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(54) Title: COMPOSITION FOR CONTROL AND INHIBITION OF POLYMERIZATION OF MONOMERS, AND METHOD OF USE AND PREPARATION THEREOF

(57) Abstract: The present invention relates to an additive composition for controlling and inhibiting polymerization of monomers, wherein the composition comprises a combination of (a) a phenol compound comprising catechol compound with (b1) an aliphatic tertiary amine, (b2) oxide treated derivative of the aliphatic tertiary amine, or (b2) a mixture thereof, wherein the aliphatic tertiary amine contains one or more hydroxyl groups in the alkyl chain of the aliphatic tertiary amine. In one embodiment, the present invention also relates to a method for controlling and inhibiting polymerization of monomers by employing the additive composition of the present invention. In another embodiment, the present invention also relates to a method of using the additive composition of the present invention for controlling and inhibiting polymerization of monomers. In another embodiment, the present invention also relates to methods for controlling and inhibiting polymerization of monomers in a primary fractionator (or an ethylene plant), and for operating a primary fractionator, and for reducing fouling and polymer deposits in a primary fractionator, and to extend a run-length of a primary fractionator or of an ethylene plant.

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