

EUROPEAN PATENT APPLICATION

Application number: 85309075.1

Int. Cl.⁴: **C 07 C 69/28**
C 07 C 67/08, C 11 D 3/39

Date of filing: 12.12.85

Priority: 14.12.84 US 681983

Date of publication of application:
25.06.86 Bulletin 86/26

Date of deferred publication of search report: 01.07.87

Designated Contracting States:
BE CH DE FR GB IT LI LU NL SE

Applicant: **The Clorox Company**
1221 Broadway
Oakland California 94612(US)

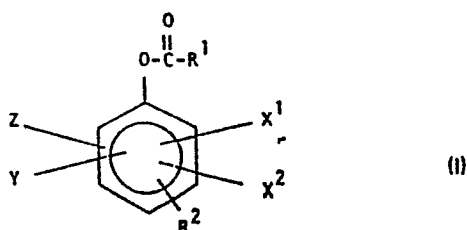
Inventor: **Fong, Ronald Augustus**
513 Avanel Drive
Modesto California 95356(US)

Inventor: **Kong, Stephen Bradford**
3318 Washington Court
Alameda California 94501(US)

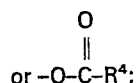
Representative: **Ford, Michael Frederick et al,**
MEWBURN ELLIS & CO. 2/3 Cursitor Street
London EC4A 1BQ(GB)

Phenylene mono- and diester peracid precursors.

The invention provides novel peracid precursors representative of which is the structure:

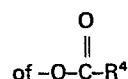


wherein R¹ is alkyl of 1 to 20 carbon atoms; R² is OH, -O-R³,



and X¹, X², Y and Z are individually selected from H, SO₃, CO₂, NO₂, NR₄⁵⁺, halogen, R⁶ and mixtures thereof:

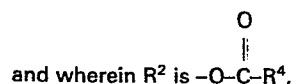
wherein R³ of -O-R³ is alkyl of 1 to 20 carbon atoms; R⁴



is alkyl of 1 to 20 carbon atoms; R⁵ of NR₄⁵⁺ is selected from H, alkyl of 1 to 24 carbon atoms and mixtures thereof; and R⁶

is alkyl of 1 to 20 carbon atoms.

In one embodiment of the invention, the novel peracid precursors are combined with a source of hydrogen peroxide and sufficient quantities of buffer to impart an alkaline pH when the composition is placed in aqueous solution. Preferred embodiments of the invention include wherein R² is hydroxy, and R¹ is alkyl of 1 to 20 carbon atoms (monoester);



and R¹ and R⁴ are alkyls of 1 to 20 carbon atoms (diester) and may be either symmetrical (i.e., R¹ = R⁴) or mixed (i.e., R¹ ≠ R⁴). The mixed diester embodiment appears to provide benefits of mixed hydrophobic-hydrophilic peracid generation to oxidize both hydrophobic and hydrophilic soils. Various detergent adjuncts known to those skilled in the art may be added, such as surfactants, builders, fragrances, antimicrobial compounds and the like.



European Patent
Office

EUROPEAN SEARCH REPORT

0185522

Application number

EP 85 30 9075

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
X	FR-A-1 375 960 (J.R. GEIGY) * Page 1 *	1,2	C 07 C 69/28 C 07 C 67/08 C 11 D 3/39 D 06 L 3/02 //
X	US-A-3 462 468 (W.E. TAYLOR et al.) * Column 2; claims *	1-3	
X	DE-A-2 038 522 (J.R. GEIGY) * Claims *	1,2	
X	US-A-3 624 135 (M.S. KABLAOUI) * Claims *	1-3	
X	US-A-3 624 136 (M.S. KABLAOUI) * Claims *	1-3	
X	US-A-3 631 227 (M.S. KABLAOUI) * Claims *	1-3	TECHNICAL FIELDS SEARCHED (Int. Cl. 4) C 07 C 69/00 C 11 D 3/00
X	GB-A-1 316 739 (TEXACO DEVELOPMENT CORPORATION) * Claims *	1-3	
X	US-A-4 036 773 (OKORODUDU) * Claims *	1-2	
X	US-A-3 969 383 (DEXTER et al.) * Claims *	1-2	
The present search report has been drawn up for all claims			

Place of search
THE HAGUE

Date of completion of the search
24-03-1987

Examiner
VAN GEYT J.J.A.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons
& : member of the same patent family, corresponding document



DOCUMENTS CONSIDERED TO BE RELEVANT			Page 2
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	GB-A-2 073 197 (SUNTECH) * Claims *	1-3, 8-11	
X	EP-A-0 060 092 (SUNSTAR) * Claims *	1-3, 8, 9	
X	HOUBEN-WEYL: "Methoden der organischen Chemie", vol. 8, 4th edition, "Sauerstoffverbindungen III", pages 547-549, Georg Thieme Verlag, Stuttgart, DE	23	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
Place of search THE HAGUE		Date of completion of the search 24-03-1987	Examiner VAN GEYT J.J.A.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			