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(54) Laundry compositions containing peroxyacid bleach and perfume particles

Waschmittelzusammensetzungen, die Peroxysäure-Bleiche und Riechstoff enthalten

Compositions de lavage contenant des agents de blanchèssment et des particules de parfum
péroxyacidiques

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(56) References cited:

EP-A- 0 214 789	EP-A- 0 294 206
BE-A- 871 243	FR-A- 1 558 480
FR-A- 2 333 041	GB-A- 2 066 839
GB-A- 2 140 820	US-A- 4 020 156

- **"Waschmittel" by H.Stache and H. Grossmann,**
1985, pages 71, 73
- **Kosmetika, Aerosole, Riechstoffe, 53 (1980)**
pages 159-161
- **S.Ö.F.W., 94 (1968) pages 431-432**

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DescriptionFIELD OF THE INVENTION

5 The invention pertains to granular laundry detergent or bleaching compositions comprising a peroxyacid bleach and perfumed silica particles. The particles protect the perfume from oxidation by the bleach during storage and use of the composition. The invention thereby provides improved product odor, odor during the laundry process, and delivery of perfume to fabrics. The perfume particles are preferably admixed with detergent or bleach granules to provide finished granular detergent or bleach compositions containing peroxyacid bleaches.

BACKGROUND OF THE INVENTION

15 Perfumes are a desirable part of the laundry process. They are used to cover up the chemical odors of the cleaning ingredients and provide an aesthetic benefit to the wash process and, preferably, the cleaned fabrics. Perfumes are often added directly to laundry compositions, such as by spraying the perfume onto finished compositions. However, perfumes are, in general, volatile and many perfume ingredients can be destroyed or damaged by contact with cleaning ingredients, especially alkali and bleaches. To minimize direct contact between perfume and bleach components in laundry compositions, bleaches are sometimes admixed after perfume spray-on. Even this does not avoid oxidation of perfumes by bleaches, particularly when reactive bleaches such as peroxyacids are present.

20 One solution to this incompatibility problem is encapsulation of the perfume. This increases the expense and complexity of formulation and does not always provide sufficient protection.

It is known in the food industry to put flavors onto silica gel particles to form dry, flowable flavor powders. Flavor oil to silica gel ratios of up to 3:1 can be used. When the particles are added to water, the flavor is released. However the art has not recognized that silica particles can be used to protect perfumes from peroxyacid bleaches present in laundry compositions.

25 US-4 020 156 discloses crystal beads which contain an odor releasing material coated on the surface of a beaded or prilled water soluble material such as urea. These crystal beads exhibit a slow release of fragrance under anhydrous or dry conditions without the carrier being dissolved and exhibit a rapid release of fragrance when wetted.

30 EP-A-0 214 789 discloses a dry diperacid based bleach composition comprising a fragrance. The fragrance is protected against the oxidation by the diperacid by encapsulating them in polymeric materials or having them absorbed into inert materials, such as starches or sugars or mixture thereof.

GB-A-2 066 839 discloses a method to manufacture perfumed detergents, especially powdered ones. The perfume ingredient is sorbed on a porous carrier to decrease the volatility of said perfume and to enhance the resistance of said perfume to chemical changes. A long-termed durability of sent is achieved during the storing in dry condition.

35 The use of perfume in detergent compositions for covering malodour of the washing liquor and/or for giving a pleasant and fresh smell to the wash laundry is disclosed in BE-A-871243 as well as in "Waschmittel" by H. Stache and H. Großmann, 1985, page 71 and 73.

In Kosmetika, Aerosole, Riechstoffe, 53 (1980) pages 159-161 is disclosed the use of the synthetic silicic acid AEROSIL as a carrier for aroma oils.

40 In S.Ö.F.W., 94 (1968) pages 431-432 is described the use of the porous amorphous silicic acid SYLOID 244 as a carrier material for substances such as vitamins, ethereal oils, essences and aromas in order to provide storage stable substances which upon contact with water will be released.

