

Title (en)

Process for the preparation of oxiranes substituted by halogen alkyl.

Title (de)

Verfahren zur Herstellung von halogenalkylsubstituierten Oxiranen.

Title (fr)

Procédé de préparation d'oxiranes substitués par des groupes halogénoalcoyle.

Publication

EP 0000554 A1 19790207 (DE)

Application

EP 78100456 A 19780720

Priority

DE 2734085 A 19770728

Abstract (en)

1. Process for the preparation of halogenoalkyl-substituted oxiranes from halogenoalkyl-substituted olefines and percarboxylic acids, characterised in that a chloroalkyl- or bromoalkyl-substituted monoolefine of the general formula see diagramm : EP0000554,P9,F1 wherein R1 and R4 independently of one another denote hydrogen, C1 - to C5 -alkyl, C5 - to C7 -cycloalkyl, monochloro-C1 - to C5 -alkyl, monobromo-C1 - to C5 -alkyl, dichloro-C1 - to C5 -alkyl, dibromo-C1 - to C5 -alkyl, monochloro-C5 - to C7 -cycloalkyl, monobromo-C5 - to C7 -cycloalkyl, dichloro-C5 - to C7 -cycloalkyl or dibromo-C5 - to C7 -cycloalkyl and R2 and R3 independently of one another represent hydrogen, C1 - to C5 -alkyl, monochloro-C1 - to C5 -alkyl, monobromo-C1 - to C5 -alkyl, dichloro-C1 - to C5 -alkyl and dibromo-C1 - to C5 -alkyl, or wherein the radicals R2 and R3 , together with the carbon atoms of the C=C double bond, can form a ring with up to 12 carbon atoms, at least one of the radicals R1 to R4 being a dichloro or dibromo radical of the type mentioned, or at least two of the radicals R1 to R4 being a chlorine- or bromine-containing radical of the type mentioned, and the chloroalkyl- or bromoalkyl-substituted monoolefine containing at least 4 carbon atoms, is reacted with a solution of a percarboxylic acid containing 3 to 4 carbon atoms in a chlorinated hydrocarbon containing 1 to 8 carbon atoms at a molar ratio of monoolefine to percarboxylic acid of 1.1 : 1 to 10 : 1 and at a temperature of 30 degrees C to 100 degrees C, the percarboxylic acid containing up to 5% by weight of water and up to 2% by weight of hydrogen peroxide, and the percarboxylic acid solution used for the reaction having a mineral acid content of below 50 ppm.

Abstract (de)

Die vorliegende Erfindung betrifft ein verbessertes Verfahren zur Herstellung von halogenalkylsubstituierten Oxiranen aus halogenalkylsubstituierten Olefinen und Percarbonsäuren in organischer Lösung in hohen Ausbeuten und großer Reinheit welches dadurch gekennzeichnet ist, daß man ein chloralkyloder bromalkylsubstituiertes Monoolefin der allgemeinen Formel <IMAGE> mit einer Lösung einer 3 bis 4 Kohlenstoffatome enthaltenden Percarbonsäure in einem chlorierten, 1 bis 8 Kohlenstoffatome enthaltenden Kohlenwasserstoff bei einem Molverhältnis von Monoolefin zu Percarbonsäure von 1,1 : 1 bis 10 : 1 und bei einer Temperatur von 30 bis 100°C umsetzt.

IPC 1-7

C07D 303/08; **C07D 301/14**

IPC 8 full level

C07C 17/02 (2006.01); **C07D 301/14** (2006.01); **C07D 303/08** (2006.01)

CPC (source: EP)

C07C 17/02 (2013.01); **C07D 301/14** (2013.01); **C07D 303/08** (2013.01)

Citation (search report)

- [X] FR 2300085 A1 19760903 - INTEROX CHEMICALS LTD [GB]
- [P] FR 2369273 A1 19780526 - PROPYLOX SA [BE]
- [P] FR 2369274 A1 19780526 - PROPYLOX SA [BE]

Cited by

EP0019322A1; DE102021123420A1; DE102023106792A1; EP1717884A1

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