We, PHILIP MORRIS INC.,
a Virginian Corporation,
of 120 Park Avenue, New York, New York 10017,
United States of America,

hereby apply for the grant of a Patent

for an invention entitled "MATRIX ENTRAPMENT OF FLAVOURINGS FOR SMOKING ARTICLES"

which is described in the accompanying complete specification.

This application is a Convention application and is based on the application numbered 799,750 for a patent or similar protection made in United States of America on 19th November, 1985.

Our address for service is: CALLINAN AND ASSOCIATES Patent Attorneys, of 48-50 Bridge Road, Richmond, State of Victoria, Australia.

Dated this 11th day of November, 1986.

PHILIP MORRIS INC.
By its Patent Attorneys:
CALLINAN AND ASSOCIATES

To The Commissioner of Patents.
FLAVOUR-RELEASING SMOKING ARTICLE

PHILIP MORRIS INC.

65008/86  11.11.86  19.11.85
799750  19.11.85  US
21.5.87
A24B 15/32  A24B 3/12
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Claim

1. A composition capable of progressively releasing flavour in smoking articles upon contact with moist smoke, said composition including:
   a soluble flavouring material; a solvent for the flavouring material; triacetin; and a moisture releasing hydrophilic polymer.

16. A method of making a flavour-releasing smoking article, said method including:
   (a) mixing a soluble flavouring material with a solvent;
   (b) adding triacetin to the mixture of step (a);
   (c) mixing the mixture of step (b) at a slow rate with a moisture releasing hydrophilic polymer; and
   (d) applying the final mixture of step (c) to a smoking article where it will be exposed to moist smoke.
Australia

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COMPLETE SPECIFICATION

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TO BE COMPLETED BY APPLICANT

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Complete Specification for the invention entitled: "MATRIX ENTRAPMENT OF FLAVOURINGS FOR SMOKING ARTICLES".

The following statement is a full description of this invention, including the best method of performing it known to me:—*

* Note: The description is to be typed in double spacing, pica type face, in an area not exceeding 250 mm in depth and 160 mm in width, on tough white paper of good quality and it is to be inserted inside this form.
The present invention relates to the flavouring of smoking articles and in particular to flavouring using a composition which releases flavour on contact with moist smoke.

Flavorants are commonly added to cigarettes and other smoking articles, during the manufacturing process to achieve desired taste and smell sensations during smoking. Many tobacco flavoring materials, including the commonly employed menthol flavorant, however, are volatile and tend to vaporize and gradually escape from the cigarette between the time the cigarette is made and the time it is smoked.

One method employed to compensate for this loss of flavorant over storage time involved applying a greater amount of the flavoring material to the cigarette during its manufacture. However, when the cigarette is stored for an extended period or subjected to varying conditions of temperature and humidity prior to smoking, a significant loss of flavor occurs resulting in failure to achieve the desired taste and smell sensations upon smoking.

Other flavor release methods which have been employed in smoking materials fall into four
categories, including the use of compounds or complexes which decompose to release the flavorant, the use of capsules rupturable upon the manual application of pressure thereto which contain the flavorant, flavorants releasable upon thermal activation and encapsulated flavors released by moisture application.

In one exemplary cigarette construction described in U.S. Patent No. 3,006,347, a flavor is encapsulated in a film forming vehicle having as its basic chemical constituent a polysaccharide, a polypeptide, or mixtures thereof. The encapsulated flavor is applied to the cigarette paper. The flavor is released by heating the vehicle to a temperature sufficiently high to degrade the film-forming vehicle structure. Thus, the useful application of the flavor and vehicle is limited to only those regions of the cigarette that will experience sufficiently high temperatures during smoking, such as the tobacco filler itself or the cigarette paper surrounding the filler. Moreover, the temperatures required to destroy the vehicle structure and release the flavor are sufficiently high to permit flavor release only in the vicinity of the coal. Thus, the flavor must be applied along the whole length of the tobacco rod wrapper to ensure a consistent level of release and delivery of flavor during smoking. Such a vehicle is difficult to apply to the cigarette paper during cigarette manufacture.

There remains, therefore, a need in the art for methods and materials enabling the retention of volatile flavoring materials in smoking articles under a variety of storage conditions and durations.
The present invention provides, in one aspect, a composition capable of stably entrapping and progressively releasing flavor in smoking articles. More specifically, the invention provides for a flavoring entrapped within a composition that progressively releases the flavoring upon reaction with water vapor present in the smoke. The composition comprises:

- a soluble flavoring material;
- a solvent for the flavoring material;
- triacetin; and
- a moisture releasing hydrophilic polymer.

