

Title (en)

Additive approach to ballistic and slag melting point control of azide-based gas generant compositions.

Title (de)

Verfahren zur Regulierung der Brenngeschwindigkeit und des Schmelzpunktes der Schlacke durch Inkorporation von Zusätzen zu Azid enthaltenden gaserzeugenden Zusammensetzungen.

Title (fr)

Approche par incorporation d'additifs en compositions génératrices de gaz à base d'azoture pour ajuster le point de fusion des scories et la vitesse de combustion.

Publication

EP 0584899 A3 19950802 (EN)

Application

EP 93300253 A 19930115

Priority

US 92611992 A 19920805

Abstract (en)

[origin: EP0584899A2] Gas generant pyrotechnic compositions especially suitable for inflating vehicle occupant restraint systems with nitrogen gas are described. The compositions are comprised (in wt.%) of 65-74% of an azide, preferably sodium azide; 17-29.5% of a metal oxide selected from iron, chromium, manganese, cobalt, copper and vanadium oxides, preferably ferric oxide; and 1.0-6% metal nitrite or nitrate co-oxidizer, preferably sodium nitrate; to which base composition is added 0.5-8% silica, alumina, titania or mixtures thereof; up to 6% bentonite and up to 4% molybdenum disulfide. Preferred driver and passenger side formulations are disclosed. The compositions burn from 20 to 38 mm per second and have excellent slag and clinker properties, as well as excellent aging and mechanical strength characteristics when formed into cylindrical pellets or wafers. The formulation ingredients are amenable to water slurry mixing, spray drying and machine pressing into cylindrical pellets or wafers for insertion into a suitable gas generating device.

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IPC 8 full level

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CPC (source: EP)

C06B 35/00 (2013.01); **C06D 5/06** (2013.01)

Citation (search report)

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