

118

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



Nº 04-057551-00006-0000

Dep 2020 NUECREACIO
Lvs: 379 FASENACIONALI
Folios: 5

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

RECIBO OFICIAL DE CAJA : 07 - 53,343
FECHA : JUNIO 29 DE 2007

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	Nº. PAGO	FECHA PGO	Vr. PAGO
RAISBECK LARA RODRIGUEZ	CONSIGNACION	BANCO POPULAR	050-00110-6	49375977	29/06/2007	64,444,000.00

***** CONCEPTO *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO	
1	50005-01-03	CAMBIO DE MODALIDAD Y MODIFICA	12 MARCAS Y LEHAS COMERCIALES	99,000.00
TOTAL :			\$ 99,000.00	

SON: NOVENTA Y NUEVE MIL PESOS

RESPONSABLE : _____

RECIBO DE CAJA APLICADO AL EXPEDIENTE N°. _____

REIVINDICACIONES

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1. Artículo para fumar que comprende un cuerpo del filtro cilíndrico (16) de material de filtro homogéneo, un envoltura del filtro impermeable al aire (18) para el cuerpo del filtro (16), acanaladuras circunferencialmente espaciadas (20) que se extienden a lo largo del cuerpo del filtro (16), también estampadas en la envoltura del filtro (18) y un papel de cobertura del filtro para conectar el cuerpo del filtro (16) con una barra de tabaco (12), CARACTERIZADO PORQUE todas las acanaladuras (20) son abiertas en el lado que mira a la barra de tabaco (12) y solamente se extienden en forma continua a lo largo de una parte de la longitud del cuerpo del filtro (16), es decir, no hasta el extremo del cuerpo del filtro (16) que se introduce en la boca, y donde todas las acanaladuras (20) están cubiertas con el papel de cobertura ventilado (22) de tal forma que el aire de ventilación ingresa a las ranuras (20) por vía del papel de cobertura ventilado (22).
2. Artículo para fumar de acuerdo con la reivindicación 1, CARACTERIZADO PORQUE el material de filtro del cuerpo del filtro (16) es homogéneo en todo el largo del cuerpo del filtro.
3. Artículo para fumar de acuerdo con la reivindicación 1 o 2 CARACTERIZADO PORQUE las acanaladuras (20) se extienden en un máximo del 80 % del largo del cuerpo del filtro (16).
4. Artículo para fumar de acuerdo con cualquiera de las reivindicaciones 1 a 3 CARACTERIZADO PORQUE la longitud de las acanaladuras (20) es de aproximadamente 40 a 70 %, de la longitud del cuerpo del filtro (16).
5. Artículo para fumar de acuerdo con la reivindicación 4, CARACTERIZADO PORQUE la longitud de las acanaladuras (20) es de aproximadamente 55 a 65 % de la longitud del cuerpo del filtro (16).

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7. Artículo para fumar de acuerdo con la reivindicación 6, CARACTERIZADO PORQUE se prevén de tres a cinco acanaladuras.
8. Artículo para fumar de acuerdo con la reivindicación 7, CARACTERIZADO PORQUE se prevén cuatro acanaladuras.
9. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 8, CARACTERIZADO PORQUE las acanaladuras (20) están distribuidas simétricamente en el contorno del cuerpo del filtro (16).
10. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 9, CARACTERIZADO PORQUE las acanaladuras (20) tienen forma de V o de U.
11. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 10, CARACTERIZADO PORQUE las acanaladuras tienen una profundidad de 0,5 a 2 mm.
12. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 11, CARACTERIZADO PORQUE las acanaladuras (20) tienen, en el contorno, un ancho de 1 a 3 mm.
13. Artículo para fumar de acuerdo con la reivindicación 12 CARACTERIZADO PORQUE las acanaladuras (20) tienen, en el contorno, un ancho de 1,5 a 2,5 mm.
14. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 13, CARACTERIZADO PORQUE el cuerpo del filtro (16) es de estopa de filtro (tow) de acetato de celulosa.
15. Artículo para fumar de acuerdo con la reivindicación 14, CARACTERIZADO PORQUE el cuerpo del filtro (16) contiene aditivos tales como carbón activado, zeolitas, Duolite o aditivos modificadores del sabor.
16. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 15, CARACTERIZADO PORQUE el papel de cobertura del filtro (22) es poroso.
17. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 15, CARACTERIZADO PORQUE el papel de cobertura del filtro (22) se provee de

