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(54) Package for steam cooking of food in a microwave oven

(57) A disposable microwave packaging 10 includes a first chamber 12 for solid food product 14 and a second chamber 34 for a liquid accompaniment. A reservoir 26 of steam generating liquid is provided around the second chamber 34. The reservoir 26 and/or its liquid content is configured for rapidly generating steam to steam cook the solid food product 14, whilst also providing a barrier to the microwave penetration of the liquid accompaniment. The electrolytic property of the liquid and the dimensions of the barrier can be varied to control the ration of steam cooking to direct microwave cooking.

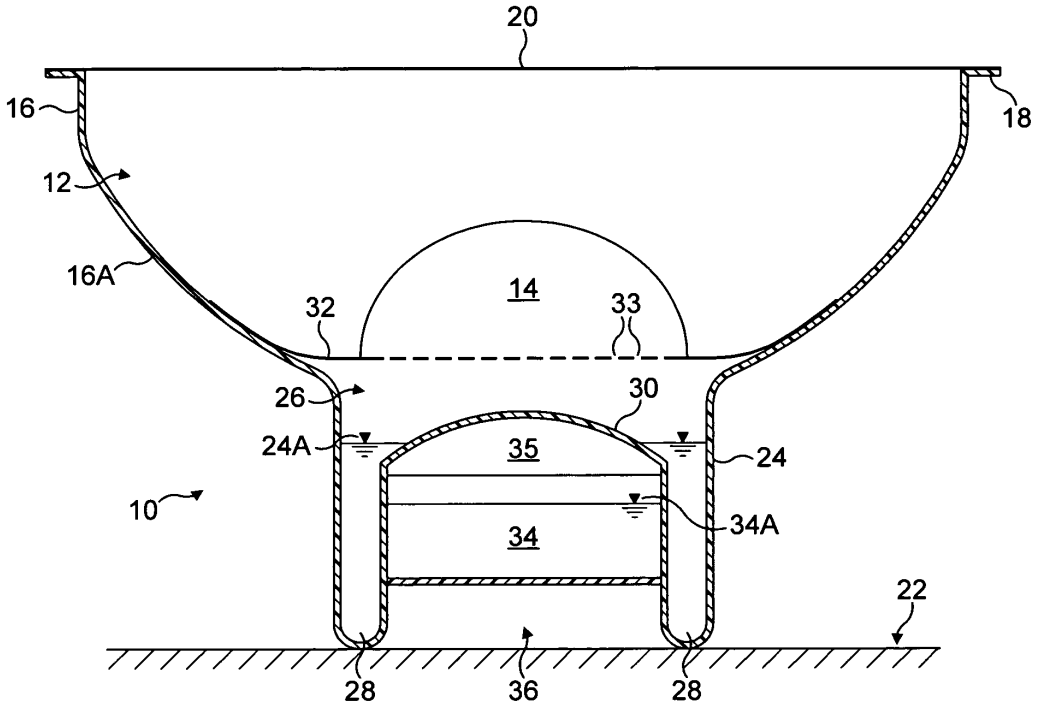

FIG. 1

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Description

[0001] The present invention relates to a cooking apparatus, more particularly, but not exclusively, to a cooking apparatus for use in steam cooking pre-packaged food product in a microwave environment.

[0002] Pre-packaged meals have been sold for re-heating in their pre-packaged state since the mid 1950s, with the advent of the so called "TV dinner". Nowadays, such meals are more commonly referred to as "ready meals", and typically consist of a pre-packaged, frozen meal that can be placed directly into a microwave oven for re-heating. Advantageously, conventional microwave ready meals require little or no preparation, and may take as little as 2 to 3 minutes to be sufficiently re-heated.

[0003] For many years, microwave ready meals have satisfied the demand from consumers for 'convenience' foods, i.e. foods that can be prepared simply and rapidly. However, due to recent increases in health and food awareness, there is now a heightened demand for ever healthier and higher quality food products at the same level of convenience.

[0004] True steam cooking of raw food goes some way towards meeting the demands of the modem consumer. However, there is a reluctance on the part of food retailers to offer raw, uncooked food for sale in a pre-packaged "ready meal" state, which can then be given a "first cook" by the consumer. In particular, there is a question mark over the microbial integrity of raw food products after microwaving, using conventional ready meal packaging.

