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(54) Title: PROCESS FOR THE PRODUCTION AND PURIFICATION OF N-BUTYL ACRYLATE

WO 01/19773 A1

(57) Abstract: A process for the production of n-butyl acrylate (BuAcA) including the steps of esterifying acrylic acid (HAcA) with an n-butanol (n-BuOH) in a reaction zone, obtaining a condensate from the overhead vapors from the reaction zone which separates into organic and aqueous phases, feeding the organic phase comprising a major portion of BuAcA and minor portions of BuOH, water and light ends impurities to a finishing fractionation zone from which is obtained a side stream of a finished high purity BuAcA and an overhead condensate comprising BuAcA, BuOH, water, and light ends, recycling most of the overhead condensate from the finishing zone to the reaction zone, feeding the remainder of such condensate to a purge recovery zone together with a stream of makeup water, obtaining an overhead condensate from the purge recovery zone which separates into organic and aqueous phases, each containing a portion of light ends produced in the reaction, recycling a portion of the organic phase as reflux to the purge recovery zone and discarding the remainder, and recycling at least a portion of the aqueous phase as feed to the purge recovery zone and discarding any remainder. Discarding of portions of the two phases of the overhead condensate has the effect of preventing or retarding the buildup of light ends in the system, while the amounts of water in the water makeup stream and the recycled portion of the aqueous phase of the overhead condensate to the purge recovery zone forms low-boiling azeotropes with components of the light ends thus facilitating separation of the light ends from the BuAcA and BuOH in the purged portion of the finishing zone overhead.