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18. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 17, CARACTERIZADO PORQUE es grado de ventilación del papel de cobertura del filtro (22) es de entre 30 y 80 %.
19. Artículo para fumar de acuerdo con la reivindicación 18, CARACTERIZADO PORQUE el grado de ventilación del papel de cobertura del filtro (22) es de entre 40 y 70 %.
20. Artículo para fumar de acuerdo con una de las reivindicaciones 1 a 19, CARACTERIZADO PORQUE la envoltura de filtro esta provista con aberturas de ventilación.
21. Artículo para fumar de acuerdo con la reivindicación 20, CARACTERIZADO PORQUE las aberturas de ventilación se proveen mediante perforación mecánica "on-line".
22. Uso de un artículo para fumar de acuerdo con una de las reivindicaciones 1 a 21 CARACTERIZADO PORQUE es para reducir la relación CO/sustancias de condensación en función del grado de ventilación del filtro.

DIVISION DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No 04-57551

EL EXTRACTO DE LA PRESENTE SOLICITUD DE **PATENTE DE INVENCION**

FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No **559** DE

FECHA **30 DE DICIEMBRE DE 2005** EL TERMINO HABIL SEÑALADO POR

LA LEY EXPIRA EL **28 DE MARZO DEL 2006**

NOTA: Dentro del plazo de los seis (6) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____

NO **X**

United States Patent [19]

Reynolds et al.

[11] 4,387,728

[45] Jun. 14, 1983

[54] CIGARETTE FILTER

[75] Inventors: Martin L. Reynolds; Robert R. Johnson, both of Louisville, Ky.

[73] Assignee: Brown & Williamson Tobacco Corporation, Louisville, Ky.

[21] Appl. No.: 245,428

[22] Filed: Mar. 19, 1981

[51] Int. Cl.³ A24D 3/04; A24D 3/18

[52] U.S. Cl. 131/336; 131/361; 131/362; 131/365; 131/94; 131/339

[58] Field of Search 131/361, 362, 339, 365, 131/340, 336, 340, 341, 338, 94

[56] References Cited

U.S. PATENT DOCUMENTS

3,910,288 10/1975 Hammersmith et al. 131/340

4,256,122 3/1981 Johnson 131/339

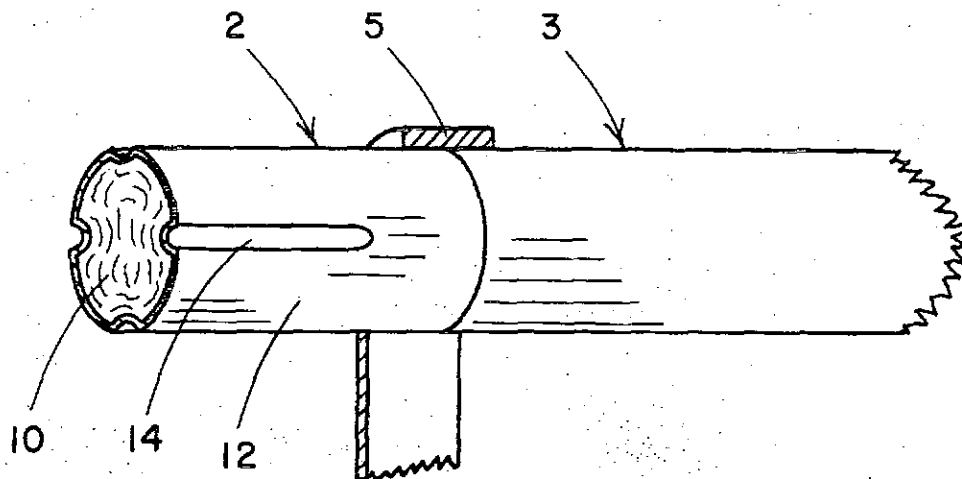
Primary Examiner—V. Millin

Attorney, Agent, or Firm—Charles G. Lamb

[57] ABSTRACT

A filter for a cigarette includes a porous filter rod circumscribed by a non-porous wrapper wherein the filter rod with the non-porous wrapper therearound is provided with grooves extending from one end thereof a preselected distance longitudinally therealong. The grooves are open to the atmosphere and may be oriented to extend to the mouth end of the filter when connected to a cigarette, to the tobacco end of the filter when connected to the cigarette, or non-connecting grooves which extend from each end of the filter element a preselected distance therealong.