[0005] Therefore, there is a need for an improved packaging or apparatus for cooking food product in a pre-packaged state using a microwave oven, which can address the problem outlined above.

[0006] It is an object of the invention to provide an improved apparatus or packaging for cooking pre-packaged food product in a microwave environment.

[0007] According to a first aspect of the present invention, there is provided apparatus for use in preparing food product in a microwave environment, the apparatus comprising a first chamber for receiving food product to be prepared in a microwave environment; and a reservoir for a steam generating liquid, wherein the reservoir is arranged in communication with the first chamber for the passage of steam from the reservoir in to the first chamber; and wherein a volume of electrolytic liquid is provided in the reservoir for generating steam under the influence of microwave energy.

[0008] The use of an electrolytic liquid, such as an aqueous solution or dispersion, is advantageous in that the properties of the liquid can be formulated to absorb microwave energy preferentially and to control the speed at which it is heated. For example, this can be achieved by using a liquid solution with a specific dielectric characteristic which has an affinity to microwave energy. By formulating the liquid in this way, it is possible to control the fraction of microwave energy absorbed by the electrolyte and thus control the rate at which steam is generated from the liquid under the influence of microwave energy.

[0009] Preferably, the liquid is formulated to absorb microwave energy preferentially and to rapidly generate steam under activation of microwave energy, within 20-30 seconds for example. As such, it is important to ensure that the electrical conductivity of the liquid is higher than that of the food product in the first chamber, so as to focus the microwave energy preferentially towards the liquid and not the food product. Hence, the liquid will be able to generate steam rapidly to enable true steam cooking of food product in the first chamber before substantial microwave penetration of the food product. This enables the surface of a solid food product, such as a piece of raw chicken or fish, to be subjected to steam from the separate reservoir and thus enable the product to be cooked primarily by steam and thermal conduction.

[0010] Hence, it is possible to control the ratio of true steam cooking to direct microwave cooking, i.e. the ratio of cooking which occurs from the surface of the product inwards to the cooking which occurs outwards from the centre of the product, by specifically formulating the electrolytic properties of the liquid.

[0011] Food products used conventionally in microwave ready meals usually have a conductivity which is equivalent to that of a 2-6% saline solution. Therefore, in most cases, the ionic conductivity of the liquid will be selected to specifically exceed the effective conductivity of a 2-6% saline solution.

[0012] For particularly acidic food products, such as tomato based products, the conductivity will need to be higher than for less acidic food products such as cream based products. For heavily acidic foods, the liquid may need to comprise a saline content up to a maximum saturated solution level, for example approximately 36 % for NaCl, as required. Alternatively or additionally, the liquid may comprise an acidic content to raise the conductivity of the liquid above the conductivity of the food product. For example, it may be preferable to use an acidic solution (either alone or in combination with a saline content) which gives the same ionic conductivity in solution as with the saturated saline concentration referred to above.

[0013] Hence, the ionic conductivity of the electrolytic liquid can be varied for different food products, for controlling the ratio of steam to microwave cooking.

[0014] In the most preferred embodiments, the apparatus takes the form of a disposable packaging, preferably of plastics and/or cardboard or paper type material, for example of the thin-walled kind commonly used in conventional packaging for microwaveable ready meals, as distinct from ceramic or other rigid walled reusable cooking pots or earthenware. The disposable packaging is preferably suitable for modem recycling techniques.

[0015] The distinction between disposable microwave packaging and non-disposable cooking vessels that are merely suitable for placing in a microwave enclosure should be readily understood by the skilled addressee.

The term disposable microwave packaging is intended to refer to packaging of the kind which is typically intended for a single use, i.e. to contain a pre-packaged food product, wherein the food product is intended to be stored in the packaging at a retail location, purchased by a consumer for placing in a microwave enclosure, whereupon the food product is heated and then consumed, and the packaging is then disposed of and not re-used, contrary to conventional cooking pots or steam cooking stacks, which are not used to store food product in a retail environment and which are intended to be cleaned and re-used after a cooking or heating operation.

[0016] In a preferred embodiment, the apparatus is arranged for directing steam up into the first chamber from the reservoir, wherein the reservoir is arranged beneath the first chamber.