In FR-A-2,333,041 is disclosed the use of encapsulated perfume components which deposit onto fabrics upon a washing process and which upon use of the laundered fabric will release the perfume.

SUMMARY OF THE INVENTION

45 The present invention is directed to granular laundry detergent or bleaching compositions containing a peroxyacid bleach and perfume particles in which the perfume is adsorbed onto certain silica particles. The silica particles are preferably incorporated into finished laundry detergent or bleaching compositions containing peroxyacid bleach, although the perfume particles and bleach can be used as is, such as in a laundry booster product. The silica particles have a diameter of from 0.001 micron to 15 microns and are present at a level to provide from 0.001% to 5% perfume by weight in the laundry detergent or bleaching compositions.

55 In addition to separating and protecting the perfume from the bleach, it is believed that the silica particles deposit on fabrics and enhance delivery of the perfume to the fabrics. The use of the dry flowable perfume particles herein in laundry compositions containing peroxyacid bleach can thus be a cost effective and efficient way to deliver perfume during the laundry process and to fabric. In addition, it provides greater flexibility to formulate compositions that release perfume at desired stages of the laundry process. For example, different perfumes may be released during storage of

the composition, during its use, and during wearing of fabrics, all by selecting silica particles providing different degrees of perfume protection in the presence of peroxyacid bleach.

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to granular laundry detergent or bleaching compositions containing peroxyacid bleaches and perfumed silica particles.

The Perfume Particles

Silica particles are used as carriers for perfumes to make dry flowable perfume compositions. In general, it is desired that the total amount of perfume to achieve the desired impact level on dry fabric be adsorbed on the silica. The perfume oil adsorption is affected by particle size (microns) and surface area (m^2/g). In general, the amount of perfume that can be adsorbed per unit weight of silica is greater for small particle sizes. However, it is usually preferred not to load the perfume particles to the maximum loading. Perfume to silica particle weight ratios range from 0.001:1 to 6:1, depending upon the silica particle, with the preferred ratios being from 0.1:1 to 3:1, more preferably from about 0.2:1 to about 2.5:1.

The perfume can be sprayed or otherwise loaded onto the silica in various ways well known in the trade.

The perfume compositions of this invention are conventional compositions known in the art which are not also considered to be flavors. Selection of any perfume or amount of perfume is based solely on aesthetic considerations. Suitable perfume compositions can be found in the art including U.S. Pat. Nos. 4,145,184, Brain and Cummins, issued Aug. 26, 1980; 4,209,417, Whyte, issued Jan. 24, 1980; 4,515,705, Moeddel, issued May 7, 1985; and 4,152,272, Young, issued May 1, 1978. Desirably, the perfume compositions are relatively substantive to maximize the effect on fabrics, although nonsubstantive perfumes can also be used.

The perfumes are adsorbed onto silica particles, preferably fumed silica particles. The silica particles have a particle size of from 0.001 micron to 15 microns, preferably from 0.007 micron to 5 microns, most preferably from 0.007 to 2.5 microns, and even more preferably from 0.007 micron to 0.25 micron. The surface area is from 100 to 800 m^2/g , preferably from 200 to 400 m^2/g . It is desirable to use a larger amount of silica particles than the minimum amount necessary to adsorb the perfume composition. Use of lower ratios of perfume to silica provides improved protection of the perfume. In finished detergent or bleaching products, the silica particles are used at a level of from 0.001% to 5%, preferably from 0.001% to 2%, more preferably from 0.1% to 1%, to provide a level of perfume of from 0.001% to 1.5%, preferably from 0.01% to 0.5%, all by weight. These very small particle size silicas should be added in a way to minimize dusting, e.g., with an agglomerating aid and/or dust suppressor. The dust suppressor should not be water since that will release the perfume prematurely.

