

ABSTRACT

(Figure 1)

ISOPARAFFIN-OLEFIN ALKYLATION

A novel alkylation catalyst is described which is used in processes for alkylating olefin hydrocarbons with isoparaffin hydrocarbons to produce high octane alkylate products suitable for use as blending components of gasoline motor fuel. The novel catalyst comprises a mixture of a hydrogen halide, a sulfone and water and has suitable corrosion properties which permit its utilization in alkylation process systems. The novel alkylation catalyst is utilized in a novel process for alkylating olefin hydrocarbons with isoparaffin hydrocarbons.