[0017] In a preferred embodiment, vents are provided between the reservoir and the first chamber. The vents are preferably unidirectional, and may be provided in a film arranged between the reservoir and the first chamber. Conveniently, the vents comprises apertures in the film.

[0018] Preferably, the reservoir forms part of a stand for the apparatus.

[0019] The stand may be integrally formed with the first chamber, or may be removably connected to the first chamber. Additionally, the reservoir may be defined by an insert for the stand.

[0020] In a preferred embodiment, the apparatus includes a second chamber for containing food product to be prepared in a microwave environment, which is preferably arranged beneath the first chamber.

[0021] Advantageously, the reservoir in the preferred embodiment defines a chamber around at least a portion of the periphery of the second chamber. For example the reservoir may define a third chamber which is annular to the second chamber.

[0022] The provision of a reservoir about the periphery of the second chamber is advantageous in that it can provide a barrier for reducing the effects of microwave energy in penetrating food product in the second chamber.

[0023] It is preferred if the liquid in the reservoir is filled at least initially to at least the height of the food product in the second chamber, so that the liquid can provide a barrier to reduce the penetration of microwave energy through the reservoir into food product in the second chamber.

[0024] Preferably, the reservoir defines a head space above the second chamber, and/or may define a void beneath the second chamber. Such a void preferably has a height of at least 5 mm, and may be in the range of 5 mm to 25 mm.

[0025] The provision of a void beneath the heating chamber is advantageous in that it assists in effecting a more even coupling of microwave energy into the second chamber. For example, the void can advantageous in reducing the generation of hot spots around the periphery of food product present in the second chamber. This is of particular advantage if the second chamber is used to contain a sauce or other liquid based food product, which might otherwise experience overheating or boiling of the sauce adjacent the internal walls of the second chamber.

[0026] Preferably, the reservoir extends at least 5 mm above the upper level of the second chamber, and may extend at least 25 mm above the upper level of the second chamber.

[0027] Hence, in preferred embodiments, the initial fill level of liquid in the reservoir can be arranged above the level of the second chamber, and preferably at a height in the range of 5 mm to 25 mm above the level of food product in the second chamber.

[0028] The provision of a liquid barrier which extends up the length of the side walls of the second chamber to at least the fill level of food product, in particular a sauce or liquid based food product, in the second chamber, and preferably up to a height in the range of 0 mm to 25 mm above the fill level of food product in the second chamber, can assist in reducing overheating or boiling that might otherwise occur at the periphery of food product in the second chamber.

[0029] In a preferred embodiment, the reservoir defines a pair of opposing leg portions. A guide surface preferably extends between the legs, for directing condensation into the legs.

[0030] The first chamber may include a removable closure, for example a film closure, which may include vent means, such as apertures and/or a valve.

[0031] According to a most preferred aspect of the invention, there is provided disposable packaging for use in cooking food product in a microwave environment, the food preferably being pre-packaged in the packaging for storing at a retail location, the packaging comprising a first chamber for receiving food product to be prepared in a microwave environment; and a reservoir separate from said first chamber for storing a steam generating liquid, wherein the reservoir is arranged for the passage of steam from the reservoir in to the first chamber; wherein a volume of electrolytic liquid is provided in the reservoir for generating steam under the influence of microwave energy for cooking food product in the first chamber.

[0032] According to a further aspect of the invention, there is provided the use of an electrolytic solution for generating steam in an apparatus in a microwave environment, for preparing food. The apparatus preferably consist of a disposable microwaveable packaging, for example of plastics and/or cardboard or paper type material of the kind commonly used in conventional packaging for microwaveable ready meals. The apparatus preferably includes a second chamber below the first chamber, wherein the liquid reservoir acts as a shield to reduce microwave penetration to the second chamber. This is advantageous in that it can provide a means for steam cooking raw food product in the first chamber, whilst allowing a gentle microwave cooking of a sauce

or other accompaniment in the second chamber.

[0033] According to a still further aspect of the invention, there is provided a method of preparing food product in a microwave environment, including the steps of providing a first chamber containing food product; providing a reservoir in communication with said first chamber; providing an electrolytic solution in the reservoir for activation under the influence of microwave energy, for generating steam for use in the first chamber.

