POLYMERIC SURFACTANTS FOR IMPROVED EMULSION AND FLOW PROPERTIES AT LOW TEMPERATURES

ABSTRACT

A polymer surfactant for improving engine oil emulsion properties of a lubricating composition mixed with water and/or fuel contamination, particularly at very cold temperatures, is described herein. In approaches, selected polymeric and functionalized compounds can impart both robust emulsion properties and simultaneously deliver good low temperature fluidity for lubricating compositions that may contain residual amounts of water and/or fuel contamination. Lubricating compositions including such surfactants demonstrate robust properties at temperatures down to about -30 °C.

[Figure 1]