6. A diesel fuel composition according to claim 5 wherein R is 2-hydroxyphenyl or 2-aminophenyl and R^1 is methyl.

7. A diesel fuel composition according to claim 3 wherein the compound of formula (A) is an ester of an α-hydroxycarboxylic acid.

8. A diesel fuel composition according to claim 3 wherein the compound of formula (A) is an ester of a polycarboxylic acid.

9. A diesel fuel composition according to any preceding claim wherein R^2 and R^3 is each independently C_1 to C_8 alkyl and X is an alkylene group having 2 to 5 carbon atoms.

10. A diesel fuel composition according to any preceding claim which comprises a further additive, this further additive being the product of a Mannich reaction between:

(a) an aldehyde;
(b) a polyamine; and
(c) an optionally substituted phenol.

11. A diesel fuel composition according to claim ~~11~~ 10 wherein component (a) comprises formaldehyde, component (b) comprises a polyethylene polyamine and component (c) comprises a para-substituted monoalkyl phenol.

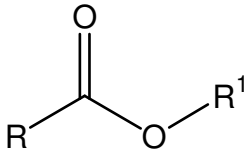
12. A diesel fuel composition according to any preceding claim to which a metal-containing fuel-borne catalyst has been added to aid with the regeneration of particulate traps.

13. A diesel fuel composition according to claim 12 wherein the catalyst is based on metals selected from iron, cerium , group I and group II metals e.g. calcium and strontium, either as mixtures or alone.

14. A diesel fuel composition according to claim 12 wherein the catalyst is selected from platinum and manganese.

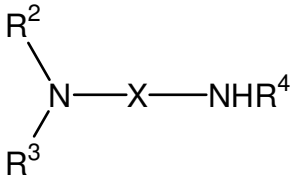
~~12~~15. An additive package which upon addition to a diesel fuel provides a composition as claimed in any preceding claim.

~~13~~16. The use of a quaternary ammonium salt additive in a diesel fuel composition to improve the engine performance of a diesel engine when using said diesel fuel composition, wherein the quaternary ammonium salt is formed by the reaction of a compound of formula (A):

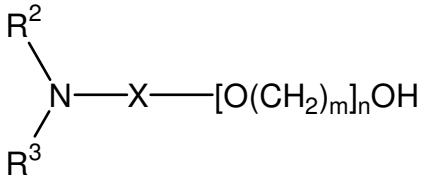


(A)

and a compound formed by the reaction of a hydrocarbyl-substituted acylating agent and an amine of formula (B1) or (B2):



(B1)



(B2)

wherein R is an optionally substituted alkyl, alkenyl, aryl or alkylaryl group; R^1 is a C_1 to C_{22} alkyl, aryl or alkylaryl group; R^2 and R^3 are the same or different alkyl groups having from 1 to 22 carbon atoms; X is an alkylene group having from 1 to 20 carbon atoms; n is from 0 to 20; m is from 1 to 5; and R^4 is hydrogen or a C_1 to C_{22} alkyl group.

~~14~~17. The use according to claim ~~14~~ 16 wherein the diesel fuel composition further comprises an additive formed by a Mannich reaction between

(a) an aldehyde;
(b) a polyamine; and
(c) an optionally substituted phenol.

~~15~~18. The use according to claim ~~14~~ 16 or claim ~~15~~ 17 wherein the diesel engine comprises a high pressure fuel system.

~~16~~19. The use of a diesel fuel composition as claimed in any of claims 1 to ~~12~~ 15 to improve the performance of a modern diesel engine having a high pressure fuel system and a traditional diesel engine.

~~17~~20. The use according to any of claims ~~13~~ 16 to ~~16~~ 19 to provide “clean up” performance.