HIGH PRODUCTIVITY PROCESS FOR NON-PHENOLIC ETHOXYLATES

ABSTRACT OF THE DISCLOSURE

The present invention provides a process for the production of an ethoxylate involving charging a portion of product from a previous preparation (a “heel”) or an ethoxylate to a reactor, optionally, charging from about 0.2 wt.% to an amount equal or greater than the amount of heel of a $C_1 – C_{56}$ non-phenolic alcohol to the reactor, charging ethylene oxide to activate a double metal cyanide (“DMC”) catalyst, adding $C_1 – C_{56}$ non-phenolic alcohol simultaneously with ethylene oxide for a portion of the process and continuing addition of ethylene oxide following completion of the simultaneous $C_1 – C_{56}$ non-phenolic alcohol and ethylene oxide addition. The process of the present invention provides significant improvements in cycle time and safety in producing ethoxylates which may find use in or as surfactants.

Figure: None