

Title (en)
IMPROVEMENTS IN OR RELATING TO ADDITIVES FOR FUELS AND LUBRICANTS

Title (de)
VERBESSERUNGEN AN ODER IM ZUSAMMENHANG MIT ZUSÄTZEN FÜR KRAFTSTOFFE UND SCHMIERSTOFFE

Title (fr)
AMÉLIORATIONS APPORTÉES À DES ADDITIFS POUR CARBURANTS ET LUBRIFIANTS OU SE RAPPORTANT À DES ADDITIFS POUR CARBURANTS ET LUBRIFIANTS

Publication
EP 2649166 A1 20131016 (EN)

Application
EP 11808692 A 20111208

Priority
• GB 201020891 A 20101209
• GB 2011052438 W 20111208

Abstract (en)
[origin: GB2486255A] An additive compound comprising a derivative of particular fatty acids and polyamines has been found to be friction reducing, and particularly readily miscible in fuels and lubricants. The fatty acid has more than 12 carbon atoms and at least one carboxylic group and may be tall oil fatty acid. The polyamine residue has more than two nitrogen atoms and may be diethylene triamine. The mole ratio of the carboxylic groups to nitrogen atoms used to form the compound is greater than 0.8 carboxylic groups per 1 nitrogen atom.

IPC 8 full level
C10L 1/222 (2006.01); **C10L 1/22** (2006.01); **C10L 1/224** (2006.01); **C10L 10/08** (2006.01); **C10M 129/38** (2006.01); **C10M 129/40** (2006.01); **C10M 133/06** (2006.01); **C10M 133/16** (2006.01); **C10M 159/12** (2006.01); **C10N 30/06** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP GB US)
C07C 233/36 (2013.01 - GB); **C10L 1/221** (2013.01 - EP GB US); **C10L 1/222** (2013.01 - EP US); **C10L 1/224** (2013.01 - EP US); **C10L 10/08** (2013.01 - EP US); **C10M 133/02** (2013.01 - US); **C10M 133/04** (2013.01 - EP US); **C10M 133/06** (2013.01 - EP US); **C10M 133/16** (2013.01 - EP GB US); **C10M 133/56** (2013.01 - GB); **C10M 2207/18** (2013.01 - EP US); **C10M 2215/04** (2013.01 - EP US); **C10M 2215/08** (2013.01 - EP US); **C10N 2020/02** (2013.01 - GB); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/54** (2020.05 - GB); **C10N 2030/70** (2020.05 - EP US); **C10N 2040/25** (2013.01 - EP GB US); **C10N 2040/252** (2020.05 - EP US); **C10N 2040/255** (2020.05 - EP US)

C-Set (source: EP US)
C10M 2207/18 + C10M 2215/04

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
GB 201020891 D0 20110126; GB 2486255 A 20120613; EP 2649166 A1 20131016; US 2013288937 A1 20131031; WO 2012076896 A1 20120614; ZA 201303959 B 20140730

DOCDB simple family (application)
GB 201020891 A 20101209; EP 11808692 A 20111208; GB 2011052438 W 20111208; US 201113991949 A 20111208; ZA 201303959 A 20130530