The composition may also contain an effective amount of water to adjust the admixture to a desired viscosity for application to a smoking article. The composition is advantageously in the form of a film.

The composition may be adapted to contain a variety of conventional flavourings employed in the manufacture of cigarettes, cigars and the like, including menthol, citrus, chocolate, licorice, mint and breath freshener flavors. Similarly, in accordance with the broadly described composition of the present invention, the solvent may be selected from a number of solvents conventionally employed in the tobacco industry, such as alcohols, e.g., ethanol and peppermint oil. It is also possible, depending on the solubility of the flavoring material selected, for the solvent to be triacetin. The polymer is desirably selected from among esters of polyvinyl alcohols, polysaccharides, pectins, gelatins, starches, or mixtures thereof, but may also be any hydrophilic polymer capable of degrading upon contact with moisture laden smoke. Triacetin may also vary in proportion but is essential to the composition. In the absence of triacetin, little, if any, flavoring may be retained in the composition.

The parameters of one desirable embodiment of the composition according to the invention includes between 1 and 25 parts by weight menthol; between 1 to 25 parts by weight ethanol; between about
1 to 10 parts by weight triacetin; and between about 20 to 80 parts by weight polyvinylacetate [PVA]. A preferred composition more specifically contains about 2.0 parts by weight menthol, about 1 part by weight ethanol, about 0.5 part by weight triacetin, and about 7 parts by weight polyvinylacetate. To adjust the viscosity of the preferred embodiment about 1-15 parts by weight water may be added thereto. The ethanol content of the composition may be increased if desired, but decreasing the ethanol content may result in undissolved excess menthol.

The ratio of PVA to menthol is preferably about 3.5 parts PVA to 1.0 part menthol. A sufficient amount of the PVA matrix must be present to form a film and retain the menthol. However, increasing the relative amount of PVA proportionately decreases the accessibility or release rate of the menthol, because increased moisture exposure is required to initiate menthol release.

As another aspect of the present invention, a smoking article is provided comprising a source of moisture containing smoke; and a moisture-soluble, film-forming composition comprising a flavoring material as previously described. By utilizing such a moisture release flavor composition, the flavor may be applied at any position on the smoking article where it will be exposed to the moisture carrying smoke. Thus, flavor may be applied to or dispersed in essentially any part of a conventional cigarette, such as in the tobacco filler, in the filter plug on the inside surface of the cigarette paper wrapper surrounding the tobacco filler, or coated on the inside surface of the filter plug wrapper or the tipping paper. Where the filter is fibrous, the composition may be dispersed through at least a portion of it. Alternatively where the filter has at least one cavity, the composition may be located
within the cavity. Additionally, the flavor-containing composition may be applied to other smoking articles such as cigars and cigarillos and the like, and to smoking devices, such as cigarette holders, cigar holders and pipes.

As yet a further aspect of the invention, there is provided a method for making a flavor-releasing smoking article comprising:

(a) mixing a soluble flavoring material with a solvent;
(b) adding triacetin to the mixture of step (a);
(c) mixing the mixture of step (b) at a slow rate with a moisture releasing hydrophilic polymer;
(d) applying the final mixture of step (c) to a smoking article where it will be exposed to moist smoke.

The source of moist smoke may be, e.g., a tobacco rod and is capable of causing the composition to progressively release the flavoring material.

The applying step of the method may include coating the composition onto the inner surface of the cigarette or filter wrapping paper; dispersing the composition as a foam in the tobacco filler or filter material and locating the composition in a cavity within the filter or tobacco.

The solvents, flavoring materials and polymers described above for use in the composition may similary be employed in the method. A preferred embodiment of the method provides for admixing about two parts by weight menthol, with at least about one part by weight ethanol; adding about 0.5 part by weight triacetin; and admixing from four to twenty parts by weight polyvinylacetate therewith.

The composition smoking articles employing the composition, and methods for making the smoking articles of the present invention provide a novel flavoring system for smoking articles which maintains
its ability to release flavor for long periods of time under a variety of temperature and humidity conditions. Further, the methods and materials of the invention provide a flavoring system which also yields the selected flavor progressively during smoking.

Other aspects and advantages of the present invention will be readily apparent upon consideration of the following detailed description of the preferred embodiments thereof.