[0034] The method is preferably carried out using apparatus in the form of disposable microwaveable packaging, for example of plastics and/or cardboard or paper type material of the kind commonly used in conventional packaging for microwaveable ready meals, as distinct from ceramic or other rigid walled reusable cooking pots or earthenware. The disposable packaging is preferably suitable for modem recycling techniques.

[0035] According to yet a further aspect of the invention, there is provided apparatus for use in preparing food product in a microwave environment, the apparatus comprising a first chamber for receiving food product to be prepared in a microwave environment; a second chamber for receiving further food product to be prepared in a microwave environment; and a reservoir for a steam generating liquid; wherein the reservoir is arranged in communication with the first chamber for the passage of steam from the reservoir in to the first chamber, and wherein the reservoir defines a wall around at least a portion of the periphery of the second chamber.

[0036] The arrangement of the reservoir is advantageous in providing shielding for product contained in the second chamber, to prevent over heating and or 'hot spots' in the product, for example. In use, the reservoir defines a 'barrier' through which microwave energy that must pass before entering the second chamber, thereby reducing the initial penetration of microwave energy into the second chamber.

[0037] The apparatus is preferably in the form of disposable microwaveable packaging, for example of plastics and/or cardboard or paper type material of the kind commonly used in conventional packaging for microwaveable ready meals, as distinct from ceramic or other rigid walled reusable cooking pots or earthenware. The disposable packaging is preferably suitable for modem recycling techniques.

[0038] Other aspects and features of the invention will be readily apparent to the skilled reader from the dependent claims and the following description, which is made, by way of example only, with reference to the accompanying drawing, in which:

> Figure 1 shows a schematic cross-section through an apparatus according to a first preferred embodiment of the invention.

[0039] Referring to Figure 1, a disposable plastics packaging for use in the controlled steam cooking of food components, such as raw meat (e.g. fish or chicken) and/or raw vegetables, in a microwave environment is indicated generally at 10.

[0040] The packaging 10 is in the form of a bowl or tray type receptacle defining a cooking chamber 12 for cooking food product(s). By way of example, a generic food component is indicated at 14 in the cooking chamber 12. It should be noted that the packaging 10 may be supplied with a significant proportion of the cooking chamber 12 filled with food product, for example a combination of meat and vegetables filling at least 50 % of the capacity of the cooking chamber 12.

[0041] The cooking chamber 12 includes side walls 16 which terminate at an outwardly directed flange 18 defining a peripheral rim for the chamber 12. In this embodiment, the side walls 16 are substantially curved so as to define a bowl type chamber. However, an upper portion 16A of the side walls 16, adjacent the rim of the cooking chamber 12, is substantially planar. The curved walls 16 are configured for guiding steam up and around the food component 14, in use. The planar portion 16A is configured for receiving a microwave reflecting insert (not illustrated), for directing microwaves away from the upper corners of the cooking chamber 12, in use.

[0042] A film 20 of conventional structure provides a removable closure for the cooking chamber 12. The film 20 is sealingly coupled to the rim of the cooking chamber 12, for example by heat sealing. Although not illustrated, the film 20 includes perforations and/or a valve, to enable steam to be vented from the cooking chamber 12, under pressure, when the packaging 10 is in use.

[0043] In Figure 1, the packaging 10 is shown on a floor surface 22 in a microwave oven. The cooking chamber 12 is supported above the floor surface 22 by a stand 24. In this embodiment, the stand 24 is annular, so as to be substantially circular if viewed from beneath.

[0044] The stand 24 defines a steam generating chamber 26 in the packaging 10. The steam generating chamber 26 is arranged beneath the cooking chamber 12. In use, the packaging 10 is supplied with a volume of liquid contained in the chamber 26, for generating steam in the chamber 26, under activation by microwave energy or the like. In preferred embodiments, the liquid is in the form of an electrolytic solution such as a saline or acidic solution, which is formulated to absorb microwave energy as quickly as possible, for rapid generation of steam within the stand 24.

[0045] Effectively, as can be seen in cross-section, the steam generating chamber 26 defines diametrically opposed legs 28 separated by an arcuate, domed section 30. The domed section 30 is configured to act as a guide surface for directing condensation from steam generated in the chamber 26, in use, back into the legs 28, for reconverting into steam. Additionally, the curvature of the domed section 30 of the reservoir is also configured to facilitate the upward transfer of steam towards the cooking chamber 12, in use.

