

Title (en)  
PROCESS FOR THE OXIDATION OF WATER INSOLUBLE ORGANIC COMPOUNDS

Publication  
**EP 0442088 B1 19930421 (DE)**

Application  
**EP 90124224 A 19901214**

Priority  
DE 4001782 A 19900123

Abstract (en)  
[origin: DE4001782A1] Oxidn. of organic pollutants contg. C, H, O and other elements in bound form is effected by reaction with  $\text{HNO}_3$  at 150-350 deg.C and 6-350 bar. The process is characterised in that water-insol. chlorinated hydrocarbons are oxidised (SiC). Pref. chlorinated dibenzodioxins and chlorinated dibenzofurnas are oxidised. In an examples, the substance oxidised is (a) a substance called chlophen, (b) 1,1-dichloroethane, or (c) chloranil contg. 15ppm octachlorodibenzo-p-dioxin and 1.2ppm octachlorodibenzofuran. The reaction is effected in an autoclave at 30-100 bar. The  $\text{HNO}_3$  is used in an amt. of 2-40 (esp. 2.5-7) g per g of pollutant. In an example, a mixt. of 30g chlophen and 910g of 20%  $\text{HNO}_3$  was heated in a Ta autoclave at 280 deg.C and 86 bar for 2 hr. After cooling, the prod. comprised a clear aq. phase and no oily phase. The aq. phase had a COD of 2.4g/l and contained no chlorinated dibenzo-p-dioxins or dibenzofurans. @ (3pp Dwg.No.0/0).

IPC 1-7  
**A62D 3/00**; **C07B 33/00**

IPC 8 full level  
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CPC (source: EP US)  
**A62D 3/38** (2013.01 - EP US); **A62D 2101/22** (2013.01 - EP US); **A62D 2101/28** (2013.01 - EP US)

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EP0503387A1; US5232605A

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