

Title (en)

METHOD FOR PRODUCING TRIOXANE FROM TRIOXYMETHYLENE GLYCOL DIMETHYL ETHER

Title (de)

VERFAHREN ZUR HERSTELLUNG VON TRIOXAN AUS TRIOXYMETHYLENGLYKOLDIMETHYLETHER

Title (fr)

PROCÉDÉ DE PRODUCTION DE TRIOXANE À PARTIR D'ÉTHER DIMÉTHYLIQUE DU TRIOXYMÉTHYLÈNE GLYCOL

Publication

EP 2142525 A1 20100113 (DE)

Application

EP 08718288 A 20080327

Priority

- EP 2008053668 W 20080327
- EP 07105347 A 20070330
- EP 08718288 A 20080327

Abstract (en)

[origin: WO2008119742A1] The invention relates to a method for producing trioxane from trioxymethylene glycol dimethyl ether (POMDME_{n=3}) by reacting trioxymethylene glycol dimethyl ether in the presence of an acidic catalyst and subsequently processing the reaction mixture by distillation. The method comprises the following steps: a) feeding trioxymethylene glycol dimethyl ether (POMDME_{n=3}) or a mixture containing trioxymethylene glycol dimethyl ether to a reactor and reacting the substance in the presence of an acidic catalyst to give a mixture (a) containing trioxane, formaldehyde, water, methylene glycol (MG), polyoxymethylene glycols (MG_{n>1}), methanol, hemiformals (HF), methylal (POMDME_{n=1}) and polyoxymethylene glycol dimethyl ether (POMDME_{n>1}); b) separating the reaction mixture (a) by distillation to give a low-boiling fraction (b1) containing trioxane, formaldehyde, water, methylene glycol, methanol, hemiformal (HF_{n=1}), methylal and dioxymethylene glycol dimethyl ether (POMDME_{n=2}) and a high-boiling fraction (b2) containing polyoxymethylene glycols (MG_{n>1}), hemiformals (HF_{n>1}) and polyoxymethylene glycol dimethyl ether (POMDME_{n>2}); c) separating the low-boiling fraction (b1) by distillation to give a low-boiling fraction (c1) containing formaldehyde, water, methylene glycol, methanol, hemiformal (HF_{n=1}), methylal and dioxymethylene glycol dimethyl ether (POMDME_{n=2}) and a high-boiling fraction (c2) containing trioxane.

IPC 8 full level

C07D 323/06 (2006.01)

CPC (source: EP US)

C07D 323/06 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008119742 A1 20081009; CA 2681976 A1 20081009; CN 101668754 A 20100310; EP 2142525 A1 20100113; US 2010130756 A1 20100527

DOCDB simple family (application)

EP 2008053668 W 20080327; CA 2681976 A 20080327; CN 200880012286 A 20080327; EP 08718288 A 20080327; US 59396408 A 20080327