[0046] A perforated film 32 is arranged between the steam generating chamber 26 and the cooking chamber

12. In the illustrated embodiment, the food product 14 in the cooking chamber 12 sits on the film 32 directly above the steam generating chamber 26. The film 32 is configured to permit steam to pass upwards into the cooking chamber 12, under pressure, and is also configured to prevent the downward passage of air, steam or solids into the stand 24 from the cooking chamber 12. In preferred embodiments, the film 32 includes a plurality of perforations 33 adapted to permit only unidirectional (upward) passage of steam therethrough.

[0047] A heating chamber 34, for receiving a sauce or other liquid based accompaniment for the food component(s) 14 in the cooking chamber 12, for example, is arranged between the legs 28 of the steam generating chamber 26. The heating chamber 34 is arranged at a distance below the domed section 30, so as to define a head space 35 above the heating chamber 34. The heating chamber 34 is also spaced from the floor surface 22 of the microwave oven, to define a void 36 between the heating chamber 34 and the legs 28 of the stand 24. A volume of liquid-based accompaniment is included in the packaging 10 up to a level below the top of the chamber 34, indicated at 34A. The upper or lower surface of the heating chamber can comprise a film cover which is easily removable, for example by peeling, to gain access to the product stored therein.

[0048] The heating chamber 34 can be formed integrally on the apparatus or can be a separate removable article, for example to be clipped or otherwise frictionally held in place between the legs 28.

[0049] As will be appreciated, the packaging 10 includes a reservoir for containing a steam generating liquid. In this embodiment, the reservoir is defined by the stand 24, having a volume of liquid up to a level above the fill height 34A of the heating chamber 34, as indicated at 24A.

[0050] An object of the reservoir, for which the applicant hereby reserves the right to apply for independent protection at a later date, is to effect the optimum coupling of microwave energy into the liquid contained therein, for rapid heating and steam generation. For example, the height and width of the legs 28 of the stand 24, help to optimise the effective, exposed surface area of the liquid to microwave energy, particularly when arranged in the annular manner described above.

[0051] However, a further object of the reservoir in the illustrated embodiment, is to provide effective and optimum shielding for product contained in the heating chamber 34. For example, the reservoir defines a barrier around the periphery of the heating chamber 34. In use, a significant proportion of the microwave energy that would otherwise pass into the heating chamber 34 must first pass through the barrier and liquid contained therein, thus reducing the initial penetration of microwave energy into the heating chamber 34.

[0052] Preferably, the steam generating liquid will consist of a solution whose dielectric properties have an affinity to microwave energy, so as to readily absorb microwave energy. An advantage of such formulations is that it enables the liquid to be heated rapidly, so as to generate steam within 20-30 seconds for example, upon the activation of microwave energy. A further advantage of such formulations is that, by absorbing microwave energy, the liquid barrier thereby further reduces the proportion of microwave energy penetrating in to the heating chamber 34, in use.

[0053] Moreover, the initial height the liquid in the reservoir in relation to the height of the sauce or other component in the heating chamber 34 can be selected to optimise shielding of the heating chamber 34 from microwave energy, and to effect more even coupling of microwave energy into the sauce. For example, the liquid can be filled to a level of at least 5 mm above the height of the heating chamber 34, so as to create a wall which protrudes above the level of the heating chamber 34, and thereby further reduces the passage of microwave energy into the heating chamber. In certain applications, it will be advantageous to fill the liquid to a height of between 5 mm and 25 mm above the level of the heating chamber 34.

[0054] In the illustrated embodiment, the heating chamber 34 is arranged at least 5 mm from the bottom of the reservoir, so that the wall formed by the steam generating liquid extends below the level of the bottom of the heating chamber 34. It may be desirable in certain applications to ensure that the barrier extends between 5 mm and 25 mm from the bottom of the heating chamber.

[0055] The provision of the void 36 beneath the heating chamber 34 also assists in effecting a more even coupling of microwave energy into the heating chamber 34.

