

Title (en)

Use of quaternary ammonium salts in gasoline fuel to improve performance

Title (de)

Verwendung von quarternären Ammoniumsalzen in Benzinbrennstoff zur Verbesserung der Brennstoffleistung

Title (fr)

Utilisation de sels d'ammonium quaternaire dans l'essence pour améliorer les performances

Publication

EP 2987845 B1 20180509 (EN)

Application

EP 14181490 A 20140819

Priority

EP 14181490 A 20140819

Abstract (en)

[origin: EP2987845A1] Use of a fuel composition for reducing friction or wear in a fuel delivery system of an engine or corrosion in fuel delivers system of an engine or fuel storage terminal. The fuel composition includes gasoline and from about 10 to about 500 ppm by weight based on a total weight of the fuel composition of an alkoxylated quaternary ammonium salt derived from an epoxide, a tertiary amine, and optional protonating agent.

IPC 8 full level

C10L 1/222 (2006.01); **C10L 1/224** (2006.01); **C10L 10/04** (2006.01); **C10L 10/08** (2006.01); **C10M 133/08** (2006.01); **C10M 133/16** (2006.01)

CPC (source: EP)

C10L 1/2225 (2013.01); **C10L 1/224** (2013.01); **C10L 10/04** (2013.01); **C10L 10/08** (2013.01); **C10M 133/08** (2013.01); **C10M 133/16** (2013.01); **C10L 2200/0423** (2013.01); **C10L 2270/023** (2013.01); **C10M 2215/042** (2013.01); **C10M 2215/082** (2013.01); **C10N 2030/06** (2013.01)

Cited by

CN106147887A; US2020024536A1; CN110734796A; EP3825387A1; CN112831358A; CN114072485A; US12024686B2; US12043808B2; WO2020109568A1; US11390821B2; US11629303B2; US11795412B1; US11873461B1

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