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EXXON RES & ENG CO

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Lubricating oil prodn. by wax isomerisation - using catalyst
comprising palladium on fluorided alumina

C89-079546 R(BE DE ES FR GB IT NL)

H(4-A7, 4-E, 4-F2A, 4-F2E) N(1-C2, 2-F2, 4-D)

Prodn. of lube oil base stocks or blending stocks is effected by isomerisation of wax using a catalyst comprising Pd on a fluorided Al_2O_3 or Al_2O_3 -contg. support.

ADVANTAGE

The catalysts give higher dewaxed oil yields than catalysts comprising Pt on fluorided Al_2O_3 .

PREFERRED CONDITIONS

The feed is a slack wax or synthetic wax, esp. a light paraffinic wax boiling in the 300-580°C range or a heavy microwax with a substantial fraction boiling above 600°C.

The catalyst comprises 0.1-5 (esp. 0.1-1) wt. % Pd on gamma- Al_2O_3 contg. 1-11 (esp. 2-8) wt. % F.

EXAMPLE

A 0.61% Pd/7.6% F/ Al_2O_3 catalyst was used to hydroiso-

merise a Fischer-Tropsch wax (85.5% 700°F+) at 1000 psig and 0.45 LHSV. At 665°F and an H_2 rate of 5040 scf/bbl, the conversion to 550°F- was 8.6 wt. % and the yield of dewaxed oil was 59.0 wt. %. Using a similar Pt catalyst at 657°F and 7130 scf/bbl, the conversion was 9.1% and the yield was 48.9%. (9pp367CGDwgNo0/1).
(E) ISR: No Search Report.

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