As previously described, the flavoring composition of the present invention may be applied to parts of the cigarette other than the plug wrap which are exposed to the moisture carrying cigarette smoke. For example, a composition according to the present invention may be applied within the filter itself, dispersed or concentrated in discrete regions therein or in other parts of the cigarette. Moreover, a compound filter element may be employed in which one portion contains the composition.

The following examples illustrate practice of the invention in the production of compositions and smoking articles for retention of flavor under variant conditions and for progressive delivery of the flavor during smoking:

EXAMPLE 1

In one preferred embodiment of the present invention, the flavor composition can be applied as a coating on the inside of the plug wrap of a filter cigarette.

In a typical filter cigarette, a tobacco column is overwrapped by a cigarette wrapper which is adhered to itself at an adhesive seam. Filter plug material is overwrapped by a plug wrapper, which
is also adhered to itself at a seam. Another optional adhesive seam serves to adhere the plug wrapper to the filter plug. Tipping paper adheringly overwraps and joins the plug wrap and cigarette wrapper.

The plug wrap may be coated with the composition solution prior to its incorporation into the cigarette. If the coated plug wrap is applied to the filter plug material before the coating dries, the coating may soak into the surface of the filter plug to some extent. Thus, the coating may also aid the adherence of the plug wrap to the filter plug. Any effect on the porosity through the plug wrap to the filter plug may be accounted for in vented filter constructions.

EXAMPLE 2

The storability and delivery of a smoking article according to the present invention was observed by coating a cigarette plug wrap on one side with the following composition: Five milligrams of menthol was solubilized with fifteen grams of ethanol (95 percent solution) and then mixed with fifteen grams of triacetin. This mixture was then warmed slightly above room temperature. Five grams of this solution was admixed with ten grams of PVA. The resulting mixture was applied to the cigarette plug wrap and allowed to dry. The plug wrap was wrapped around cellulose acetate filter plugs with the coated side toward the filter. The wrapped filters were stored in boxes for about two months, and then formed into cigarettes. While the cigarettes were being smoked, the menthol content on a puff by puff basis was recorded as shown in Table I below.

<table>
<thead>
<tr>
<th>puff</th>
<th>menthol (mg/puff)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.02</td>
</tr>
<tr>
<td>2</td>
<td>.03</td>
</tr>
<tr>
<td>3</td>
<td>.03</td>
</tr>
<tr>
<td>4</td>
<td>.03</td>
</tr>
<tr>
<td>5</td>
<td>.04</td>
</tr>
<tr>
<td>6</td>
<td>.05</td>
</tr>
<tr>
<td>7</td>
<td>.07</td>
</tr>
<tr>
<td>8</td>
<td>.12</td>
</tr>
</tbody>
</table>
A further feature of the flavor delivery composition according to the invention is illustrated in this example. As shown in the results tabulated above, a significant increase in flavor delivery level occurs from the sixth to the ninth puff of a cigarette prepared as described above. Consequently, the composition may be applied to the cigarette in reduced quantities such that the level of flavor delivery during the early puffs is below the taste threshold and that only during the sixth to ninth puff, when the flavor delivery increases, is the flavor level sufficient to exceed the taste threshold. For example, the taste threshold for menthol is about .025 milligram per puff. By timing delivery in this way, a flavor, such as a breath freshener, may be delivered only at the end of the cigarette. This effect may also be utilized in smoking articles other than cigarettes.

A similar effect is achieved by increasing the proportion of PVA in the solution. The accessibility of the flavor is decreased and during initial puffs, the flavor delivery is below the taste threshold. During the last puff or puffs however, sufficient moisture has been provided to the flavoring system to release menthol above the threshold taste level.

**EXAMPLE 3**

To determine the effectiveness of the composition in retaining the flavoring under a variety of storage conditions, the following study was conducted. A composition according to the present invention was prepared by mixing together on a weight basis ratio, about 2.0 parts menthol, about 1.0 part ethanol, and about 0.5 part triacetin. PVA was admixed in the solution at a ratio of about 3.5 parts PVA to about one part menthol. Water was also added.
at a ratio of about 1.5 parts H₂O to 2.0 parts menthol to adjust the viscosity of the composition.

Plug wrap was coated on one side with the mixture and used to wrap cellulose acetate filter plugs (21 mm in length and 25 mm in circumference) with the coated side toward the filter. Average total weight of about 35.5 milligrams of coating (to yield an average application of 5.9 milligrams of menthol) was evenly applied to each plug wrap. Cigarettes were made by joining the filters to 63mm tobacco rods and were divided into two groups.

