

Title (en)  
Pourable propellant powder

Title (de)  
Schüttbares Treibladungspulver

Title (fr)  
Poudre propulsive pouvant être versée

Publication  
**EP 1616845 B1 20131030 (DE)**

Application  
**EP 04405460 A 20040716**

Priority  
EP 04405460 A 20040716

Abstract (en)  
[origin: EP1616845A1] Pourable propellant powder comprising nitrocellulose-based grains includes 0.1-2 wt.% bismuth as a decoppering additive. Independent claims are also included for: (1) producing a propellant powder as above by adding bismuth or a bismuth compound in an amount of 0.1-2 wt.% in a polishing process together with graphite so that the bismuth is incorporated into a surface layer of the grain; (2) producing a propellant powder as above by extruding green grains from a kneadable mass containing 0.1-2 wt.% bismuth and surface-treating the green grains to produce powder grains with a bismuth-containing matrix; (3) small-, medium- and large-caliber munitions with a lead-free projectile and a lead-free propellant as above.

IPC 8 full level  
**C06B 23/04** (2006.01)

CPC (source: EP)  
**C06B 23/04** (2013.01)

Cited by  
EP1857429A1; US8353994B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**EP 1616845 A1 20060118; EP 1616845 B1 20131030**; DK 1616845 T3 20140203

DOCDB simple family (application)  
**EP 04405460 A 20040716**; DK 04405460 T 20040716