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(71) Applicant: **TOTAL RESEARCH & TECHNOLOGY
FELUY** [BE/BE]; Zone Industrielle C, B-7181 Seneffe
(BE).

(72) Inventors: **VERMEIREN, Walter**; Winningstraat, 4,
B-3530 Houthalen (BE). **ADAM, Cindy**; Rue des Reines
des Prés 7, B-5100 Wierde (BE).

(74) Agent: **RABOIN, Jean-Christophe**; Zone Industrielle C,
7181 SENEFFE (BE).

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(54) Title: HYDRODYNAMIC CAVITATION PROCESS TO PROTECT CATALYTIC PROCESSES USED TO DEOXYGENATE
COMPLEX MIXTURES OF NATURAL OCCURRING FATS & OILS INTO OXYGEN-FREE HYDROCARBONS

(57) Abstract: The present invention relates to the production of high value bio- chemicals, in particular bio-paraffins, bio-LPG, bio-naphtha, bio-jet and bio-distillates in an integrated bio-refinery from complex mixtures of natural occurring fats & oils. The present invention discloses a process for the production of such bio- chemicals, from natural occurring oil (s) containing acyl-containing compounds having 10 to 24 carbons including fatty acid esters and free fatty acids, and other components including impurities. Natural occurring oil(s) is/are refined before treatment in a hydroprocessing step. The refining used in the present invention includes a hydrodynamic cavitation to remove impurities which might deteriorate the subsequent hydroprocessing step.



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