

BIO-BASED SYNTHETIC FLUIDS

ABSTRACT

A method is provided involving altering the viscosity of bio-derived paraffins to produce a paraffinic fluid, where the altering step includes oligomerizing bio-derived paraffins, unsaturating bio-derived paraffins, chlorinating bio-derived paraffins, or a combination of any two or more thereof; the bio-derived paraffins are produced by hydrodeoxygenating a bio-based feed; the bio-based feed comprises bio-derived fatty acids, fatty acid esters, or a combination thereof; the bio-derived paraffins comprise n-paraffins; and the n-paraffins have a biodegradability of at least 40% after about 23 days of exposure to microorganisms. Also provided are methods of protecting a substance by applying a paraffinic fluid and a method of producing an orifice in a substrate by at least injecting a paraffinic fluid into the substrate

FIG. 1