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(71) Applicant *(for all designated States except US)*: **DEGUSSA-HÜLS AKTIENGESELLSCHAFT** [DE/DE]; Weissfrauenstrasse 9, 60311 Frankfurt/Main (DE).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **HOFEN, Willi** [DE/DE]; Südring 54, 63517 Rodenbach (DE). **THIELE, Georg** [DE/DE]; Julius-Leber-Strasse 6, 63450 Hanau (DE). **MÖLLER, Alexander** [DE/DE]; Philipp-Reis-Strasse 10, 63571 Gelnhausen (DE).

(74) Agent: **STERNAGEL, FLEISCHER, GODEMEYER & PARTNER**; Braunsberger Feld 29, 51429 Bergisch Gladbach (DE).

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(54) Title: PROCESS FOR THE EPOXIDATION OF OLEFINS

(57) Abstract: The present invention relates to a process for the working up of a product stream from the epoxidation of olefins that contains olefin, olefin oxide, water-miscible organic solvent and water, by separating this product stream into an overhead product containing olefin, olefin oxide and organic solvent, and into a bottom product containing organic solvent and water, wherein the separation takes place in a pre-evaporator with at most 5 theoretical separation stages, and 20 to 60% of the total amount of organic solvent introduced with the product stream is removed with the overhead product and the residue remains in the bottom product, as well as a process for the epoxidation of olefins that includes this working up stage.