5 Claims, 3 Drawing Figures



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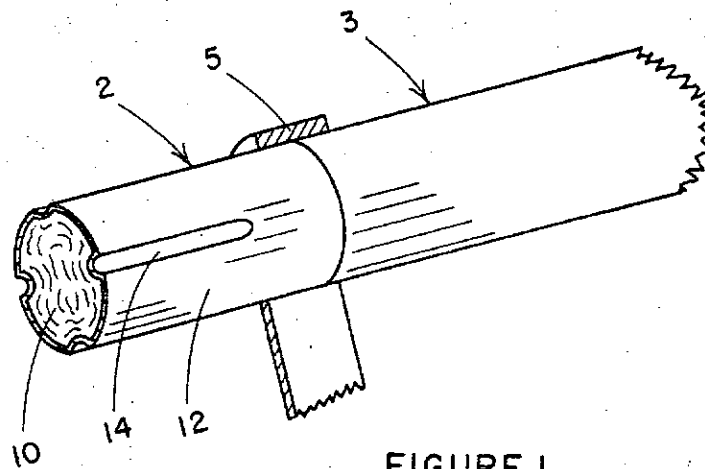


FIGURE 1

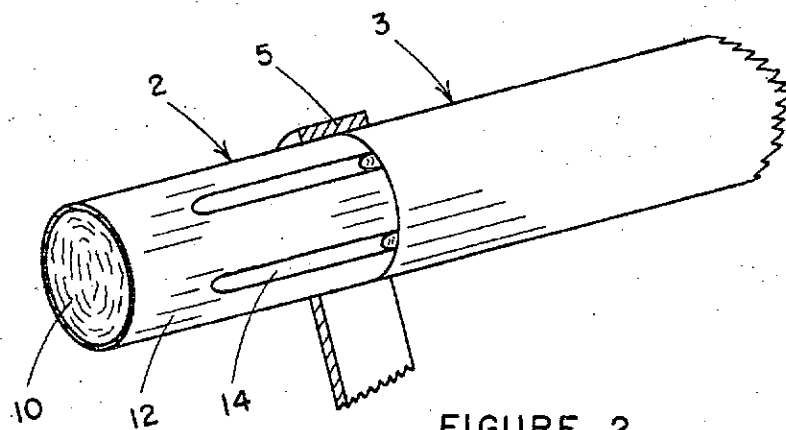


FIGURE 2

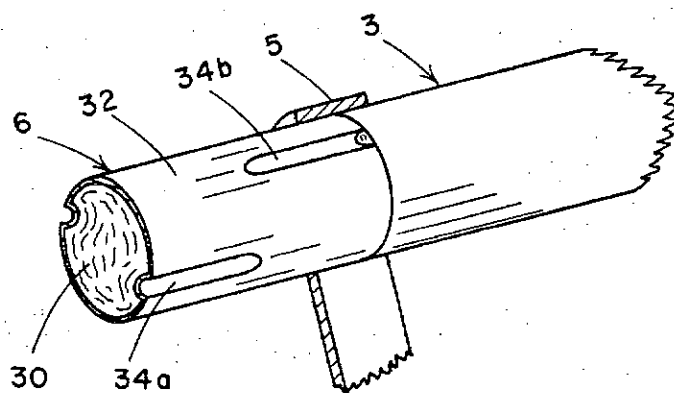


FIGURE 3

CIGARETTE FILTER

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to filters for cigarettes. In one aspect it relates to a filter with novel ventilating means therein. In another aspect the invention relates to a filter cigarette having flow directing grooves therein for directing ventilating air either to the tobacco end of the filter or to the mouth end of the filter or a combination thereof.

2. Description of the Prior Art

It is well known in the art to add filters to cigarettes wherein the filters are provided with ventilating means to bring in ambient air into the filter to dilute the smoke stream. The dilution of the smoke stream reduces the quantity of smoke particulates as well as gas phase components which are delivered to the mouth of the smoker. A number of means have been proposed and are utilized for introducing ventilating air into the cigarette. For example, the wrapper for the tobacco in a cigarette can be made from a porous material which allows for introduction of air along the entire length of the cigarette where it mixed with the smoke stream passing therethrough thereby diluting the smoke in the stream. Also, the cigarette wrapper may be perforated at selected locations along the length of the cigarette which provides ports for the cigarette through which ventilating air enters. Even further, it is known to perforate the wrapper of the filter on the filter end of the cigarette to allow for ventilating air to enter the filter for dilution of the smoke stream. There have also been a number of suggestions for incorporating grooves within the filter plug for the cigarette in order to facilitate the addition of ventilating air into the smoke stream.

