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(54) Title: PREPARATION OF HIGH ASSAY DECABROMODIPHENYLALKANE PRODUCT WITH LOW OCCLUDED FREE BROMINE CONTENT

(57) Abstract: A high assay decabromodiphenylalkane product in which the alkylene group contains in the range of about 1-10 carbon atoms and has an occluded free bromine content of <500 ppm is prepared. The process comprises brominating, in a liquid phase reaction mixture, at least one α,ω -diphenylalkane having an alkylene group of 1-10 carbon atoms, with a limited excess of bromine, in the presence of an aluminum, aluminum halide or a ferric halide catalyst in which the original halogen atoms of such halides are chlorine atoms, bromine atoms, or both. The limited excess of bromine is such that the maximum excess amount of bromine used in conducting the reaction is about 20 mole % relative to the stoichiometric amount required to convert the amount of α,ω -diphenylalkane used to decabromodiphenylalkane. Crude high assay decabromodiphenylalkane product is prepared without use of heat treatment, oven ageing, or grinding or other forms of pulverization.



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