

FUEL COMPOSITION

ABSTRACT

A detergent additive package comprising a quaternary ammonium internal salt detergent and a Mannich base detergent mixture, wherein the quaternary ammonium internal salt is obtained from amines or polyamines that is substantially devoid of any free anion species, wherein the Mannich base detergent mixture comprises a first Mannich base detergent component derived from a di- or polyamine and a second Mannich base detergent component derived from a monoamine, wherein the weight ratio of the first Mannich base detergent to the second Mannich base detergent mixture ranges from about 1:6 to about 3:1, and wherein the weight ratio of the quaternary ammonium internal salt detergent and the Mannich base detergent mixture ranges from about 1:10 to about 1:100.

[Figure 1]