Silica gel particles include Syloid[®] Silicas such as Numbers: 72; 74; 221; 234; 235; 244; etc. Syloid[®] silicas are available from W. R. Grace & Co., Davison Chemical Division, P.O. Box 2117, Baltimore, Maryland 21203. Such particles have surface areas of from 250 to 340 m^2/g ; pore volumes of from 1.1 to 1.7 cc/g; and average particle sizes of from 1 to 8 microns, preferably from 2.5 to 6 microns. Fumed silica particles have primary particle diameters of from 0.007 to 0.025 micron and include Cab-O-Sil[®] Numbers L-90; LM-130; LM-5; M-5; PTG; MS-55; HS-5; and EH-5. Cab-O-Sil[®] silicas are available from Cabot Corp, P.O. Box 188, Tuscola, Illinois 61953.

In a preferred aspect of this invention, the perfume silica particles can be used to release perfume when they are wetted, e.g., with an aqueous fluid. When the particles contact substrates such as fabrics, skin, absorbent materials, etc., they can be activated upon wetting. When the aqueous material is undesirable such as sweat, urine, menses, etc., the perfume can be either a masking aid or an aesthetically pleasing "signal" that other action is required.

The Peroxyacid Bleach

The peroxyacid can be a preformed peroxyacid, an inorganic persalt (e.g., sodium perborate), or a combination of an inorganic persalt and an organic peroxyacid precursor which is converted to a peroxyacid when the combination of persalt and precursor is dissolved in water. The organic peroxyacid precursors are often referred to in the art as bleach activators.

Preferably, the peroxyacid is a preformed peroxyacid. These bleaches are much more reactive with and destructive of perfume ingredients, particularly when in intimate mixture or contact, so that the perfume stability and delivery benefits provided by the present invention are greater than in the case where the bleach is an inorganic persalt or a persalt plus activator.

Examples of suitable organic peroxyacids are disclosed in U.S. Patents 4,374,035, Bossu, issued Feb. 15, 1983; 4,681,592, Hardy et al, issued July 21, 1987; 4,634,551, Burns et al, issued Jan. 6, 1987; 4,686,063, Burns, issued Aug. 11, 1987; 4,606,838, Burns, issued Aug. 19, 1986; and 4,671,891, Hartman, issued June 9, 1987. Examples of

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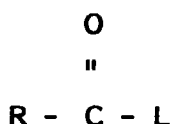
Effective amounts of peroxyacid bleach per unit dose of the composition of this invention used in typical laundry liquor, e.g., containing 64 liters of 16°-60°C water, provide from 1 ppm to 150 ppm of available oxygen (AvO), more preferably from 5 ppm to 50 ppm. The laundry liquor should also have a pH of from 7 to 10, preferably 7.5 to 9, for

effective peroxyacid bleaching. See Col. 6, lines 1-10, of U.S. Pat. No. 4,374,035.

Alternatively, the composition may contain a suitable organic precursor which generates one of the above peroxyacids when reacted with alkaline hydrogen peroxide in aqueous solution. The source of hydrogen peroxide can be any inorganic peroxygen compound which dissolves in aqueous solution to generate hydrogen peroxide, e.g., sodium perborate (monohydrate and tetrahydrate) and sodium percarbonate.

These compositions comprise:

- (a) a peroxygen bleaching compound capable of yielding hydrogen peroxide in an aqueous solution; and
- (b) a bleach activator having the general formula:



wherein R is an alkyl group containing from 5 to 18 carbon atoms wherein the longest linear alkyl chain extending from and including the carbonyl carbon contains from 6 to 10 carbon atoms and L is a leaving group, the conjugate acid of which has a pK_a in the range of from 6 to 13.