One group of cigarettes was placed in a room at lab conditions of 75°F and 60% relative humidity, the other group was placed in a room at desert conditions of 110°F and 15% relative humidity. A number of coated cigarettes having the same structure and blend and having about 5.9 milligrams of menthol evenly added to the filler were placed in each of the rooms at the same time. All cigarettes were sealed in packs. Initially, and at periodic intervals, cigarettes were removed from the rooms and analyzed for menthol content in the smoke. The results of these studies are shown in Table II.
<table>
<thead>
<tr>
<th>Days Stored</th>
<th>Sample Type</th>
<th>Mg Menthol in All Puffs</th>
<th>Mg Menthol/Puff Puff Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Control</td>
<td>0.57 (a)</td>
<td>.06 .06 .07 .08 .08 .08 .08</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.68</td>
<td>.04 .04 .04 .04 .04 .05 .06</td>
</tr>
<tr>
<td>10</td>
<td>Control</td>
<td>0.63</td>
<td>.02 .02 .04 .06 .06 .07 .08</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.68</td>
<td>.02 .04 .04 .04 .05 .06 .07</td>
</tr>
<tr>
<td>20</td>
<td>Control</td>
<td>0.58</td>
<td>.04 .05 .06 .06 .07 .08 .09</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.70</td>
<td>.03 .04 .04 .05 .05 .05 .08</td>
</tr>
<tr>
<td>29</td>
<td>Control</td>
<td>0.58</td>
<td>.03 .05 .05 .06 .06 .06 .07</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.73</td>
<td>.04 .04 .04 .04 .05 .05 .07</td>
</tr>
<tr>
<td>57</td>
<td>Control</td>
<td>0.58</td>
<td>.03 .05 .05 .06 .06 .06 .07</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.73</td>
<td>.04 .04 .04 .04 .05 .05 .07</td>
</tr>
<tr>
<td>15</td>
<td>Control</td>
<td>0.046 (b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.058 (b)</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>Control</td>
<td>0.42 (b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.64 (b)</td>
<td></td>
</tr>
<tr>
<td>168</td>
<td>Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desert Conditions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Control</td>
<td>0.47 (c)</td>
<td>.04 .04 .05 .06 .06 .06 .07</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.62</td>
<td>.04 .04 .05 .05 .05 .06 .06</td>
</tr>
<tr>
<td>27</td>
<td>Control</td>
<td>0.38</td>
<td>.03 .04 .05 .05 .06 .06 .08</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.65</td>
<td>.05 .07 .06 .07 .08 .09 .13</td>
</tr>
<tr>
<td>37</td>
<td>Control</td>
<td>0.46 (b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.5 (b)</td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>Control</td>
<td>0.32 (b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.69 (b)</td>
<td></td>
</tr>
<tr>
<td>114</td>
<td>Control</td>
<td>0.26</td>
<td>.03 .04 .05 .06 .07 .07 .09</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.54</td>
<td>.04 .08 .07 .08 .10 .12 .17</td>
</tr>
<tr>
<td>30</td>
<td>Control</td>
<td>0.28 (b)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>0.57 (b)</td>
<td></td>
</tr>
</tbody>
</table>

(a) No data point collected.
(b) Puff by puff data not available.
The tabulated results unexpectedly illustrate good flavor retention and delivery during smoking in both desirable laboratory conditions and harsh desert conditions.

EXAMPLE 4

Yet another composition according to the present invention was developed and tested for flavor delivery. A composition was prepared by mixing together on a weight basis ratio about 2.0 parts menthol, about 1.0 part ethanol, and about 1.0 part triacetin. To this is added about 16.0 parts PVA and about 1.5 parts water. Cigarettes were made as in Example 3 with an average total weight of about 8-10 milligrams per cavity evenly coated on each plug wrap. The cigarettes were smoked and the menthol content on a puff by puff basis was as shown in Table III.

<table>
<thead>
<tr>
<th>puff</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>menthol (mg/puff)</td>
<td>.01</td>
<td>.02</td>
<td>.02</td>
<td>.02</td>
<td>.04</td>
<td>.04</td>
<td>.06</td>
</tr>
</tbody>
</table>

The results demonstrate a consistent delivery of flavor over time, with the heaviest delivery occurring in the later draws upon the cigarette.

