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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 69/66**

[52] **U.S. Cl.** ..... **560/156**; 260/615 A

[58] **Field of Search** ..... 260/484 R

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,387,044 6/1968 Grakauskas ..... 260/484 R

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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 substitute 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.

3 Claims, No Drawings