For example, U.S. Pat. No. 3,596,663 relates to a tobacco smoke filter provided with a corrugated porous plug wrap surrounding a filter element which is circumscribed by a tipping paper having flow-through perforations therein whereby ventilating air enters directly into the filter element or progresses down the grooves to the smoker's mouth. Other patents which relate to cigarette filters having grooves circumscribing the filter element for the introduction of ventilating air into the filtering end of the filter cigarette include U.S. Pat. No. 3,577,995; U.S. Pat. No. 3,572,347; U.S. Pat. No. 3,490,461; U.S. Pat. No. 1,718,122; U.S. Pat. No. 3,788,330; U.S. Pat. No. 3,773,053; U.S. Pat. No. 3,752,165; U.S. Pat. No. 3,638,661; U.S. Pat. No. 3,608,561; West German Pat. No. 2,302,677; British Pat. No. 1,414,745; British Pat. No. 1,360,612; British Pat. No. 1,360,611; and, U.S. Pat. No. 3,910,288, the aforementioned British patents being directed to non-wrapped acetate filters. Furthermore, in co-pending application, Ser. No. 029,230, filed Apr. 11, 1979, a filter for a cigarette having ventilating air grooves-embedded into the filter element is described. In this application, the filter element is circumscribed by non-porous plug wrap wherein a plurality of grooves are embedded longitudinally into the plug wrap and the filter element; and, the plug wrap and filter element are circumscribed by tipping material having ventilating air openings therein.

SUMMARY OF THE INVENTION

The present invention provides a cigarette filter for lowering tar predominantly by ventilation instead of filtration. The present invention further provides a filter ventilation system for a cigarette utilizing grooves in the filter plug extending a preselected distance along the filter plug to one end of the filter. The present invention also provides a grooved filter with a non-porous plug wrap.

In co-pending application Ser. No. 029,230, filed Apr. 11, 1979, the flow of ventilating air is controlled by the number of perforations in the tipping paper in flow-through communication with the grooves as well as the cross-sectional area of the perforations. It has now been found that a filter can be made wherein the ventilating air flow is determined by the size, length, and depth of the grooves in the filter plug and tipping paper is omitted.

Various other features of the present invention will become obvious to those skilled in the art upon reading the disclosure set forth hereinafter.

More particularly, the present invention provides a filter for a cigarette comprising a porous filter rod of cylindrical configuration and a non-porous wrapper extending longitudinally of and circumscribing the rod leaving flow-through opposed ends of the rod, the wrapper and the rod having a plurality of longitudinally extending grooves circumferentially spaced therearound, the grooves extending from at least one end a preselected distance therealong.

It is to be understood that the description of the examples of the present invention given hereinafter are not by way of limitation and various modifications within the scope of the present invention will occur to those skilled in the art upon reading the disclosure set forth hereinafter.

BRIEF DESCRIPTION OF THE DRAWING

Referring to the drawing:

FIG. 1 is a perspective view of a preferred filter plug of the present invention attached to a cigarette with ventilating air grooves in the filter plug directed away from the cigarette;

FIG. 2 is a perspective view of the filter plug of FIG. 1 attached to a cigarette wherein the filter plug is turned for ventilating air grooves to be directed toward the cigarette; and,

FIG. 3 is a perspective view of another preferred filter plug of the present invention attached to a cigarette wherein the filter plug is provided with ventilating air grooves at each end.

DESCRIPTION OF THE PREFERRED EMBODIMENT

In FIGS. 1 and 2, a filter plug 2 of the present invention is shown. This filter plug 2 comprises a cellulose acetate filter element 10 or any other filter made from fibrous or foamed materials for tobacco smoke which may be known in the art circumscribed by a non-porous wrapper 12. It is realized that in the use of the term "non-porous wrapper", this includes non-porous outer surfaces of foamed material which are integral with the filter element as well as non-porous wrapping material which is not integral with the filter element. The filter plug 2 is provided with a plurality of grooves 14 therein extending longitudinally therealong. The filter plugs 2 are generally prepared by taking a standard filter rod of

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cellulose acetate or the like, wrapping the rod with a non-porous wrapping material, then subjecting the wrapped filter rod to a mold or other treating means designed for putting appropriate grooves therein. One such method is known as a heat molding technique, which is well known in the art.

