Title (en)
INTEGRATED PROCESS FOR PREPARING TRIOXANE FROM FORMALDEHYDE

Title (de)
INTEGRIERTES VERFAHREN ZUR HERSTELLUNG VON TRIOXAN AUS FORMALDEHYD

Title (fr)
PROCEDE INTEGRE DE PRODUCTION DE TRIOXANE A PARTIR DE FORMALDEHYDE

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Abstract (en)
[origin: WO2007014853A1] The invention relates to an integrated process for preparing trioxane from formaldehyde, comprising the steps of: a) feeding a stream A1 comprising water and formaldehyde and a recycle stream B2 consisting essentially of water and formaldehyde to a trioxane synthesis reactor and allowing them to react to obtain a product stream A2 comprising trioxane, water and formaldehyde; b) feeding stream A2 to a first low-pressure distillation column and distilling it at a pressure of 0.1 to 2.5 bar to obtain a stream B1 which has been enriched in trioxane and additionally comprises water and formaldehyde and the recycle stream B2 which consists essentially of formaldehyde and water; c) feeding stream B1 and a recycle stream D1 which comprises trioxane, water and formaldehyde to a second low-pressure distillation column and distilling them at a pressure of 0.1 to 2.5 bar to obtain a stream C1 comprising predominantly trioxane and additionally formaldehyde and water, and a stream C2 consisting essentially of formaldehyde and water; d) feeding stream C1 to a high-pressure distillation column and distilling it at a pressure of 0.2 to 17.5 bar to obtain the recycle stream D1 and a product stream D2 consisting essentially of trioxane, wherein a removal of the low boilers present in streams B1 and/or C1 can be undertaken between steps b) and c) or c) and d).

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