

FUEL ADDITIVE COMPOUNDS AND METHOD OF MAKING THE COMPOUNDS

ABSTRACT OF THE DISCLOSURE

The present application is directed to detergent base products and processes for forming the detergent base products. One embodiment of the process comprises forming a bis-Mannich intermediate compound by reacting (i) at least one hydroxyl substituted aromatic ring compound having on the ring an aliphatic hydrocarbyl substituent derived from a polyolefin having a number average molecular weight of about 500 to about 3000; (ii) at least one primary amine; and (iii) at least one aldehyde. The resulting bis-Mannich intermediate compound is then reacted with at least one second amine compound chosen from primary and secondary amines to form the detergent base product.