In FIG. 1, the filter plug 2 is attached to a cigarette or tobacco column 3 at the non-grooved end by a small strip of material 5. It is realized that the means for attaching the filter plug 2 may take other forms without departing from the scope and spirit of this invention, the only consideration being that the attaching means does not interfere with the intake or flow of ventilating air. In use, ventilating air enters the grooves 14 upon inhalation by a smoker and travels down the grooves 14 towards the smoker's mouth. The number of grooves, depth of the grooves, groove positioning and length will be determined for the amount of ventilating air desired.

In FIG. 2 the filter plug 2 is attached to a cigarette or tobacco column 3 at the grooved end by a small strip of material 5 as in FIG. 1. However, in use, ventilating air enters the grooves 14 upon inhalation by a smoker and travels down the grooves 14 toward the tobacco column 3.

FIG. 3 shows a filter plug 6 which is comprised of a filter element 30 which may be cellulose acetate, or any other filter element known in the art, circumscribed by a non-porous wrapper 32 and includes a plurality of grooves 34a and 34b extending longitudinally from each end of the plug a preselected distance therealong. In the method of preparing a filter plug 6, the same procedure is utilized as mentioned hereinbefore in discussion of the preparation of filter plugs in FIGS. 1 and 2. However, in use of the filter plug 6 of FIG. 3, the filter plug 6 is attached to a cigarette or tobacco column 3 with a small strip of material 5 as in FIGS. 1 and 2. In use, ventilating air travels into the smoker's mouth through grooves 34a and travels down the filter plug 6 into the tobacco column 3 through grooves 34b simultaneously therewith.

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It will be realized that various changes may be made to the specific embodiments shown and described without departing from the principles of the present invention.

What is claimed is:

1. In a cigarette having a filter attached thereto wherein said filter and said cigarette are attached by a small strip of material, comprising: said filter being a porous rod of cylindrical configuration;

a smoke impervious wrapper extending longitudinally along said rod from at least one end thereof and circumscribing said rod leaving flow-through opposed ends of said rod, said wrapper having a plurality of longitudinally extending grooves circumferentially spaced therearound embedded into the filter rod and that portion of the wrapper defining the grooves remaining smoke impervious, said grooves being open ended at and extending from at least one of said ends a distance less than the length of the filter rod, the improvement being characterized in that for lowering the "tar" by ventilation the filter is connected with a cigarette or tobacco column only with said small strip of material, when attached to said filter, said strip has a width less than the distance between the groove and the tobacco column whereby said strip does not interfere with ventilating air flowing along said groove when in use.

2. The filter of claim 1 in combination with the cigarette, said grooves of said filter being in flow communication with said cigarette.

3. The filter of claim 1 in combination with the cigarette, said grooves of said filter being in flow communication with the smoker's mouth.

4. The filter of claim 1, said grooves extending from both ends a preselected distance therealong, said grooves being non-connectable.

5. The filter of claim 1, said smoke impervious wrapper being integral with said porous filter rod.

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(71) Applicant (for all designated States except US): AS-
TRAZENECA AB [SE/SE]; S-151 85 Södertälje (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): TROFAST, Eva
[SE/SE]; AstraZeneca R & D Lund, S-221 87 Lund (SE).

(74) Agent: GLOBAL INTELLECTUAL PROPERTY; As-
traZeneca AB, S-151 85 Södertälje (SE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
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Published:

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For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.



WO 01/89491 A1

(54) Title: NOVEL PROCESS

(57) Abstract: The invention relates to a stable pharmaceutical composition useful in the treatment of respiratory disorders such as asthma, rhinitis and chronic obstructive pulmonary disease (COPD) and a novel micronisation process for manufacturing a stable formulation for formoterol or its enantiomers and a carrier/diluent comprising a carbohydrate such as lactose.

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As used herein the term micronised carrier/diluent refers to carrier/diluent having a mean particle size of less than about 25 μm , preferably less than about 10 μm , more preferable less than about 5 μm . The term coarse carrier/diluent refers to carrier/diluent having a mean particle size of greater than about 25 μm .

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As used herein the term micronised active ingredient means active ingredient having a mean particle size of less than about 10 μm , preferably less than about 5 μm .

The pharmaceutical compositions according to the invention can be used for the treatment or prophylaxis of a respiratory disorder, in particular the treatment or prophylaxis of asthma, rhinitis or COPD.

In a further aspect the invention provides a method of treating a respiratory disorder, in particular asthma, rhinitis or COPD, in a mammal which comprises administering to a patient a pharmaceutical composition as herein defined.

