LIQUID EXPLOSIVE "EXLID"

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Abstract: During the last 5 years, the world has witnessed the increasing interest in research and practical implementation in the industry of liquid explosives. In 2015, the company "Springer-Verlag GmbH Berlin Heidelberg" released the book "Liquid explosives" written by Chinese scientist Jiping Liu with the research results of liquid explosives, conducted in different countries of the world. In 2017, at the Conference of the European Association of explosive engineers in Stockholm, Australian scientists presented the report "Detonation performance of novel hydrogen peroxide and nitrate-based hybrid explosions." In 2017, the company PKF "Stimul" Ltd. has completed many-year studies and industrial tests of liquid explosives "Anility" which are produced at the places of production blasting from nonexplosive components: dinitrogen tetroxide and oil products. URALCHEM has developed liquid explosives on the basis of nitric acid and obtained the first experimental data. Interest in liquid explosives, which are made by mixing nonexplosive components, is caused by the following advantages: high energy characteristics; high density; initiation is possible without the use of dangerous in circulation factory-made products containing initiating explosives; for storage of explosives and armed guards, no need in warehouses for reduction of the terrorist threat, etc.

Keywords: liquid explosive; nitric acid; dinitrogen tetroxide; manufacturing of explosives; nonexplosive components; tests; blasting

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