

United States Patent [19]

Johnson et al.

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4,397,700

[45]

Aug. 9, 1983

NSWC/IAH
66062

[54] PIPERAZINE DERIVATIVES OF FERROCENE

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[21] Appl. No.: 351,711
 [22] Filed: Feb. 24, 1982

[51] Int. Cl.³ C06B 45/34
 [52] U.S. Cl. 149/7; 149/19.2;
 544/225
 [58] Field of Search 149/7, 8, 19.2;
 544/225, 358

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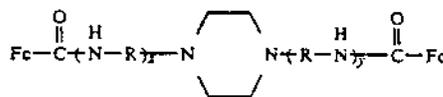
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Primary Examiner—Edward A. Miller

[57] ABSTRACT

Diferrocenyl piperazines represented by the formula:



wherein Fc represents a ferrocene radical R represents alkyl or alkoxy radical having from 1 to 7 carbon atoms, and x and y are 0 or 1 are disclosed as burning rate modifiers for ammonium perchlorate composite propellants. Coating ammonium perchlorate crystals with the diferrocenyl piperazines significantly decreases migration of the piperazines in the propellant.

9 Claims, No Drawings