EXAMPLE 5

A flavoring composition according to the present invention may also be coated on part of the cigarette other than the plugwrap, such as the filter fibers. Even when only the plugwrap is coated as the PVA film dries, some of the menthol in the composition may migrate into the cellulose acetate filter fibers or into the filler.

Cigarettes were produced on Day 1 using a flavoring composition applied to filler, filter and
plugwrap in two different concentrations. A flavoring composition of 7 parts PVA, 2 parts menthol, 1 part ethyl alcohol, 0.5 parts triacetin and 1.5 parts water was applied to two sets of cigarettes at coating weights of (A) 5.0 grams of solution/25 rods or 74.7 grams of solution/m² plug wrap and (B) 2.5 grams solution/25 rods or 37.35 grams of solution/m² plug wrap.

Table IV below illustrates the "storability" of such a flavorant over time and in various parts of the cigarette.

<table>
<thead>
<tr>
<th>Storage Time</th>
<th>Sample Type</th>
<th>Mg Menthol</th>
<th>Puff No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 month</td>
<td>A - Smoke</td>
<td>.63</td>
<td>.05</td>
</tr>
<tr>
<td>1 month</td>
<td>B - Smoke</td>
<td>.42</td>
<td>.02</td>
</tr>
<tr>
<td>11 months</td>
<td>A - Smoke</td>
<td>.66</td>
<td>.06</td>
</tr>
<tr>
<td>1 month</td>
<td>A - Filter</td>
<td>4.98</td>
<td></td>
</tr>
<tr>
<td>1 month</td>
<td>B - Filter</td>
<td>2.96</td>
<td></td>
</tr>
<tr>
<td>11 months</td>
<td>A - Filter</td>
<td>3.19</td>
<td></td>
</tr>
<tr>
<td>1 month</td>
<td>A - Plugwrap</td>
<td>2.09</td>
<td></td>
</tr>
<tr>
<td>1 month</td>
<td>B - Plugwrap</td>
<td>2.96</td>
<td></td>
</tr>
<tr>
<td>11 months</td>
<td>A - Plugwrap</td>
<td>1.25</td>
<td></td>
</tr>
</tbody>
</table>

A = 5.0 g solution/25 rods
B = 2.5 g solution/25 rods

The unexpected efficacy of the composition of the present invention in retaining flavor over time is clear. In contrast, a conventional commercially-available menthol cigarette experiences a decided decrease in flavor retention over storage time.

In one study, such a conventional cigarette stored in desert conditions of 110°F and 15% relative
humidity, decreased in menthol flavor delivery from 0.57 milligram of menthol in smoke when fresh to 0.24 milligram after six months. A cigarette treated according to the present invention with 74.7 grams of solution per square meter of plugwrap experienced a small decrease over the same time and under the same conditions of 0.63 to 0.57 milligram of menthol in smoke.

EXAMPLE 6

When all the flavorant composition is applied to the center of the filter, delivery of menthol flavor in smoke was found to be equivalent to filters having treated plugwraps only. In this study, the solution described in Example 5 above was applied to the center of the filter at a coating wet weight of 2.5 grams of solution per 25 rods or 37.35 grams/m² plug.

The analytical data appears in Table V below.

<table>
<thead>
<tr>
<th>Sample Type</th>
<th>Mg. Menthol</th>
<th>Mg Menthol/Puff Puff No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke</td>
<td>0.42</td>
<td>0.03 0.05 0.05 0.05 0.06 0.09 0.12</td>
</tr>
<tr>
<td>Filter</td>
<td>3.47</td>
<td></td>
</tr>
<tr>
<td>Plugwrap</td>
<td>0.14</td>
<td></td>
</tr>
</tbody>
</table>

EXAMPLE 7

As an alternative method of applying flavorant to the center of filter, the PVA-menthol solution of Examples 4 and 5 was applied to the center of a filter made of a low density cellulose acetate. This center was surrounded by a higher-density cellulose acetate with no trace of solution on it. The analytical data after seven days is shown below in Table VI.
TABLE VI

<table>
<thead>
<tr>
<th>Sample Type</th>
<th>Mg. Menthol</th>
<th>Mg Menthol/Puff Puff No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke</td>
<td>0.45</td>
<td>0.03 0.04 0.05 0.06 0.07 0.07 0.08 0.07</td>
</tr>
<tr>
<td>Filter</td>
<td>2.8</td>
<td></td>
</tr>
</tbody>
</table>

