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MICROFILM REEL: 5939-10

1. Peroptan, a synthetic gasoline for aviation fuel is the condensation product of n-propyl chloride with isobutane. The condensation is made in the presence of aluminum chloride and gives a branched, 7-carbon atom hydrocarbon for fuel purposes for air craft engines.

Peroptan is claimed to be made in 90 per cent theoretical yield and to have an octane number of at least 98.

The propyl chloride used in the synthesis of peroptan is made from liquid chlorine and liquid propane in the presence of light.

Peroptan has a boiling range of 80 to 180° centigrade.

Peroptan is said to be equal in octane reading to the gasoline produced by the alkylation process as practiced in Germany.

2. Preparation of di-n-ketone peroxide.
3. Graphite peroxide (C₂O).
4. Conference on gas manufacturing in Ludwigshafen:
 - Dehydrogenation of n-butane
 - Dehydrogenation of isobutane
 - Catalyst preparation
 - Butylene concentration
 - Isomerization of n-butane.
 - Alkylation of isobutane with various olefins
 - BF₃ and HF catalysts
 - Alkylation of benzene
 - Polymer gasolines
5. Recovery of propylene by catalytic stepwise dehydrogenation of butane-propane mixtures.
6. Summary of a conference on gas manufacture at Leuna covering same topics as No. 4 above.

- 7 Isomerization of n-butane of alumina chloride.
- 8 A series of papers on carbon monoxide hydrogen reaction to alcohols and carbons.
- 9 Experiments with iron catalysts for the Fischer-Tropach reaction.
- 10 Method for the removal of fog, soot, and dust from gases. Patent memorandum for filter devices.
11. Research on GM and combustible insulating materials and explosiveness of GM with Iporka, Desmosit and T. Kohle.
12. An extensive survey of syntheses using acetylene as starting material.
13. Preparation of high anti-knock gasoline by the alkylation of isobutane with butene-1, pilot-scale plant.
14. Synthesis of fatty acid esters and fatty acids by the action of carbon monoxide with olefins and alcohols, and olefins and water.

REEL H

Identical with Roll G above.

July 31, 1945