Detergent or Bleaching Compositions

The perfume particles of the present invention are formulated into laundry detergent or bleaching compositions. In a preferred embodiment, the bleaching compositions of the invention are also detergent compositions. Such compositions typically comprise deterative surfactants and/or detergency builders and, optionally, additional ingredients such as enzymes, fabric brighteners and the like. The perfume particles are preferably present in the detergent composition at a level of from 0.001% to 2%, and more preferably from 0.1% to 1%, by weight of the detergent composition. The remainder of the detergent composition will comprise from 1% to 50%, preferably from 10% to 25%, deterative surfactant, and from 10% to 80%, preferably from 20% to 50%, of a detergency builder, and, if desired, other optional laundry detergent components.

1. The Surfactant

Surfactants useful in the detergent compositions herein include well-known synthetic anionic, nonionic, amphoteric and zwitterionic surfactants. Typical of these are the alkyl benzene sulfonates, alkyl- and alkylether sulfates, paraffin sulfonates, olefin sulfonates, alkoxylated (especially ethoxylated) alcohols and alkyl phenols, amine oxides, alpha-sulfonates of fatty acids and of fatty acid esters, alkyl betaines, and the like, which are well known from the detergency art. In general, such deterative surfactants contain an alkyl group in the C_9 - C_{18} range. The anionic deterative surfactants can be used in the form of their sodium, potassium or triethanolammonium salts; the nonionics generally contain from 5 to 17 ethylene oxide groups. C_{11} - C_{16} alkyl benzene sulfonates, C_{12} - C_{18} paraffin-sulfonates and alkyl sulfates are especially preferred in the compositions of the present type.

A detailed listing of suitable surfactants for the detergent compositions herein can be found in U.S. Pat. No. 3,936,537, Baskerville, issued Feb. 3, 1976. Commercial sources of such surfactants can be found in McCutcheon's EMULSIFIERS AND DETERGENTS, North American Edition, 1984, McCutcheon Division, MC Publishing Company.

2. Detergency Builders

Useful detergency builders for the detergent compositions herein include any of the conventional inorganic and organic water-soluble builder salts, as well as various water-insoluble and so-called "seeded" builders.

Nonlimiting examples of suitable water-soluble, inorganic alkaline detergent builder salts include the alkali metal carbonates, borates, phosphates, polyphosphates, tripolyphosphates, bicarbonates, silicates, and sulfates. Specific examples of such salts include the sodium and potassium tetraborates, bicarbonates, carbonates, tripolyphosphates, pyrophosphates, and hexametaphosphates.

Examples of suitable organic alkaline detergency builder salts are: (1) water-soluble amino polyacetates, e.g., sodium and potassium ethylenediaminetetraacetates, nitrilotriacetates, and N-(2-hydroxyethyl)nitrilotriacetates; (2) water-soluble salts of phytic acid, e.g., sodium and potassium phytates; (3) water-soluble polyphosphonates, including sodium, potassium and lithium salts of ethane-1-hydroxy-1,1-diphosphonic acid, sodium, potassium, and lithium salts of methylenediphosphonic acid.

Seeded builders include such materials as sodium carbonate or sodium silicate, seeded with calcium carbonate or barium sulfate. Hydrated sodium Zeolite A having a particle size of less than 5 microns is particularly desirable.

A detailed listing of suitable detergency builders can be found in U.S. Pat. No. 3,936,537.

3. Optional Detergent Ingredients

Optional detergent composition components include enzymes (e.g., proteases and amylases), halogen bleaches (e.g., sodium and potassium dichloroisocyanurates), soil release agents (e.g., methylcellulose), soil suspending agents (e.g., sodium carboxymethylcellulose), fabric brighteners, enzyme stabilizing agents, color speckles, suds boosters or suds suppressors, anticorrosion agents, dyes, fillers, germicides, pH adjusting agents and nonbuilder alkalinity sources.

The following nonlimiting examples illustrate the compositions of the present invention.

All percentages, parts, and ratios used herein are by weight unless otherwise specified.

EXAMPLE I

The formulation hereinafter described is a perfumed silica gel made on a lab scale according to the following method.