[0056] In use, the packaging 10 is placed in a microwave environment, for example in the position shown in Figure 1. Upon the activation of microwave energy, the cooking chamber 12, stand 24 and heating chamber 34 come under the influence of microwaves. A proportion of the microwaves passes through the stand 24 and is absorbed by the liquid in the stand 24. Due to the electrolytic properties of the liquid and its arrangement in the stand, the liquid heats to a steam generating temperature within seconds of the activation of microwave energy. That is to say, steam is generated in the stand 24 before microwaves have an opportunity to penetrate significantly into the food product 14 in the cooking chamber 12. At the same time, it will be understood that the reservoir of liquid provides a shield for the heating chamber 34, so that the direct influence of microwave energy on the product in the heating chamber 34 is limited.

[0057] As more steam is generated, the pressure in the stand increases until the steam is able to pass through the film 32 into the cooking chamber 12. Again, this occurs relatively rapidly, due to the properties and arrangement of the liquid in the stand 24, so that a substantial volume of steam passes into the cooking chamber 12 within seconds of the steam being generated, and before there has been a substantial penetration of microwaves into the food product 14. Hence, the ratio of steam cook-

ing to microwave cooking is controlled in favour of steam cooking.

[0058] Due to the position of the vents 33 in the film 32, the steam is able to come into direct contact with the underside of the food component 14. As the steam rises, the internal contour of the side walls 16 directs a flow of steam upwards and around the food product 14, so that steam passes over the entire surface of the food component 14. In this manner, any microbial organisms on the surface of the food component 14 can be effectively neutralised by the steam. This is of particular advantage in the case of a previously uncooked food component 14.

[0059] The continued application of microwave energy to the packaging 10 leads to continued steam generation, for steam cooking of the product 14 in the upper chamber 12.

[0060] Condensation from the steam, forms on the underside of the film 32. Eventually, the condensation forms droplets which fall into the stand 26. Any droplets which land on the domed section 30 pass down into the legs 28, to be reconverted into steam.

[0061] It should be understood that the reduced level of microwave energy which comes into contact with product in the heating chamber leads to a gentle heating thereof.

[0062] The ratio of steam to microwave cooking in the upper chamber, and the level of shielding (and therefore the level of microwave heating) of the food product in the lower chamber, can be predetermined by the content of the steam generating liquid, and also by the arrangement of the liquid in the packaging 10.

[0063] In preferred embodiments, the packaging may include an insert configured to correspond to the internal profile of the stand, for holding the steam generating liquid. The insert can then be lowered into the stand so as to define the steam generating chamber. Preferably, the insert is pre-filled and sealed so as to contain the required steam generating liquid, and includes the perforated film 30 on which the food product 14 is intended to sit during cooking.

[0064] The stand may be integrally formed with the cooking chamber. Alternatively, the stand may form a separate component, which is adapted to be sealingly engaged with a modified cooking chamber. The modified cooking chamber preferably defines an opening at a lower end thereof, which may include a peripheral seal for sealing engagement with the stand. The opening may be provided with a film closure adapted for allowing steam to pass upwardly through the film and into the chamber. Alternatively, said film may be formed across the upper end of the stand.

[0065] In the most preferred embodiment, the packaging contains a sealed volume of liquid, which is the source of the steam to be generated for cooking the food components in the upper chamber.

[0066] The liquid comprises a solution or dispersion which is formulated to control the speed at which it is heated, for example by choosing a solution having a specific dielectric characteristic, so as to control the rate and amount of steam generated from it under the influence of microwave energy. As will be appreciated by the skilled reader, by formulating the liquid in this way, it is possible to control the ratio of steam cooking to direct microwave cooking that occurs in the upper chamber. In most cases, the object of the packaging will be to generate steam as quickly as possible, so that true steam cooking occurs in the upper chamber before substantial microwave penetration of the food product. The formulation of the liquid is specifically selected to attract microwave energy, having a conductivity which is higher than the food product within the packaging/apparatus.

[0067] The liquid may also incorporate aromatic or flavour compounds that are released into the environment on evaporation of the generated steam, wherein such compounds enhance the perception of fresh cooking and quality. The liquid may be in the form of an emulsion, such that a substantial proportion of the flavour compounds is retained in the liquid until they are subsequently released through evaporation.

[0068] The illustrated embodiment provides a packaging having a fluid-containing chamber filled with a fluid which heats rapidly and provides microwave shielding for a sauce accompaniment in the heating chamber, whilst facilitating effective microbial inactivation of the surface of a raw food product via the use of steam to contact the surface of the main food product in the upper chamber.

