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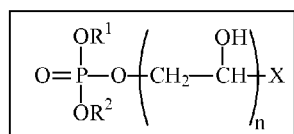
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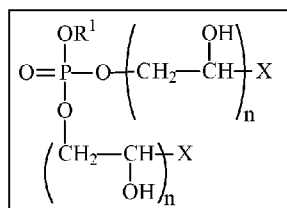
Declarations under Rule 4.17:

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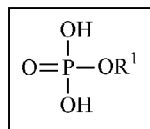
(54) Title: AN EFFECTIVE NOVEL NON - POLYMERIC AND NON - FOULING ADDITIVE FOR INHIBITING HIGH - TEMPERATURE NAPHTHENIC ACID CORROSION AND METHOD OF USING THE SAME



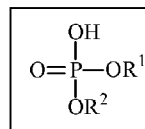
A



B



I



II

(57) Abstract: The present invention relates to inhibition of high temperature naphthenic acid corrosion occurring in hydrocarbon processing units. The invention provides an effective novel non - polymeric and non - fouling additive for inhibiting high - temperature naphthenic acid corrosion, comprising an effective corrosion - inhibiting amount of a second phosphate ester wherein said second phosphate ester is obtained by reacting a first phosphate ester with an oxirane compound selected from the group consisting of butylene oxide, ethylene oxide, propylene oxide or any other oxirane compound or a combination thereof, preferably with butylene oxide, capably yielding said second phosphate ester, having a structure A or B, Formulae (A) and (B) wherein R^1 and R^2 are each independently selected from the group consisting of moieties having 1 to 20 carbon atoms and R^1 and R^2 may be identical or different, X is H, CH_3 or C_2H_5 ; and n may vary from 1 to 20, wherein said first phosphate ester is having a structure I or II, Formulae (I) and (II) wherein R^1 and R^2 are each independently selected from the group consisting of moieties having 1 to 20 carbon atoms and R^1 and R^2 may be identical or different, said first phosphate ester being obtained as a reaction product of reaction of an alcohol with a phosphorous pentaoxide.



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