

Title (en)  
Rocket propellant

Title (de)  
Raketentreibsatz

Title (fr)  
Charge propulsive pour fusée

Publication  
**EP 1046626 A1 20001025 (DE)**

Application  
**EP 00108297 A 20000414**

Priority  
DE 19917672 A 19990419

Abstract (en)  
Ammonium perchlorate-based fuel for low-smoke rocket propellant is surrounded by an inhibiting insulation layer comprising polyurethane binder and a mixture of 2-8 wt.% silicon carbide, 20-60 wt.% silicon dioxide and 2-20 wt.% heat-resistant carbon, polymer, silicate or ceramic fibers. Low-smoke rocket propellant, especially for end burners, comprises an ammonium perchlorate (AP)-based fuel containing an isocyanate-bonded, hydroxy-terminated polybutadiene binder, in which the fuel is surrounded by an inhibiting insulation layer comprising a polyurethane binder and a filler combination containing 2-8 wt.% silicon carbide, 20-60 wt.% silicon dioxide and 2- wt.% heat-resistant carbon, polymer, silicate or ceramic fibres with a length of 1-20 mm. An Independent claim is also included for a process for the production of rocket propellant by homogenizing the fillers and binder in a kneader and then processing the mixture to form the insulating layer by hardening the binder.

Abstract (de)  
Bei einem Raketentreibsatz mit rauchreduziertem Abbrand, insbesondere für Stirnbrenner, mit einem Treibstoff auf der Basis von Ammoniumperchlorat und mit einem Binder aus isocyanatgebundenem, hydroxyterminiertem Polybutadien und einer den Treibstoff umgebenden, inhibierenden Isolationsschicht besteht letztere aus einem Polyurethan-Binder und einer Füllstoff-Kombination aus 2 bis 8 Gew.% Siliciumcarbid, 20 bis 60 Gew.% Siliciumdioxid und temperaturfesten Kohlenstoff-, Polymer-, Silikat- oder Keramikfasern mit einer Länge von 1 bis 20 mm und einem Gehalt von 2 bis 20 Gew.%. Ferner ist ein Verfahren zur Herstellung eines solchen Raketentreibsatzes beschrieben.

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**C06B 45/12**

IPC 8 full level  
**C06B 45/12** (2006.01)

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Citation (search report)

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