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[54] ACETALS DERIVED FROM NEGATIVELY SUBSTITUTED ALDEHYDES AND POLYNITRO- OR HALONITROETHANOLS

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Related U.S. Application Data

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[51] Int. Cl.[2] C07C 43/30

[52] U.S. Cl. ..... 260/615 A

[58] Field of Search ..... 260/615 A

[56] References Cited

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[57] ABSTRACT

Acetals of the formulas $CHCl_2CH(OR)_2$, $CCl_3CH(OR)_2$, $CHF_2CH(OR)_2$, $CF_3CH(OR)_2$, $RO_2CCH(OR)_2$, and $(RO)_2HCCH(OR)_2$ wherein R can be $-CH_2CYZ(NO_2)$, $-CH_2CH_2CYZ(NO_2)$, $-CH_2C(NO_2)_2CH_3$, $-CH_2C(NO_2)_2CYZ(NO_2)$, $-CH_2C(NO_2)_2CH_2CYZ(NO_2)$ or $-CH_2C(NO_2)_2C(NO_2)_2CYZ(NO_2)$ wherein Y and Z vary independently and can be Cl, F or NO_2. These acetals are produced by contacting a negatively substituted aldehyde such as $CHCl_2CHO$, CCl_3CHO, CHF_2CHO, CF_3CHO, HO_2CCHO, or OHCCHO with a negatively substituted alcohol of the formula ROH wherein R is as defined above. Either FSO_3H, $ClSO_3H$, or CHF_2SO_3H, or CF_3SO_3H is used to catalyze the condensation. The acetals of this invention are useful as explosives.

5 Claims, No Drawings