

90-275076/36 A97 E18 H04 CALI 17.02.89  
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 17.02.89-US-311972 (23.08.90) C07c-05/22  
 Lubricating oil prodn. from olefin feeds - by isomerisation on  
 alumino-phosphate mol. sieve catalyst  
 C90-118884 R(AT BE CH DE DK ES FR GB IT LU NL SE) N(AU  
 CA JP)

Prodn. of C<sub>20+</sub> lubricating oils from olefin feeds is effected  
 by isomerising the feed over a catalyst comprising:  
 (a) an intermediate-pore-size non-zeolitic molecular  
 sieve (I) contg. tetrahedral AlO<sub>2</sub> and PO<sub>2</sub> units; and  
 (b) at least one Group VIII metal.

#### ADVANTAGES

The prods. have a low pour point, a high V.I., a low  
 viscosity for their boiling range (giving reduced frictional  
 resistance, reduced engine wear and increased fuel  
 efficiency), high oxidative and thermal stability, and low  
 volatility.

#### PREFERRED CONDITIONS

Isomerisation is effected at 200-475 deg. C and 15-2000  
 psig, with a LHSV of 0.05-20.

The prod. is hydrofinished and opt. blended with an oil

A(12-W2A) E(10-J2C3) H(4-E, 7-A, 7-G4, 7-G6) N(1-C1, 2,  
 3-C, 3-D, 3-F, 4-B)

selected from poly-alpha-olefins, mineral oils and isomerised  
 petroleum waxes.

#### PREFERRED CATALYSTS

(I) is a silicoaluminophosphate, esp. SAPO-11, SAPO-31  
 or SAPO-41. The Group VIII metal is Pt, Pd, Mo, Ni, V, Co,  
 W and/or Zn (sic), esp. Pt and/or Pd, and is present in an  
 amt. of 0.01-10 (esp. 0.2-5) wt.%. (37pp367SLDwgNo0/0).

(E) ISR: US4440871 US4650917 US4686029 US4689138  
 US4710485 US4740650 US4788378 US4824554