A predetermined amount of silica gel is placed into a Cuisinart[®] food processor and a fluid bed state is achieved by the action of the processor's blades. Knowing the desired amount of perfume impact on dry fabric and, hence, the desired perfume to silica gel ratio, the premeasured perfume is added through a small orifice into the fluid bed of silica gel until all the perfume has been applied. Mixing is continued until the perfume and silica gel have reached a homogeneous dry flowable state.

Perfume/silica gel composition is prepared as follows:

Ingredient	% by Weight
Syloid [®] 234*	51.61
Perfume	48.39
Total	100.00

*Available from W. R. Grace & Co., Davison Chemical Division, P.O. Box 2117, Baltimore, Maryland 21203. Average particle size 2.5 microns on a weight basis and surface area of 250 m²/g.

Two different perfumes are as follows:

Substantive Perfume (A)		Relatively Nonsubstantive Perfume (B)	
Component	Wt. %	Component	Wt. %
Benzyl Acetate	5.0	Linalool	5.0
Benzyl Salicylate	10.0	Cedarwood Terpenes	20.0
Coumarin	5.0	Dihydro Myrcenol	10.0
Ethyl Maltol	5.0	Eugenol	5.0
Ethylene Brassylate	10.0	Lavandin	15.0
Galoxolide [®] (50%)	15.0	Ionone Alpha	5.0
Hexyl Cinnamic Aldehyde	20.0	Phenyl Ethyl Acetate	5.0
Inone Gamma Methyl	10.0	Citronellol	10.0
Lilial [®]	15.0	Geraniol	5.0
Patchouli	5.0	Phenyl Ethyl Alcohol	20.0
Total	100.0	Total	100.0

Other perfumed silica particles of the present invention are obtained when the above perfumes are added with an eye dropper to beakers containing Cab-O-Sil[®] EH-5 particles (average particle size of 0.007 microns and surface area of about 380 m²/g, available from Cabot Corporation, Cab-O-Sil Division, P. O. Box 188, Tuscola, Illinois 61953) in a weight ratio of perfume to silica particle of about 2:1, 2.5:1 and 3:1. After shaking the particles for about 1 minute, they become free flowing.

EXAMPLE II

Perfumed granular detergent and bleaching compositions are prepared by mixing the following ingredients.

<u>Ingredient</u>	<u>Parts</u>
1. <u>Spray-dried base granules</u>	
Sodium C ₁₂ linear alkyl benzene sulfonate	9.14
Sodium C ₁₄ -C ₁₅ fatty alcohol sulfate	3.92
Ethoxylated (6 avg.) C ₁₂ -C ₁₃ fatty alcohol	0.44
Sodium sulfate	31.60
Sodium silicate (2.0r)	2.40
Sodium polyacrylate (M.W. 4000)	0.98
Sodium tripolyphosphate	4.63
Sodium diethylenetriamine pentaacetate	0.40
Sodium carbonate	13.00
Optical brightener	0.36
Moisture	<u>3.50</u>
Total	70.41
2. <u>Admix</u>	
Sodium acid pyrophosphate	14.51
Peracid bleach*	10.66
Protease enzyme (Alcalase)	0.55
Perfume particles**	0.45
Silicone suds suppressor	0.28
Sodium perborate monohydrate	0.60
Sodium sulfate	<u>2.54</u>
Total	100.00

* Dry granular particles containing 24.00% nonylamide of peroxy succinic acid, 3.27% nonylamide of succinic acid, 12.00% boric acid, 5.21% C₁₃ linear alkylbenzene sulfonic acid, 55.29% sodium sulfate, 0.12% dipicolinic acid, 0.05% phosphoric acid, and 0.06% trisodium phosphate, prepared as described in U.S. Patents 4,374,035, Bossu, and 4,686,063, Burns.

** Perfumed particles of Example I. A preferred composition contains a weight ratio of perfume to the Cab-O-Sil^R EH-5 particles of about 2:1.

