

Title (en)

Activation of energetic compositions by magnetic mixing

Title (de)

Aktivierung von energetischen Zusammensetzungen durch magnetische Mischung

Title (fr)

Activation de compositions énergétiques par mélange magnétique

Publication

EP 2615077 A1 20130717 (FR)

Application

EP 13151038 A 20130111

Priority

FR 1250348 A 20120113

Abstract (en)

Inactive energy composition comprises magnetic or ferromagnetic particles such as driving particles (30) having a dimension from micrometer to centimeter, and at least two types of physically separated solid pulverulent compounds, such as inert precursor of final energy composition, having a nanometer dimension, where the energy composition is activated by a pyrotechnic method by mixing the inert precursors and agitating the driving particles using a magnetic field that varies in function of time. Independent claims are included for: (1) a device comprising the composition, and one or more magnetic field generators (50) to activate the energy composition using the pyrotechnic method; (2) a pyrotechnic system or element, which is integrated in the device; and (3) activating the composition comprising agitating the particles by magnetic field generator to mix the inert precursors, and activating the composition by contacting with the inert precursors.

Abstract (fr)

L'invention concerne une composition énergétique comprenant des particules ferromagnétiques ou aimantées de dimension micrométrique à centimétrique, dites particules motrices, et au moins deux types de composés solides pulvérulents de dimension nanométrique initialement physiquement séparés, dits précurseurs inertes de composition énergétique finale, ladite composition énergétique pouvant être activée du point de vue pyrotechnique par mélange desdits précurseurs inertes de composition énergétique finale par agitation desdites particules motrices au moyen d'un champ magnétique variant en fonction du temps. L'invention concerne également un dispositif comprenant une telle composition ainsi qu'un procédé pour activer ladite composition énergétique.

IPC 8 full level

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CPC (source: EP)

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