

Title (en)

FUEL AND LUBRICANT ADDITIVES AND METHODS FOR IMPROVING FUEL ECONOMY AND VEHICLE EMISSIONS

Title (de)

KRAFTSTOFF- UND SCHMIERMITTELADDITIVE UND VERFAHREN ZUR VERBESSERUNG VON WIRTSCHAFTLICHKEIT UND FAHRZEUGEMISSIONEN

Title (fr)

ADDITIFS DE CARBURANTS ET DE LUBRIFIANTS ET PROCEDES PERMETTANT D'ACCROITRE LES ECONOMIES DE CARBURANT ET DE REDUIRE LES EMISSIONS DES VEHICULES

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Application

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Abstract (en)

[origin: WO2007014266A2] An additive includes a calcium source, a suspension agent, a castor oil, and optionally a castor supplement/replacement. In many embodiments, polyalphaolefin is included. The preferred suspension agents are fatty acid esters, triglycerides or other, with a pour point/melt point from about 5 degrees C to about 50 degrees C. Suspension agents of particular interest are: 1) polymerized ester(s) of ricinoleic acid (polymerized ester(s) of 12-Hydroxy Oleic Acid), 2) polymerized ester(s) of 12-Hydroxy Stearic Acid, 3) waxy esters of ricinoleic acid, 4) palm oil, 5) palm-olein, 6) coconut oil, and 7) jojoba oil. The waxy esters may result from polymerization of shorter carboxylic acid monomers. The additive may be used in fuels to improve combustion engine performance in terms of efficiency and emissions. Polyalphaolefin may be important, especially in additive formulations for diesel fuels, for NOx reduction. The additive may be used in lubricants that improve performance of both ferrous and non-ferrous metal components of engines, guns, or other machinery. The additive also may be used in cutting fluids for machining and fabrication. Used in conjunction with other additives, embodiments of the invention may be used to lower pour points in oils, esters and other similar products.

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