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UNITED STATES PATENT OFFICE

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REFINED VISCOUS HYDROCARBON OIL

No Drawing. Original application filed August 19, 1926, Serial No. 130,351. Divided and this application filed November 7, 1928, Serial No. 317,881. Renewed July 31, 1930.

This application is a division from Serial No. 130,351, filed August 19, 1926.

In the use of highly refined viscous hydrocarbon oils (from which substantially all asphaltic constituents have been removed, for example, by treatment with strong or fuming sulphuric acid) for the lubrication of turbines, and in similar uses, it has been found that they rapidly discolor, become increasingly acid and their tendency to emulsify increases. It has now been found that these defects in the use of such oils may be to a substantial extent remedied by the addition to such oils of very small proportions (in general, not more than about 0.3%) of naphthols. Thus, betanaphthol has been successfully employed for this purpose. Thus, a fuming acid treated white distillate oil of about 80 sec. Saybolt viscosity at 100° F. which, without the addition of such a substance increased in acidity from 0.01 to 25 mgm. KOH equivalent per gram of oil in 100 hours and markedly decreased in demulsifiability, when oxygen was passed therethrough at a temperature of 100° C., the same oil to which 0.02% betanaphthol had been added, showed no increase in acidity, and no decrease in demulsifiability under like conditions.

The oils prepared in accordance with the present invention have the property of retaining their electrical resistivity to a high degree on aging.

I claim:

1. The method of preventing acid formation and increase of emulsifiability in use of highly refined viscous hydrocarbon oils, which comprises adding thereto a small proportion of a naphthol.

2. The method of preventing acid formation and increase of emulsifiability in use of highly refined viscous hydrocarbon oils, which comprises adding thereto a small proportion of betanaphthol.

3. The method of preventing acid formation and increase of emulsifiability in use of highly refined viscous hydrocarbon oils, which comprises adding thereto about 0.2% of a naphthol.

4. The method of preventing acid formation and increase of emulsifiability in use of highly refined viscous hydrocarbon oils, which comprises adding thereto about 0.2% of betanaphthol.

5. A highly refined white viscous hydrocarbon oil free from asphaltic constituents and containing a small proportion of a naphthol.

6. A highly refined white viscous hydrocarbon oil free from asphaltic constituents and containing a small proportion of betanaphthol.

7. A highly refined white viscous hydrocarbon oil free from asphaltic constituents and containing about 0.2% of a naphthol.

8. A highly refined white viscous hydrocarbon oil free from asphaltic constituents and containing about 0.2% of betanaphthol.

In witness whereof, I have hereunto set my hand this 29th day of October, 1928.

THOMAS H. ROGERS.