

## Potassium salts of 4,6-dinitro-5,7-dioxybenzofuroxane as volumetric burning inhibitors

© Tatiana A. Eneikina,\* Luisa M. Yusupova,\* Gul'sina M. Hairullina,†

Lilia I. Selivanova, Ekaterina A. Vasyutina, Lyubov A. Chistyakova, and Roza F. Gatina

State Scientific-Research Institute of Chemical Products. Svetlaya St., 1.

Kazan, 420033. Tatarstan Republic. Russia. Phone: +7 (843) 541-76-02. E-mail: [hgm1961@rambler.ru](mailto:hgm1961@rambler.ru)

\*Supervising author; †Corresponding author

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### Abstract

Experimental data on the influence of di- and tri-potassium salts of 4,6-dinitro-5,7-dioxybenzofuroxane (DNDOBFO) on burning and ballistics of a propelling charge based on filled ball powder (BP) are presented. The inhibiting effect of potassium salt is shown. This effect is analogous to the effect of 3-4% (by mass) of thermo-chemical deterrent (dibutylphthalate) in BP. These salts are used as a propelling charge in 5.6 mm high velocity rifle cartridges of "Cowboy" type. The electrostatic characteristics and sensitivity to mechanical influence of the filled BP are determined. The principles of safe introduction of potassium salts of DNDOBFO type in BP compositions are described. These compositions are produced using aqueous-dispersing technology.