The compositions of the invention can be inhaled from a nebulizer, from a pressurized metered dose inhaler or as a dry powder from a dry powder inhaler e.g. multidose reservoir systems from AstraZeneca (Turbuhaler) or Schering-Plough or from a dry powder inhaler utilizing gelatine, plastic or other capsules, cartridges or blister packs. Doses will be dependent on the severity of the disease and the type of patient.

The process of the invention is shown schematically in Figure 2.

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Experimental section

The invention is illustrated by the following examples which are not intended to limit the scope of the application. In the examples micronisation is carried out such that the particle size range for each of the active components is suitable for administration by inhalation.

5 The determination of the formoterol degradation products was performed by reversed phase liquid chromatography, on a two column system using LiChrospher 60 RP-select B. 5 μ m particles with octylsilane as stationary phase. UV-detector at 214 nm. Evaluation was done as area-% since the degradation products were not fully known.

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Example 1

The following example is a reference example in which the formulation is prepared in a conventional manner.

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Formoterol fumarate dihydrate (26.5 g) and lactose monohydrate (4.97 kg) are mixed for one or two hours in a tumbling mixer. This mixture was micronised in a spiral jet mill in order to attain a particle size suitable for inhalation. Micronisation of substances into the low micron range (1-5 μ m) may induce disturbances in the crystallinity of the substance.

20 Amorphous areas are introduced, especially at the surfaces of the micronised substance. This morphological change of the substances will increase the sensitivity to humidity and thereby being an potential implement to stability problems. The crystal structure of the substance mixture was restored in a controlled way according to US 5.874.063 or US 5.709.884.

25 To improve the flowability of the cohesive powder it was spheronised to agglomerates at room temperature at a controlled relative humidity of less than 50 %.

The micronised and spheronised formoterol fumarate dihydrate/lactose monohydrate formulation according to example 1 was filled in the powder device Turbuhaier (AstraZeneca) and stored for 6 months at 40° C and 75 % relative humidity. Results are

30 shown in figure 1(A).

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷: A61K 31/135, A61P 11/00	A1	(11) International Publication Number: WO 00/48587 (43) International Publication Date: 24 August 2000 (24.08.00)
(21) International Application Number: PCT/EP00/01270 (22) International Filing Date: 16 February 2000 (16.02.00) (30) Priority Data: 9903759.0 18 February 1999 (18.02.99) GB (71) Applicant (for all designated States except AT US): NOVARTIS AG [CH/CH]; Schwarzwaldallee 215, CH-4058 Basel (CH). (71) Applicant (for AT only): NOVARTIS-ERFINDUNGEN VERWALTUNGSGESELLSCHAFT M.B.H. [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT). (72) Inventors; and (75) Inventors/Applicants (for US only): CLARKE, Jeremy, Guy [GB/GB]; 8 Stirling Way, Horsham, West Sussex RH13 5RP (GB). DANAHA, Henry, Luke [GB/GB]; 29 Furze Lane, Godalming, Surrey GU7 3NP (GB). HASSAN, Ian, Francis [GB/GB]; 34 Kennedy Road, Horsham, West Sussex RH13 5DA (GB). (74) Agent: BECKER, Konrad; Novartis AG, Corporate Intellectual Property, Patent & Trademark Department, CH-4002 Basel (CH).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: COMBINATIONS OF FORMOTEROL AND FLUTICASONE PROPIONATE FOR ASTHMA		
(57) Abstract A pharmaceutical composition comprising (A) formoterol or a pharmaceutically acceptable salt thereof or a solvate of formoterol or said salt and (B) fluticasone propionate, suitable for use in the treatment of inflammatory or obstructive airways diseases.		

WO95/05805. Preferably, component (A) is formoterol fumarate, especially in the form of the dihydrate.

Administration of the pharmaceutical composition as hereinbefore described is preferably by inhalation, in which case (A) and (B) are in inhalable form. The inhalable form of the composition may be, for example, an atomizable composition such as an aerosol comprising the active ingredients, i.e. (A) and (B), in solution or dispersion in a propellant, or a nebulizable composition comprising a dispersion of the active ingredients in an aqueous, organic or aqueous/organic medium. For example, the inhalable form of the pharmaceutical composition may be an aerosol comprising a mixture of (A) and (B) in solution or dispersion in a propellant. In another example, the inhalable form is a nebulizable composition comprising a dispersion of (A) and (B) in an aqueous, organic or aqueous/organic medium.

