

Selection criteria of receipt in resource-saving technology of water-resistant ammonium nitrate based on calculations and experiments

© Alina R. Krivosheeva,⁺ Roza F. Gatina, and Yury M. Mihaylov*

Federal State Enterprise "State Scientific Research Institute of Chemical Products". Svetlaya St., 1. Kazan, 420033. Tatarstan Republic. Russia. Phone: +7 (843) 541-76-02. E-mail: aneco-ic@mail.ru

*Supervising author; ⁺Corresponding author

Keywords: ammonium nitrate, surfactant, water resistance, ferric oxide, ammonite.

Abstract

The combination of calculations and experiments has been considered to select the criterion for optimum component composition of water – resistant ammonium nitrate. On the basis of experiments it has been found that the content of calcium stearate in ammonium nitrate must be at least 0.6 % wt., and maximum content of surfactant is limited with oxygen balance of industrial explosives based on ammonium nitrate and additives.