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**5574126** 68377

## Energetic fluoronitro prepolymer

**Inventors:** Lawrence;  
G. William  
Silver  
Spring MD  
Gilligan;  
William H.  
Ft.  
Washington  
MD

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America as  
represented  
by the  
Secretary  
of the Navy  
Washington  
DC

### Abstract

Hydroxy-terminated poly(2-fluoro-2,2-dinitroethyl) polynitroorthocarbonate prepolymers of the formula

which are prepared by reacting bis(2-fluoro-2,2-dinitroethyl)dichloroformal with a diol of the formula

wherein  $n > 1$ , and wherein W, X, Y, and Z vary independently and are F or NO<sub>2</sub>, and wherein A is -CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>-, -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-, -CF<sub>2</sub>-, -CF<sub>2</sub>CF<sub>2</sub>-, -CF<sub>2</sub>CF<sub>2</sub>CF<sub>2</sub>-, -CF<sub>2</sub>CF<sub>2</sub>CF<sub>2</sub>CF<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>OCH<sub>2</sub>OCH<sub>2</sub>-, -CH<sub>2</sub>OCF<sub>2</sub>OCH<sub>2</sub>-, or -CH<sub>2</sub>N(NO<sub>2</sub>)CH<sub>2</sub>-. These prepolymers are reacted with curing agents (e.g., polyisocyanates) to form energetic polymeric binders.

US 03306939 19670200 Hill

#### References:

03388147 19680600 Kamlet  
et al.

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