An aerosol composition suitable for use as the inhalable form of the composition of the invention may comprise the active ingredients in solution or dispersion in a propellant, which may be chosen from any of the propellants known in the art. Suitable such propellants include hydrocarbons such as n-propane, n-butane or isobutane or mixtures of two or more such hydrocarbons, and halogen-substituted hydrocarbons, for example fluorine-substituted methanes, ethanes, propanes, butanes, cyclopropanes or cyclobutanes, particularly 1,1,1,2-tetrafluoroethane (HFA134a) and 1,1,1,2,3,3,3-heptafluoropropane (HFA227), or mixtures of two or more such halogen-substituted hydrocarbons. Where (A) and/or (B) are present in suspension in the propellant, i.e. where present in particulate form dispersed in the propellant, the aerosol composition may also contain a lubricant and a surfactant, which may be chosen from those lubricants and surfactants known in the art. Other suitable aerosol compositions include surfactant-free or substantially surfactant-free aerosol compositions. The aerosol composition may contain up to about 5% by weight, for example 0.002 to 5%, 0.01 to 3%, 0.015 to 2%, 0.1 to 2%, 0.5 to 2% or 0.5 to 1%, by weight of the mixture of (A) and (B), based on the weight of the propellant. Where present, the lubricant and surfactant may be in an amount up to 5% and 0.5% respectively by weight of the aerosol composition. The aerosol composition may also contain a co-solvent such as ethanol in an amount up to 30% by weight of the composition, particularly for administration from a pressurised metered dose inhalation device.

In another embodiment of the invention, the inhalable form is a dry powder, i.e. (A) and (B) are present in a dry powder comprising finely divided (A) and (B) optionally together with a finely divided pharmaceutically acceptable carrier, which is preferably present and may be

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one or more materials chosen from materials known as carriers in dry powder inhalation compositions, for example saccharides, including monosaccharides, disaccharides, polysaccharides and sugar alcohols such as arabinose, glucose, fructose, ribose, mannose, sucrose, trehalose, lactose, maltose, starches, dextran or mannitol. An especially preferred carrier is lactose, particularly in the form of the monohydrate. The dry powder may be in capsules of gelatin or plastic, or in blisters, for use in a dry powder inhalation device, preferably in dosage units of the mixture of (A) and (B) together with the carrier in amounts to bring the total weight of powder in each capsule to from 5 mg to 50 mg. Alternatively, the dry powder may be contained in a reservoir of a multi-dose dry powder inhalation device.

In the finely divided particulate form of the composition of the invention, (A) and (B) may each have an average particle diameter of up to about 10 μm , for example 0.1 to 5 μm , preferably 1 to 5 μm . In the aerosol composition where (A) and/or (B) are present in particulate form, (A) and/or (B) may have an average particle diameter of up to about 10 μm , for example 0.1 to 5 μm , preferably 1 to 5 μm . The solid carrier, where present, generally has a maximum particle diameter of 300 μm , preferably 212 μm , and conveniently has a mean particle diameter of 40 to 100 μm , preferably 50 to 75 μm . The particle size of the active ingredients (A) and (B), and that of a solid carrier where present in dry powder compositions, can be reduced to the desired level by conventional methods, for example by grinding in an air-jet mill, ball mill or vibrator mill, microprecipitation, spray-drying, lyophilisation or recrystallisation from supercritical media.

The inhalable pharmaceutical composition of the invention may be administered using an inhalation device suitable for the inhalable form, such devices being well known in the art. Accordingly, the invention also provides a pharmaceutical product comprising a pharmaceutical composition comprising (A) and (B) as hereinbefore described in inhalable form as hereinbefore described in association with one or more inhalation devices. In a further aspect, the invention provides an inhalation device containing a pharmaceutical composition comprising (A) and (B) as hereinbefore described in inhalable form as hereinbefore described.

Where the inhalable form of the composition of the invention is an aerosol composition, the inhalation device may be an aerosol vial provided with a valve adapted to deliver a metered dose, such as 10 to 100 μl , e.g. 25 to 50 μl , of the composition, i.e. a device known as a metered dose inhaler. Suitable such aerosol vials and procedures for containing within them

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES

202084

Bogotá, D.C.