[0069] The liquid in the steam generating chamber/insert of the preferred embodiments provides a source for steam generation on microwaving. The volume and/or effective surface area of the fluid used is in part determined by speed at which the steam needs to be generated, so as to 'treat' the surface of the food product as quickly as possible using steam (within 20-30 seconds of the application of microwave energy to the packaging, for example), and further in part by the degree of steam cooking required by the food product in the upper chamber. This enables the microbial surface of a solid food product, such as a piece of raw chicken or fish, to be subjected to steam from the separate reservoir *before* full microwave penetration to the centre of the food product. The main food product can therefore be primarily cooked by steam and thermal conduction.

[0070] It will be understood that the dielectric properties and configuration of the fluid in the reservoir may be selected to effect rapid heating of the fluid and generation of steam, as well as for effective shielding for the sauce accompaniment, as required for the particular food components.

[0071] It will be appreciated that the preferred embodiment of the invention provides a packaging which can be used to supply ready meals comprising a predominantly solid based main food component, and a sauce based accompaniment separate from the main food component, wherein the accompaniment can be heated, and the main food component can be steam-cooked simul-

taneously, using an isolated steam generating source, in a single microwave-friendly apparatus. The invention may be of particular use in the microwave preparation of meals incorporating raw food products, such as raw chicken, raw fish, and/or raw or blanched vegetables, preferably in combination with a sauce, not previously possible.

Claims

1. Disposable packaging for use in cooking food product in a microwave environment, the packaging comprising:

   a first chamber for receiving food product to be prepared in a microwave environment; and
   a reservoir separate from said first chamber for storing a steam generating liquid, wherein the reservoir is arranged for the passage of steam from the reservoir in to the first chamber;
   wherein a volume of electrolytic liquid is provided in the reservoir for generating steam under the influence of microwave energy for cooking food product in the first chamber.

2. Packaging according to claim 1, wherein the packaging is of plastics and/or cardboard or paper type material.

3. Packaging according to any preceding claim, wherein the reservoir is arranged beneath the first chamber and the packaging is configured for directing steam up into the first chamber from the reservoir.

4. Packaging according to claim 3, wherein unidirectional vents are provided in a film between the reservoir and the first chamber.

5. Packaging according to any preceding claim, wherein the packaging includes a second chamber for containing food product to be prepared in a microwave environment, the second chamber being arranged beneath the first chamber.

6. Packaging according to claim 5, wherein the reservoir defines a chamber around at least a portion of the periphery of the second chamber.

7. Packaging according to claim 5 or 6, wherein the reservoir defines an annular chamber around the second chamber.

8. Packaging according to any of claims 5 to 7, wherein the reservoir extends at least 5 mm above the upper level of the second chamber.

9. Packaging according to any of claims 5 to 8, wherein the reservoir extends at least 5 mm below the lower level of the second chamber.

10. Packaging according to any preceding claim, wherein the reservoir forms part of a footing or stand for the packaging.

11. Packaging according to claim 10, wherein the stand is integrally formed with the first chamber.

12. Packaging according to claim 10, wherein the stand is removably connected to the first chamber.

13. Packaging according to any of claims 10 to 12, wherein the reservoir is defined by an insert for the stand.

14. Packaging according to any preceding claim, wherein the first chamber includes side walls having a microwave reflective portion.

15. Packaging according to claim 14, wherein the microwave reflective portion comprises a metallic insert.

16. Packaging according to any preceding claim, wherein the first chamber includes a removable film closure.

17. Packaging according to any preceding claim, wherein the packaging is in the form of a tray or box.

18. Packaging according to any preceding claim, wherein the liquid consists of a solution or dispersion whose properties have been selected to rapidly generate steam, under activation of microwave energy, so that true steam cooking can occur in the first chamber before substantial microwave penetration of food product in said chamber.

19. Packaging according to claim 18, wherein the liquid comprises a saline content and has an ionic conductivity above the conductivity of the food product in the first chamber.

20. Packaging according to claim 18 or 19, wherein the liquid comprises an acidic content and has an ionic conductivity above the conductivity of the food product in the first chamber.

21. Packaging for use in preparing food product in a microwave environment, the packaging comprising:

   a first chamber for receiving food product to be prepared in a microwave environment;
   a second chamber for receiving further food product to be prepared in a microwave environment; and
   a reservoir for a steam generating liquid;

wherein the reservoir is arranged in communication with the first chamber for the passage of steam from the reservoir in to the first chamber, and wherein the reservoir defines a wall around at least a portion of the periphery of the second chamber.

