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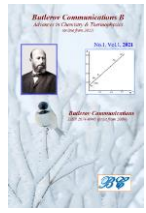

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About the anticorrosive properties of RZH gun oil. The problem of the ACOR-1 corrosion inhibitor

Mikhail G. Ivanov,*[+] and **Denis M. Ivanov**
Department of General Chemistry. Ural Federal University the First President of Russia B.N. Yeltsin. Mira St., 19. Yekaterinburg, 620002. Russia.
Phone: +7 (343) 375-93-87. E-mail: m.g.ivanov@urfu.ru

*Supervising author; [+]Corresponding author

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Abstract

The article analyzes the corrosion inhibitor AKOR-1 from different manufacturers. The research of the protective properties of prototypes of RZh oils with inhibitors based on AKOR-1 from different manufacturers in comparison with commercial RZh oil is presented.

Using the methods of IR-Fourier spectral analysis, anticorrosion additives ACOR-1 from different manufacturers were studied. It is shown that the intensity of the peak of the asymmetric valence oscillation of the NO_2 group in the FTIR spectra of the ACOR-1 additives correlates with the protective efficiency of the preservation oils with these additives in the salt mist chamber.

It was found that the anticorrosive effect of ACOR-1 additives of different manufacturers in the salt mist chamber is significantly different (in terms of the area of damage to the surface of the St10 plates by corrosion) with full compliance of their indicators with the requirements of GOST 15171-78.

It is shown that the protective effectiveness of the standard RZH gun oil and samples of RZH oils on ACOR-1 additives from different manufacturers is determined by the content of nitrated oils in the additive and, for the standard RZH oil, is very low.

Taking into account the importance of servicing small arms and cannon weapons and providing protection against corrosion in various climatic conditions, it is concluded that it is necessary to change the requirements of GOST 15171-78 by adding an item on the content of the main active substance – nitrated oil.

The possibility of enhancing the anti-corrosion effect of the standard RZH oil by introducing additional additives in the amount of 2-5% into its composition is shown.

The use of compositions of several corrosion inhibitors is the main way to increase the effecti-veness of anti-corrosion RZ oil. In this case, corrosion inhibitors must protect each other, providing a synergistic protective effect.

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