Abogado

ALVARO CORREA ORDOÑEZ

Apoderado

ASUNTO

Radicación 04 - 57551

Trámite 011

Evento 379

Oficio 1082

Folios 007

Patente de Invención

☒

Patente de Modelo de Utilidad

☐

Vía Nacional

☐

Vía PCT (fase nacional)

☒

Cap. I

☐

Cap. II

☒

No. Sol. Internacional

GB2002/05603

Fecha de Presentación Internacional 11/12/2002

Como resultado del examen de fondo, realizado con fundamento en el artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le comunica:

1. Documentos estudiados

1.1. Descripción: Folios 30 a 47

1.2. Reivindicaciones: Folios 48 a 52
Folios 102 a 104 Modificado

1.3. Dibujos: Folios 54 a 56

1.4. Prioridad: Folios 57 a 101 (EP 01129382.6 18/12/2001)

2. Objeto de la invención

Título de la solicitud: "ARTICULO PARA FUMAR VENTILADO".

El problema planteado en esta solicitud es que no se conoce ningún filtro efectivo económicamente conveniente, para el monóxido de carbono (CO); especialmente en vista de las nuevas disposiciones legales que prescribe una cantidad máxima de CO

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otras sustancias presentes, tales como sustancias de condensación y nicotina.

El objeto de la presente invención se lleva acabo de acuerdo con las características reivindicadas en la reivindicación independiente 1 (folio 102)

El objeto de la solicitud definida anteriormente se encuentra en la Clasificación Internacional de Patentes (IPC), A24D1/04, A24D3/02, A24D 3/04, A24D3/10, A24D3/16, D21H27/00.

3. Determinación del Estado de la Técnica

Considerando que la fecha de presentación de la primera solicitud de la cual se reivindica prioridad es: 2001/12/18, se buscaron documentos del estado de la técnica relacionados, con fecha de publicación anterior a esta, que pueden afectar la patentabilidad del objeto de la presente solicitud, encontrándose:

Nº	Documento	Título	Fecha de Publicación
D1	US4387728	<i>Cigarette filter</i>	June 14, 1983

4. Análisis de patentabilidad (artículo 14 D 486)

4.1. Novedad (artículo 16 D 486)

Teniendo en cuenta que el documento **US4387728** (mencionado de ahora en adelante como **D1**), que se refiere a: un "**Cigarette filter**" como se muestra a continuación:

Al comparar elemento por elemento de la invención tal como esta definido en la reivindicación independiente 1 con el documento **D1**: vemos que el dicho documento contiene todas las características técnicas:

- Un elemento de filtro que comprende un cuerpo de filtro de material de filtro homogéneo. Ver **D1** Capitulo descriptivo, elementos (5-10) y Figura 2.
- Una envoltura de filtro que envuelve el cuerpo del filtro. Ver **D1** Capitulo descriptivo, elementos (2-10) y Figura 2.
- Unas acanaladuras circunferenciales separadas que se extienden a lo largo del cuerpo del filtro en donde dichas acanaladuras corren sobre la circunferencia del cuerpo de filtro. Ver **D1** Capitulo descriptivo, elementos (10-14) y Figura 2.
- Un papel de cobertura ventilado que interconecta el elemento de filtro con una barra de tabaco. Ver **D1** Capitulo descriptivo, elementos (3-5) y Figura 2.
- Una cantidad de acanaladuras abiertas en el lado que mira a la barra de tabaco y que solamente se extienden en forma continua en una parte de la longitud del elemento del filtro y por lo tanto, no hasta el extremo del elemento del filtro.

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El capítulo reivindicatorio no delimita claramente la invención respecto al documento **D1** (estado de la técnica). En la reivindicación independiente 1 no se observa ninguno de los rasgos particulares del artículo para fumar ventilado, o lo nuevo que se está aportando a la tecnología ni lo que lo hace diferente de lo ya existente, la reivindicación independiente 1 es demasiado general y el documento **D1** la abarca en su contenido.

Realizada la comparación del documento **D1** con la presente solicitud de patente de invención, se observa que dicho documento contiene todas las características técnicas la reivindicación independiente 1; con lo cual quedaría desvirtuada la novedad de esta.

5. Conclusión:

Los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

Nº	Documento Nº	Reivindicaciones Afectadas	Requisito que Afecta
D1	US4387728	1 a la 22	Novedad

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de sesenta días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única Nº 10 de 2001.


ALIX CARMENZA CÉSPEDES DE VERGEL
Jefe de División de Nuevas Creaciones

30 ENE 2009

El anterior requerimiento fue notificado por fijación en lista, de fecha _____

CONCEPTO TÉCNICO No. 61	EXAMINADOR TÉCNICO Código No. 84
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