CLAIMS

1. A process for catalytic cracking of a glyceride oil, the process comprising:

(A) contacting the glyceride oil with a cracking catalyst comprising at least 80 wt. % of a phosphorus-containing ZSM-5 light olefins additive at catalytic cracking conditions to obtain a product stream comprising hydrocarbons, wherein the phosphorus-containing ZSM-5 light olefins additive comprises:

(a) 25 to 50 wt. % of ZSM-5;

(b) 3 to 15 wt. % of phosphorus, measured as P_2O_5;

(c) 5 to 45 wt. % of a clay; and

(d) 5 to 20 wt. % of a binder; and

(B) separating at least one hydrocarbon fraction from the product stream.

2. The process of claim 1, wherein the cracking catalyst further comprises a large-pore molecular sieve component.

3. The process of claim 2, wherein the large-pore molecular sieve component is selected from a *BEA framework type zeolite and a FAU framework type zeolite.

4. The process of claim 2, wherein the cracking catalyst comprises from 0.1 to 20 wt. % of the large-pore molecular sieve component.

5. The process of claim 1, wherein the glyceride oil comprises at least 80 wt. % of triglycerides.

6. The process of claim 1, wherein the glyceride oil is selected from rapeseed oil, colza oil canola oil, tall oil, sunflower oil, soybean oil, hempseed oil, cottonseed oil, corn oil, olive oil, linseed oil, mustard oil, palm oil, peanut oil, castor oil, coconut oil,

camellia oil, jatropha oil, a microbial oil, animal fats, fish oil, lard, tallow, train oil, recycled fats from the food industry, and any combination thereof.

7. The process of claim 1, wherein the process is a fluid catalytic cracking process.

8. The process of claim 1, wherein the catalytic cracking conditions include a temperature of from 450°C to 650°C; a pressure of from 100 kPa to 1100 kPa; and a catalyst-to-oil mass ratio of from 3 to 12.

9. The process of claim 1, further comprising fractionating the product stream into one or more hydrocarbon fractions.

10. The process of claim 1, wherein the one or more hydrocarbon streams is selected from light olefins or gasoline.