

UNITED STATES PATENT OFFICE.

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PROCESS OF CRACKING MINERAL CRUDE OILS.

No Drawing.

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My invention relates to a process of cracking mineral crude oils to produce a high yield of motor fuel, using aluminum chloro sulphate ($AlClSO_4$) as a catalyzing agent. The aluminum chloro sulphate is superior to aluminum chloride now largely used for this purpose for the reason that it is less expensive and but slightly hygroscopic while aluminum chloride is intensely so.

My invention consists in the steps and process hereinafter described and claimed.

I add from two (2) to five (5) percent of aluminum chloro sulphate, by weight, to the crude mineral oil to be cracked, the quantity depending upon the sulphur and nitrogen contents. The mineral oil is heated to temperatures used in the cracking process varying from $70^\circ C.$ to $300^\circ C.$ or even higher and any suitable or preferred pressure as is now the common practice may be used, though most mineral oils when treated with aluminum chloro sulphate may be cracked at normal pressure. The oil is then subjected to any preferred process of distilling and condensation of the distillate

and fractionating of the same to produce motor fuel.

The yield of the motor fuel or gasoline obtained in my cracking process compares favorably with those using aluminum chloro-ride.

Various changes may be made in the steps of the process without departing from the spirit of my invention as claimed.

I claim:

1. A process of cracking crude mineral oils comprising adding aluminum chloro sulphate to crude mineral oil, heating the oil to cracking temperature, distilling the oil, and condensing the distillate.

2. A process of cracking crude mineral oils comprising adding aluminum chloro sulphate from 2 to 5 percent by weight to crude mineral oil, heating the oil to cracking temperature, distilling the oil, and condensing the distillate.

In testimony whereof I have signed my name to this specification.

HENRY BLUMENBERG, Jr.