

US007098347B2

US 7,098,347 B2

Aug. 29, 2006

(12) United States Patent

Lambrecht et al.

(54) PROCESS FOR THE PREPARATION OF 1-HYDROPEROXY-16-OXABICYCLO [10.4.0]HEXADECANE

(75) Inventors: **Stefan Lambrecht**, Holzminden (DE); **Werner Marks**, Brevörde (DE); **Hans-Juergen Topp**, Holzminden (DE); **Norbert Richter**, Beverungen (DE);

Walter Kuhn, Holzminden (DE)

(73) Assignee: symrise GmbH & Co. KG,

Holmzinden (DE)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 10/939,012

(22) Filed: Sep. 10, 2004

(65) Prior Publication Data

US 2005/0085536 A1 Apr. 21, 2005

(30) Foreign Application Priority Data

Oct. 16, 2003 (DE) 103 48 168

(51) Int. Cl. C07D 311/94 (2006.01) C07D 313/00 (2006.01) A61Q 13/00 (2006.01)

(52) **U.S. Cl.** **549/266**; 549/396

See application file for complete search history.

(56) References Cited

(10) Patent No.:

(45) Date of Patent:

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

EP 0 424 787 A 5/1991 EP 1 375 491 A1 1/2004

OTHER PUBLICATIONS

Chemical Abstracts 55:141087 (1961).* Roempp: "Chemie Lexicon, 10. Auflage" 1998, Georg Thieme Verlag, Stuttgart, DE, XP002318781.

* cited by examiner

Primary Examiner—Bernard Dentz (74) Attorney, Agent, or Firm—Akerman Senterfitt; Stephan A. Pendorf

(57) ABSTRACT

Process for the preparation of 1-hydroperoxy-16-oxabicyclo [10.4.0]hexadecane (DDP-OOH), wherein 13-oxabicyclo [10.4.0]hexadec-1(12)-ene (DDP) and hydrogen peroxide are reacted in a diluent in the presence of a strong acid, the diluent has a pKa value of greater than or equal to 4.5 and the strong acid has a pKa value of less than or equal to 1.5, wherein after the reaction has taken place, the strong acid is neutralized with at least 0.9 molar equivalent of a base.

18 Claims, No Drawings