The silica particles protect the perfume from the peroxyacid bleach so that the perfume can be carried through the laundry washing and drying stages and delivered to the fabric.

EXAMPLE III

Perfumed particles are prepared by first mixing Syloid^R 234 with the perfumes of Example I to form the following perfume particle compositions according to a process similar to that of Example I:

Perfumed Syloid ^R	
Ingredient	% by Weight
Syloid ^R 234	70.6
Perfume	29.4
Total	100.00

The Syloid and the perfume are blended by first adding 30 lbs. of the Syloid^R 234 to a Littleford Model FM 130 D Mixer (Littleford Bros., Inc., 15 Empire Drive, Florence, Kentucky 41042). With the plow turned on, the perfume is slowly introduced dropwise through a 9.5 mm (3/8") pipe at a rate of approximately 0.908-1.135 kg/min (2-2.5 lbs/min). After 12.5 lbs. of perfume are added, the chopper is turned on for 15 seconds to evenly disperse the perfume before emptying the mixer.

These perfumed particles are used in the composition of Example II.

EXAMPLE IV

Other granular detergent and bleaching composition herein are prepared by mixing the following ingredients with the perfumed particles of Examples I and III.

Ingredient	Parts
1. <u>Spray-dried base granules</u>	
Sodium C ₁₃ linear alkyl benzene sulfonate	9.76
Sodium C ₁₄ -C ₁₅ fatty alcohol sulfate	4.18
Ethoxylated (6 avg.) C ₁₂ -C ₁₃ fatty alcohol	1.33
Sodium sulfate	13.15
Sodium silicate (1.6r)	4.21
Sodium polyacrylate (M.W. 4,000)	0.65
Sodium tripolyphosphate	21.49
Sodium pyrophosphate	5.22

(continued)

Ingredient	Parts
1. <u>Spray-dried base granules</u>	
Sodium diethylenetriamine pentaacetate	0.38
Sodium carbonate	22.03
Polyethylene glycol (M.W. 8000)	0.43
Optical brightener	0.18
Moisture	6.52
Total	70.41
2. <u>Admix</u>	
Protease enzyme (Savinase)	0.56
Perfume particles	0.45
Sodium perborate monohydrate	4.04
Bleach activator*	5.58

* Cylindrical particles, 0.9 mm diam. X 1.5 - 3.0 mm long, containing 83% sodium linear nonoxyloxybenzene sulfonate, 5% polyethylene glycol 8000, 5% palmitic acid and 3% sodium C₁₃ linear alkylbenzene sulfonate.

Other compositions of the present invention are obtained when the phosphate builders in the compositions of Examples II and IV are replaced with hydrated Zeolite A (avg. diameter of 2 microns) or with an 80:20 by weight mixture of the tartrate monosuccinate:tartrate disuccinate builders described in U.S. Patent 4,663,071, Bush et al, issued May 5, 1987.

Claims

1. A granular laundry detergent or bleaching composition comprising a peroxyacid bleach, said peroxyacid bleach being a preformed peroxyacid, an inorganic persalt, or a combination of inorganic persalt and an organic peroxyacid precursor, characterized in that it further comprises a dry, flowable, perfumed silica particle, preferably from 0.001% to 5% by weight of the silica particle, having a particle size of from 0.001 micron to 15 microns and having a suitable perfume composition adsorbed onto said silica particle, the weight ratio of said perfume composition to the silica particle being from 0.001:1 to 6:1, preferably from 0.1:1 to 3:1, and with the provision that said composition does not comprise 19% by weight of sodium perborate.
2. The composition of Claim 1 wherein said silica particle is a silica gel having a particle size of from 1 micron to 8 microns.
3. The composition of Claim 1 wherein said silica particle is a fumed silica having a particle size of from 0.007 microns to 0.025 microns and a surface area of from 200 to 400 m²/g.
4. The composition of any one of the preceding claims wherein said silica particle is present at a level of from 0.1% to 1% by weight to provide a perfume level of from 0.01% to 0.5% by weight.
5. The composition of any one of the preceding claims wherein said perfume composition is relatively substantive to said fabrics.
6. The composition of any one of the preceding claims wherein the peroxyacid bleach is a preformed peracid present at a level to provide from 0.1% to 10% by weight of available oxygen.
7. The composition of any one of the preceding claims wherein the peracid is selected from the group consisting of:



