

Title (en)
PROCESS FOR MANUFACTURE OF HIGH PURITY 1,1-DICHLOROTETRAFLUOROETHANE

Title (de)
VERFAHREN ZUR HERSTELLUNG VON NOCHREINEM 1,1-DICHLOR-TETRAFLUORETHAN

Title (fr)
PROCEDE DE PRODUCTION DE 1,1-DICHLOROTETRAFLUOROETHANE DE HAUTE PURETE

Publication
EP 0724553 A1 19960807 (EN)

Application
EP 94926570 A 19940901

Priority
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Abstract (en)
[origin: WO9512564A1] A process for producing CCl₂FCF₃ substantially free of CC1F₂CC1F₂ is disclosed. The process includes contacting a feed mixture consisting essentially of C₂Cl₃F₃ where the ratio of CCl₂FCCIF₂ to CCl₃CF₃ is at least about 1:9 with an isomerization catalyst to produce an isomerization product wherein there is less than about 50,000 parts by weight CCl₂FCC1F₂ per million parts CCl₃CF₃. The isomerization product is contacted with HF in the vapor phase in the presence of a fluorination catalyst comprising trivalent chromium at an elevated temperature below 400 DEG C selected to provide a fluorination product containing C₂Cl₂F₄ and C₂Cl₃F₃ wherein there is less than 10,000 parts by weight CCIF₂CCIF₂ per million parts by weight CCl₂FCF₃ and wherein the parts by weight CCl₂FCC1F₂ per million parts CCl₃CF₃ is greater than the parts by weight CC12FCC1F₂ per million parts CCl₃CF₃ in the isomerization product. The C₂Cl₂F₄ from the fluorination product is recovered; and C₂Cl₃F₃ from the fluorination product is recycled to the isomerization step along with an additional amount of CCl₂FCC1F₂ which is at least equal to the amount of C₂Cl₂F₄ recovered from the fluorination product and is sufficient to provide the desired feed mixture ratio of CCl₂FCC1F₂ to CCl₃CF₃.

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