

Title (en)

ADDITIVE PACKAGE FOR MARINE ENGINE LUBRICATION

Title (de)

ADDITIVPAKET FÜR DIE SCHMIERUNG EINES SCHIFFSMOTORS

Title (fr)

COMPOSITION D'ADDITIF POUR LA LUBRIFICATION D'UN MOTEUR MARIN

Publication

EP 3112447 A1 20170104 (EN)

Application

EP 16174815 A 20160616

Priority

EP 15174461 A 20150630

Abstract (en)

An additive package for a two- or four-stroke marine engine lubricant comprises an oil of lubricating viscosity, a salicylate detergent and a sulfonate detergent in a ratio of 90/10 to 10/90 (expressed as mmol of soap), and 1 to 10 mass % of a hydrocarbylphenol-aldehyde condensate.

IPC 8 full level

C10M 165/00 (2006.01)

CPC (source: CN EP KR US)

C10M 129/10 (2013.01 - KR); **C10M 129/14** (2013.01 - KR); **C10M 129/16** (2013.01 - US); **C10M 129/54** (2013.01 - US);
C10M 135/10 (2013.01 - KR US); **C10M 141/08** (2013.01 - CN); **C10M 161/00** (2013.01 - CN); **C10M 165/00** (2013.01 - EP US);
C10M 169/044 (2013.01 - KR); **C10M 2207/046** (2013.01 - CN US); **C10M 2207/144** (2013.01 - US); **C10M 2207/262** (2013.01 - CN EP US);
C10M 2209/101 (2013.01 - EP US); **C10M 2219/046** (2013.01 - CN EP US); **C10N 2010/02** (2013.01 - CN);
C10N 2010/04 (2013.01 - CN EP KR US); **C10N 2020/02** (2013.01 - KR); **C10N 2030/04** (2013.01 - CN EP US); **C10N 2030/52** (2020.05 - EP US);
C10N 2040/10 (2013.01 - US); **C10N 2040/252** (2020.05 - CN EP US)

C-Set (source: CN)

1. **C10M 2207/262** + **C10N 2010/02**
2. **C10M 2219/046** + **C10N 2010/02**
3. **C10M 2207/262** + **C10N 2010/04**
4. **C10M 2219/046** + **C10N 2010/04**

Citation (applicant)

EP 2374866 A1 20111012 - INFINEUM INT LTD [GB]

Citation (search report)

- [Y] US 2005137098 A1 20050623 - LE COENT JEAN-LOUIS [FR], et al
- [Y] US 2006105925 A1 20060518 - FELLOWS RAYMOND [GB], et al
- [X] US 2004102335 A1 20040527 - CARRICK VIRGINIA A [US], et al

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3112447 A1 20170104; **EP 3112447 B1 20180328**; AU 2016204471 A1 20170119; AU 2016204471 B2 20170817; CA 2934722 A1 20161230;
CA 2934722 C 20231003; CN 106318540 A 20170111; CN 106318540 B 20210316; ES 2665337 T3 20180425; JP 2017014505 A 20170119;
JP 6730107 B2 20200729; KR 102633889 B1 20240207; KR 20170003437 A 20170109; SG 10201605358S A 20170127;
US 2017002286 A1 20170105

DOCDB simple family (application)

EP 16174815 A 20160616; AU 2016204471 A 20160629; CA 2934722 A 20160630; CN 201610497631 A 20160629; ES 16174815 T 20160616;
JP 2016129827 A 20160630; KR 20160080546 A 20160628; SG 10201605358S A 20160629; US 201615197813 A 20160630