

PROCESS FOR PRODUCING OVER-BASED ALKALINE EARTH METAL PHENATE

ABSTRACT OF THE DISCLOSURE

A process for the production of an over based alkaline earth metal phenate (sulfurized, unsulfurized or a mixture thereof), in which the process comprises the steps of: effecting reactions among phenols, dihydric alcohols and an alkaline earth metal reagent (alkaline earth metal oxide or hydroxide or a mixture thereof), or among these compounds further mixed with sulfur and/or water; removing an excess of the dihydric alcohols and at least an excess of water by distillation; and subsequently treating resulting distillation residue with carbon dioxide, wherein the improvement resides in that the carbon dioxide treatment is carried out in the presence of water in an amount of from 0.01 to 1.0 mol per 1 mol of the alkaline earth metal reagent. Preferably, the carbon dioxide treatment is carried out in the presence of 0.1 to 0.7 mol sulfur and 0.1 to 1.0 mol water per 1 mol of the alkaline earth metal reagent.

The process of this invention is industrially advantageous because the alkaline earth metal phenate obtained by the process has a high basicity and an easily handleable low viscosity and is useful as a high quality detergent for a lubricating or fuel oil.