

Title (en)
METHOD FOR EXTRACTION AND TRANSFORMATION BY TRANSESTERIFICATION OF PHTHALATES CONTAINED IN PVC PLASTICS MATERIALS

Title (de)
VERFAHREN ZUR EXTRAKTION UND UMWANDLUNG DURCH UMESTERUNG VON PHTHALATEN AUS PVC-KUNSTSTOFFEN

Title (fr)
PROCEDE D'EXTRACTION ET DE TRANSFORMATION PAR TRANSESTERIFICATION DE PHTALATES CONTENUS DANS DES PLASTIQUES PVC

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Application
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Abstract (en)
[origin: WO2022243043A1] The present invention relates to a method for obtaining a dialkyl phthalate and a reusable target PVC plastics material from a PVC feedstock containing at least one phthalate, comprising: a) solid-liquid extraction of the PVC feedstock in the form of particles by placing said particles of the PVC feedstock in contact with a solvent comprising a chemical molecule of the ester, ether, ketal or acetal type, of empirical formula $(C_nH_{2n+1}O)_mZ$, where $n < 4$ or $n > 8$, m is between 1 and 3, and Z is selected from R, COOR, CO, CR, CNRR', PO, P, SO, SO₂, COR or HCO, with R and R' being alkyl or aryl groups, producing a liquid phase enriched with said phthalate and a solid phase comprising PVC plastics material depleted of said phthalate; b) transforming said phthalate of said liquid phase into dialkyl phthalate of formula $C_6H_4(COOC_nH_{2n+1})_2$ by transesterification by means of said solvent; c) solid-liquid separation between the solid phase and the liquid phase, producing at least one solid stream comprising the PVC plastics material depleted of said phthalate in order to obtain said target PVC plastics material; d) liquid-liquid separation of the liquid phase, producing at least a first liquid effluent comprising said dialkyl phthalate and a second liquid effluent comprising said solvent.

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