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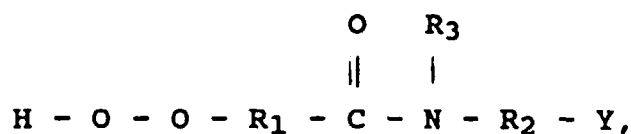
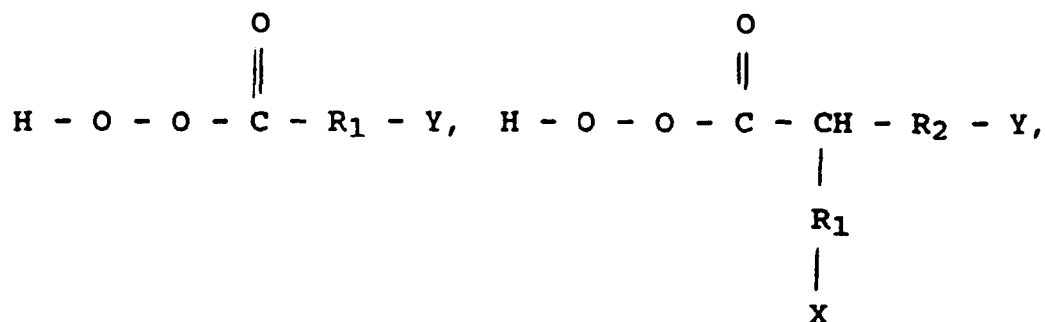
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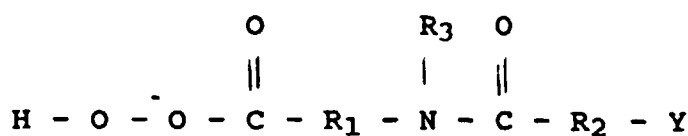
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6. Zusammensetzung nach mindestens einem der vorangehenden Ansprüche, wobei das Peroxysäure-Bleichmittel eine vorgebildete Persäure ist, die in einem Anteil vorliegt, um 0,1 bis 10 Gew.-% verfügbaren Sauerstoff vorzusehen.

5 7. Zusammensetzung nach mindestens einem der vorangehenden Ansprüche, wobei die Persäure aus der



und



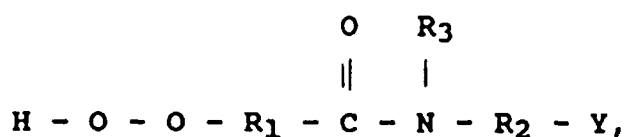
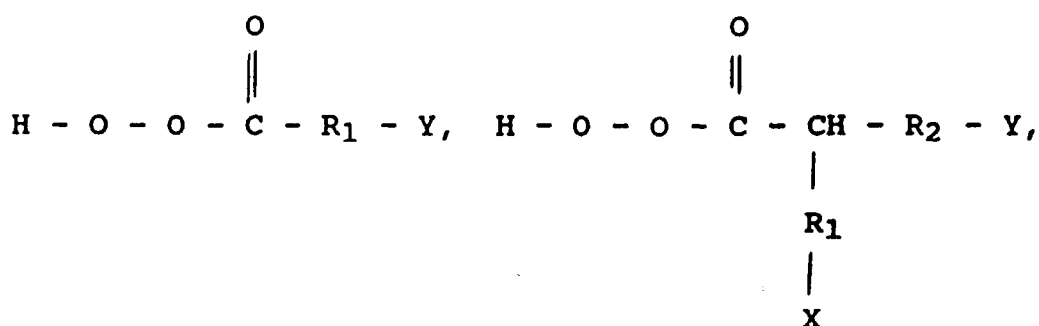
umfassenden Gruppe gewählt ist, worin R₁ und R₂ Alkylengruppen mit 1 bis 20 Kohlenstoffatomen oder Pheny-
lengruppen sind, R₃ Wasserstoff oder eine Alkyl-, Aryl- oder Alkarylgruppe mit 1 bis 10 Kohlenstoffatomen ist und
X und Y Wasserstoff, Halogen, Alkyl, Aryl oder irgendeine Gruppe sind, welche in einer wäßrigen Lösung eine
anionische Gruppe vorsieht.

