Title (en)

COMPOSITION FOR THE PROTECTION FROM SCALE AND AS LUBRICANT FOR METAL HOT WORKING

Title (de)

ZUSAMMENSETZUNG FÜR DEN SCHUTZ VOR ZUNDER UND ALS SCHMIERMITTEL FÜR DIE HEISSVERARBEITUNG VON METALLEN

Title (fr)

COMPOSE POUR LA PROTECTION CONTRE AMADOU ET COMME LUBRIFIANTE POUR LE TRAVAIL DU MÉTAL CHAUD

Publication

EP 2976412 A1 20160127 (DE)

Application

EP 14708889 A 20140311

Priority

- DE 102013102897 A 20130321
- EP 2014054626 W 20140311

Abstract (en)

[origin: CA2904500A1] The invention relates to a composition for protection from scale and as a lubricant for the hot processing of metals, consisting of a mixture of finely pulverulent materials, wherein the mixture contains at least the following constituents: (a) 0 to 15% by weight secondary or tertiary calcium phosphate compound, hydroxyl apatite or a mixture thereof, (b) 0.1 to 35% by weight of fatty acid, fatty acid salt or a mixture thereof, (c) 1 to 90% by weight ground boron silicate glass, which contains Na, B, Si and Al in the following weight fractions, expressed by their respective oxides, in relation to the boron silicate glass: 1 to 30% by weight Na2O, 2 to 70% by weight B2O3, 10 to 70% by weight SiO2 and 0 to 10% by weight Al2O3, (d) 9 to 85% by weight condensed alkali phosphates, (e) boric acid, boric acid salt or a mixture thereof in an amount corresponding to a boron content, expressed by the oxide, of 0 to 3.2% by weight B2O3, (f) 0 to 10% by weight graphite, the mixture having an average particle size D50 of = 300 µm.

IPC 8 full level

C10M 125/28 (2006.01)

CPC (source: EP US)

C10M 141/02 (2013.01 - US); **C10M 141/12** (2013.01 - EP US); C10M 2201/041 (2013.01 - EP US); C10M 2201/084 (2013.01 - EP US); C10M 2201/085 (2013.01 - EP US); C10M 2201/087 (2013.01 - EP US); C10M 2201/102 (2013.01 - EP US); C10M 2201/12 (2013.01 - EP US); C10M 2207/122 (2013.01 - EP US); C10M 2207/125 (2013.01 - EP US); C10N 2020/06 (2013.01 - EP US); C10N 2030/02 (2013.01 - EP US); C10N 2030/04 (2013.01 - EP US); C10N 2030/70 (2020.05 - EP US); C10N 2040/242 (2020.05 - EP US)

C-Set (source: EP US)

EP

1. C10M 2207/122 + C10N 2010/02
2. C10M 2201/085 + C10N 2010/04
3. C10M 2207/122 + C10N 2010/04

US

1. C10M 2201/085 + C10N 2010/04
2. C10M 2207/122 + C10N 2010/04
3. C10M 2207/122 + C10N 2010/02

Citation (search report)

See references of WO 2014146927A1

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)

DE 102013102897 A1 20140925; AR 095489 A1 20151021; BR 112015019739 A2 20170718; CA 2904500 A1 20140925; CA 2904500 C 20170328; CN 105324470 A 20160210; CN 105324470 B 20170315; EA 030719 B1 20180928; EA 201500964 A1 20160531; EP 2976412 A1 20160127; EP 2976412 B1 20160817; ES 2590216 T3 20161118; HU E029378 T2 20170228; JP 2016519701 A 20160707; JP 5986337 B2 20160906; KR 101652660 B1 20160830; KR 20150138850 A 20151210; MX 2015013371 A 20160531; PL 2976412 T3 20161230; SA 515360884 B1 20161103; TW 201500541 A 20150101; US 10995297 B2 20210504; US 2016215232 A1 20160728; WO 2014146927 A1 20140925

DOCDB simple family (application)

DE 102013102897 A 20130321; AR P140101093 A 20140314; BR 112015019739 A 20140311; CA 2904500 A 20140311; CN 201480017118 A 20140311; EA 201500964 A 20140311; EP 14708889 A 20140311; EP 2014054626 W 20140311; ES 14708889 T 20140311; HU E14708889 A 20140311; JP 2016503601 A 20140311; KR 20157030124 A 20140311; MX 2015013371 A 20140311; PL 14708889 T 20140311; SA 515360884 A 20150812; TW 103105109 A 20140217; US 201414778322 A 20140311