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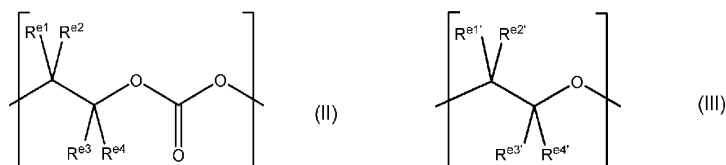
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(54) Title: SURFACE-ACTIVE AGENT



(57) Abstract: The invention concerns a surface-active agent comprising a polycarbonate block polyether of the formula (I): $Z^1\text{-(PC)}_P\text{-(PE)}_Q\text{-Z}^2$ (I), wherein PC represents a carbonate block with P repeat units of formula (II), (II), wherein $\text{R}^{\text{e}1}$, $\text{R}^{\text{e}2}$, $\text{R}^{\text{e}3}$, and $\text{R}^{\text{e}4}$ are independently selected from H, methyl, ethyl, propyl, butyl, or an ether, ester or carbonate group, with the proviso that when one of $\text{R}^{\text{e}1}$, $\text{R}^{\text{e}2}$, $\text{R}^{\text{e}3}$, and $\text{R}^{\text{e}4}$ is methyl, ethyl, propyl, butyl, or an ether, ester or carbonate group, the remaining $\text{R}^{\text{e}1}$, $\text{R}^{\text{e}2}$, $\text{R}^{\text{e}3}$, and $\text{R}^{\text{e}4}$ are H.; PE represents a polyether block with Q repeat units of formula (III), (III) wherein $\text{R}^{\text{e}1'}$, $\text{R}^{\text{e}2'}$, $\text{R}^{\text{e}3'}$, and $\text{R}^{\text{e}4'}$ are independently selected from H, methyl, ethyl, propyl, butyl, or an ether, ester or carbonate groups, with the proviso that when one of $\text{R}^{\text{e}1}$, $\text{R}^{\text{e}2}$, $\text{R}^{\text{e}3}$, and $\text{R}^{\text{e}4}$ is methyl, ethyl, propyl, butyl, or an ether, ester or carbonate group, the remaining $\text{R}^{\text{e}1'}$, $\text{R}^{\text{e}2'}$, $\text{R}^{\text{e}3'}$, and $\text{R}^{\text{e}4'}$ are H; Z^1 is R, R-O, R-C(O)-O- or R-O-C(O)-O; R is an optionally substituted straight or branched chain $\text{C}_1\text{-C}_{11}$ alkyl group; Z^2 is H, R, R-(O)C or R-O-(O)C; and wherein the value of P does not exceed the value of Q.



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