Paratene™ MF80 contains methanol and is toxic. It can cause serious injury or death if ingested. Refer to the MSDS for details.

Additional foaming agents are available from Woodrising Resources for foaming hydrocarbons including diesel, oil, and condensate (Paratene™ HFA), and for foaming water (Paratene™ WF).

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