8. Zusammensetzung nach mindestens einem der vorangehenden Ansprüche, wobei die Persäure Diperoxydodecandisäure oder das Nonylamid von Peroxybernsteinsäure ist.

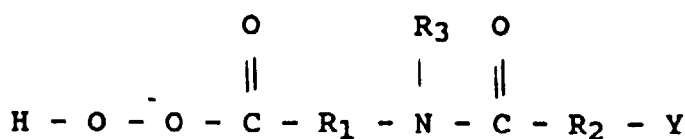
Revendications

1. Composition détergente ou de blanchiment granulaire pour la lessive, comprenant un agent de blanchiment de type peroxyacide, ledit agent de blanchiment peroxyacide étant un peroxyacide préformé, un persel minéral ou une combinaison d'un persel minéral et d'un précurseur de peroxyacide organique, caractérisée en ce qu'elle comprend, en outre, une particule de silice parfumée, sèche, coulable, de préférence de 0,001% à 5% en poids de la particule de silice ayant une granulométrie de 0,001 micron à 15 microns et ayant une composition de parfum convenable adsorbée sur ladite particule de silice, le rapport pondéral de ladite composition de parfum à ladite particule de silice étant de 0,001:1 à 6:1, de préférence de 0,1:1 à 3:1, et à condition que ladite composition ne comprenne pas 19% en poids de perborate de sodium.
2. Composition selon la revendication 1, dans laquelle ladite particule de silice est un gel de silice ayant une granulométrie de 1 micron à 8 microns.

3. Composition selon la revendication 1, dans laquelle ladite particule de silice est une fumée de silice ayant une granulométrie de 0,007 micron à 0,025 micron et une surface spécifique de 200 à 400 m²/g.
4. Composition selon l'une quelconque des revendications précédentes, dans laquelle ladite particule de silice est présente en une proportion de 0,1% à 1% en poids, pour donner une proportion de parfum de 0,01% à 0,5% en poids.
5. Composition selon l'une quelconque des revendications précédentes, dans laquelle ladite composition de parfum est relativement substantive vis-à-vis du linge.
6. Composition selon l'une quelconque des revendications précédentes, dans laquelle l'agent de blanchiment peroxyacide est un peracide préformé présent en une proportion fournissant de 0,1% à 10% en poids d'oxygène actif.
7. Composition selon l'une quelconque des revendications précédentes, dans laquelle le peracide est choisi dans le groupe constitué par:



et



où R₁ et R₂ sont des groupes alkylène contenant de 1 à 20 atomes de carbone ou des groupes phénylène, R₃ est un atome d'hydrogène ou un groupe alkyle, aryle ou alkylaryle contenant de 1 à 10 atomes de carbone, et X et Y sont des atomes d'hydrogène, d'halogène, des groupes alkyle, aryle, ou tout groupe fournissant un groupement anionique en solution aqueuse.

8. Composition selon l'une quelconque des revendications précédentes, dans laquelle le peracide est l'acide diperoxydodécanedioïque ou le nonylamide d'acide peroxy succinique.