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Oxygenated, high-octane-number composition for fuel, and method for its preparation.

The invention relates to an oxygenated, high-octane-number composition for fuel, constituted by methanol, methyl-tert-butyl ether (MTBE) and tert-butyl alcohol (TBA).

The invention relates also to a method for the preparation of the above-said composition, consisting in submitting a C₄-charge, free from butadiene, and containing isobutene at a concentration of from 10 to 55% by weight to one or more hydration treatment(s), in the presence of an acidic catalyst of Amberlyst 15 type, in separating TBA from the other inert components, which do not react in the hydration reaction, and from residual isobutene, in introducing said other isobutene-containing, inert components into an isobutene etherifying section, wherein isobutene reacts with methanol and forms MBTE, in separating, by fractionation, MTBE with methanol and possible traces of TBA from the other components, and in finally mixing TBA with the MTBE-methanol mixture. The feed to the hydration reactor (water and olefins) is rendered homogeneous by means of the partial recycle of TBA or of TBA-containing mixtures.

EP 0 227 176 A3



EP 86 20 2265

DOCUMENTS CONSIDERED TO BE RELEVANT							
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)				
X	EP-A-0 049 921 (STAMICARBON) * Claims 1-5,9,15; page 6, lines 10-15 *	1	C 10 L 1/02				
A	US-A-4 334 890 (KOCHAR et al.) * Claim 1 *	1,3					
A	GB-A- 487 772 (CALLIS et al.)						
A	EP-A-0 064 253 (VEBA OEL) * Claims 1,2,4,5 *	1					
A	EP-A-0 121 089 (UNION RHEINISCHE BRAUNKOHLN KRAFTSTOFF AG) * Example 4 *	1					
A	EP-A-0 171 440 (UNION RHEINISCHE BRAUNKOHLN KRAFTSTOFF AG) * Example 6 *	1					
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)				
			C 10 L				
The present search report has been drawn up for all claims							
Place of search THE HAGUE		Date of completion of the search 23-12-1987	Examiner DE HERDT O.C.E.				
<table border="0"><tr><td>CATEGORY OF CITED DOCUMENTS</td><td>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</td></tr><tr><td>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</td><td></td></tr></table>				CATEGORY OF CITED DOCUMENTS	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	
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