Numerous modifications and variations in practice of the invention are expected to occur to those skilled in the art upon consideration of the foregoing descriptions of preferred embodiments thereof. Among such modifications are the use of flavorants other than menthol, e.g., citrus, chocolate and other commonly employed cigarette flavorings and breath fresheners, and the substitution of other solvents or moisture-reactive polymers or substances such as polysaccharides, starches, pectins and mixtures thereof. It is apparent that various changes and modifications may be made in the invention without departing from the scope of the invention as defined by the claims appended hereto.
The claims defining the invention are as follows:

1. A composition capable of progressively releasing flavour in smoking articles upon contact with moist smoke, said composition including:
   a soluble flavouring material; a solvent for the flavouring material; triacetin; and a moisture releasing hydrophilic polymer.

2. The composition according to claim 1, further including water to adjust the composition to a desired viscosity.

3. The composition according to claim 1 or claim 2, in which the flavouring material is menthol, citrus, chocolate, licorice, mint or breath freshener flavour.

4. The composition according to any one of claims 1 to 3, in which the solvent is an alcohol.

5. The composition according to any one of claims 1 to 4, in which the hydrophilic polymer is an ester of at least one polyvinyl alcohol, a polysaccharide, a pectin, a gelatin, a starch or a mixture thereof.

6. The composition according to any one of claims 1 to 5, including from 1 to 25 parts by weight menthol, from 1 to 25 parts by weight ethanol, from 1 to 10 parts by weight triacetin and from 20 to 80 parts by weight polyvinylacetate.

7. The composition according to claim 6, including about 2.0 parts by weight menthol, about 1 part by weight ethanol, about 0.5 part by weight triacetin, and about 7 parts by weight polyvinylacetate.

8. The composition according to claim 6 or claim 7, further including from 1 to 15 parts by weight water.

9. A smoking article including: a source of moist smoke; and a moisture-soluble, film-forming composition including a flavouring material according to any one of claims 1 to 8.

10. The smoking article according to claim 9, further including a filter, the said composition being located within said filter.
11. The smoking article according to claim 10, in which the filter is fibrous and the said composition is dispersed through at least a portion of the filter.

12. The smoking article according to claim 10 or claim 11, in which the filter has at least one cavity and the said composition is located within the cavity.

13. The smoking article according to any one of claims 10 to 12, in which the filter includes a filter core at least partially wrapped on its outer periphery by a wrapping paper having the said composition coated onto the inside surface thereof.

14. The smoking article according to any one of claims 9 to 13, further including at least one of filter paper, cigarette wrapping paper, tipping paper, tobacco, non-tobacco tow material.

15. The smoking article according to claim 14, in which the said composition is coated or dispersed through one or more of the components.

16. A method of making a flavour-releasing smoking article, said method including:
   (a) mixing a soluble flavouring material with a solvent;
   (b) adding triacetin to the mixture of step (a);
   (c) mixing the mixture of step (b) at a slow rate with a moisture releasing hydrophilic polymer; and
   (d) applying the final mixture of step (c) to a smoking article where it will be exposed to moist smoke.

17. The method according to claim 16, in which the solvent is an alcohol.

18. The method according to claim 16 or claim 17, in which the flavouring material is menthol, ditrus, cholocate, licorice, mint or breath freshener flavours.

19. The method according to any one of claims 16 to 18, in which the polymer is an ester of at least one polyvinyl alcohol, a polysaccharide, a pectin, a gelatin and a starch or a mixture thereof.
20. The method according to any one of claims 16 to 19, wherein step (d) includes:
   (i) coating the final mixture on the inner surface of the smoking article or filter wrapping paper;
   (ii) dispersing the final mixture as a foam in the tobacco filler or filter material of the smoking article; or
   (iii) locating the final mixture in a cavity within the filter or tobacco.

21. The method according to any one of claims 16 to 19, wherein step (a) includes mixing about two parts by weight menthol with at least about one part by weight ethanol, step (b) includes adding about 0.5 part by weight triacetin, and step (c) includes mixing from four to twenty parts by weight polyvinylacetate with the mixture from step (b).

22. The method according to any one of claims 16 to 21, in which the smoking article is a cigarette and the source of moist smoke is a tobacco rod.

23. A composition capable of progressively releasing flavour in smoking articles upon contact with moist smoke, substantially as described herein with reference to any one of the Examples.

24. A smoking article as claimed in claim 8, substantially as described herein with reference to any one of the Examples.

25. A method of making a flavour-releasing smoking article, substantially as described herein with reference to any one of the Examples.

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