22. Packaging according to claim 21, wherein the second chamber is arranged beneath the first chamber and wherein the reservoir is annular to the second chamber.

23. Packaging according to claim 21 or 22, wherein the reservoir extends at least 5 mm above the second chamber.

24. Packaging according to any of claims 21 to 23, wherein the reservoir extends at least 5 mm below the second chamber.

25. A method of preparing food product in a microwave environment, including the steps of providing a cooking vessel having a first chamber containing food product, the vessel further including a reservoir separate from but in communication with said first chamber, the reservoir containing an electrolytic liquid having a conductivity which is specifically selected to be higher than the conductivity of the food product, for preferential heating of the liquid under the influence of microwave energy to generate steam for steam cooking the food product in the first chamber.

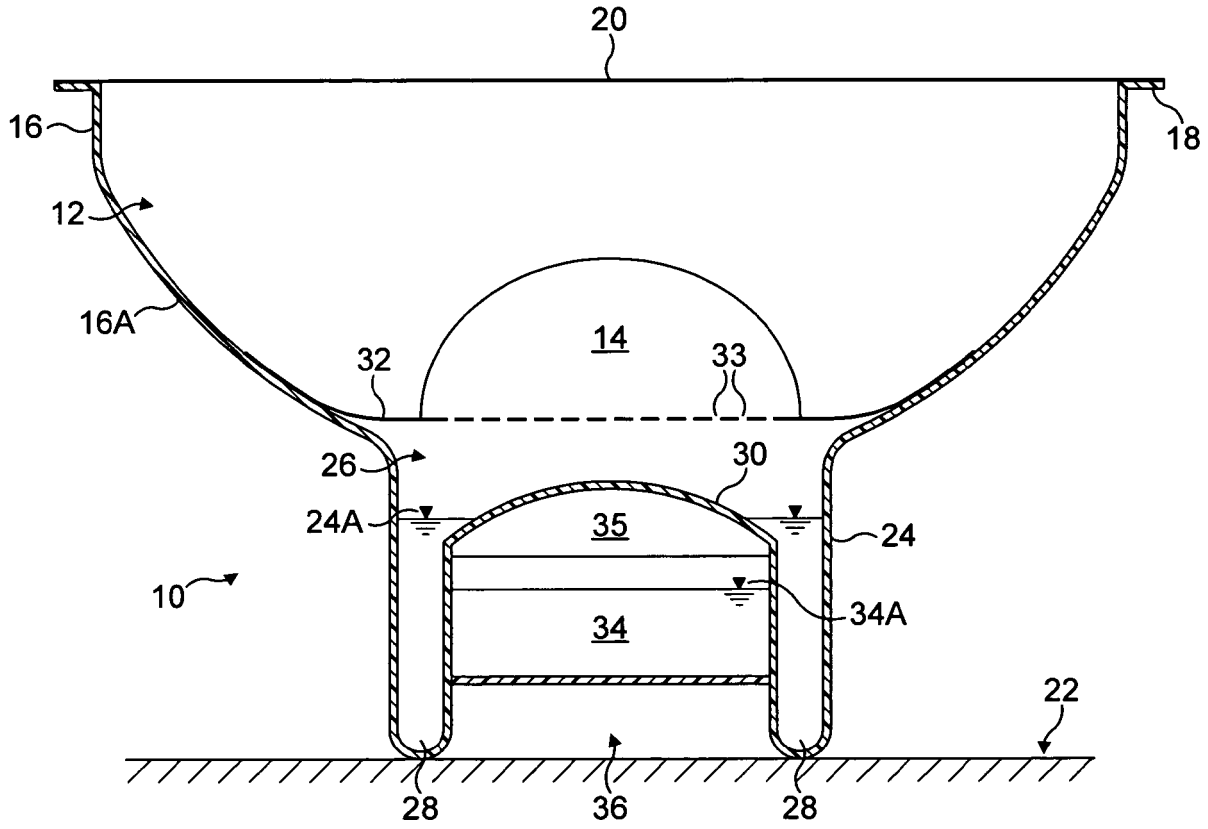

FIG. 1