

Title (en)
METALLIC MIXTURE BLASTING CAPSULE

Title (de)
METALLGEMISCH-SPRENGKAPSEL

Title (fr)
CAPSULE DÉTONANTE À MÉLANGE MÉTALLIQUE

Publication
EP 3659992 A4 20200916 (EN)

Application
EP 18907112 A 20180221

Priority
KR 2018002153 W 20180221

Abstract (en)
[origin: EP3659992A1] The present invention relates to a metallic mixture blasting capsule comprising: an outer cylinder; an inner cylinder accommodated inside the outer cylinder; a rapidly expanding metallic mixture composed of a sodium nitrate powder which is an oxidizing agent, a ferric oxide powder which is an oxidizing agent, an aluminum powder which is a reducing agent, a solid lubricant powder which is an anti-friction agent between powders, and an inorganic filler powder which is a filler for pores between powders, and is filled between the outer cylinder and the inner cylinder; a rapidly detonating metallic mixture composed of a sodium nitrate powder which is an oxidizing agent, a ferric oxide powder which is an oxidizing agent, a copper oxide powder which is an oxidizing agent, an aluminum powder which is a reducing agent, and a magnesium powder which is a reducing agent, and is mixed in a weight ratio greater than that of the aluminum powder and filled in the inner cylinder; and an electric spark generation means embedded in the rapidly detonating metallic mixture.

IPC 8 full level
C06B 33/12 (2006.01); **C06B 23/00** (2006.01); **C06C 7/00** (2006.01); **C06C 9/00** (2006.01); **F42D 3/04** (2006.01)

CPC (source: EP)
C06B 23/00 (2013.01); **C06B 33/00** (2013.01); **C06B 33/12** (2013.01); **C06C 7/00** (2013.01); **F42D 1/24** (2013.01); **F42D 3/04** (2013.01)

Citation (search report)

- [A] GB 1205378 A 19700916 - ASAHI CHEMICAL IND [JP]
- [A] JP 4489142 B1 20100623
- [A] WO 2018029248 A1 20180215 - BENGTSSON JAN ÅKE [SE]
- [A] EP 1308430 A2 20030507 - KIM CHANG SUN [KR]
- [A] US 2005109230 A1 20050526 - FALQUETE MARCO A [BR]
- [A] US 2014366762 A1 20141218 - FALQUETE MARCO ANTONIO [BR]
- See references of WO 2019164027A1

Cited by
CN115014140A; GB2612622A

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 3659992 A1 20200603; EP 3659992 A4 20200916; EP 3659992 B1 20210616; AR 111294 A1 20190626; AU 2018410014 A1 20200319;
AU 2018410014 B2 20221020; BR 112020010200 A2 20201110; BR 112020010200 B1 20220503; CO 2020005323 A2 20200619;
ES 2886020 T3 20211216; MX 2020005672 A 20220906; PE 20201324 A1 20201125; PT 3659992 T 20210819; WO 2019164027 A1 20190829;
ZA 202001878 B 20210428

DOCDB simple family (application)

EP 18907112 A 20180221; AR P180100640 A 20180320; AU 2018410014 A 20180221; BR 112020010200 A 20180221;
CO 2020005323 A 20200428; ES 18907112 T 20180221; KR 2018002153 W 20180221; MX 2020005672 A 20180221;
PE 2020000579 A 20180221; PT 18907112 T 20180221; ZA 202001878 A 20200324