

A salt solution was prepared as follows:

Phase 2 (Salt Solution)	Amount in kg
Water, 65° C.	35.318
Potassium Citrate	3.019
Sodium Biphosphate	1.872
Choline Bitartrate	0.453
Total	40.661

The potassium citrate was dissolved first and all salts were completely dissolved prior to dosing.

In Phase 2, the salt solution was sprayed onto the dry mixture under the following conditions:

Position of nozzle	Middle
Nozzle aperture diameter	1.8 rnm
Nozzle pressure	50 psi
Dosing pump	75 rpm
Spraying time	13 minutes
Hot air temperature inlet set	105–110° C.
Hot air temperature inlet	90–105° C.
Temperature of the powder	36–40° C.

After agglomeration for a few minutes, the Phase 3 lipid components were sprayed onto the mixture:

Phase 3 (Oil)	Amount in kg
TRISUN Oil R 80	24.542

The oil was sprayed onto the mixture under the following conditions:

Position of nozzle	Middle
Nozzle aperture diameter	1.5–2.5 mm, preferably 1.8 mm
Nozzle pressure	40 psi minimum, preferably 50 psi
Dosing pump	75 RPM
Spraying time	9 minutes
Hot air temperature inlet set	Approx. 100° C.
Hot air temperature inlet	100–105° C.
Temperature of the powder	50–60° C.; maximum 70° C.

After additional mixing for a few minutes, a decaffeinated coffee powder was added as follows:

Phase 4 (Dry Mix)	Amount in kg
NESCAFE® decaffeinated	25.055

In Phase 4, the coffee powder was added and mixed under the following conditions:

Mixing time	1 minutes
Temperature of the powder	55–60° C.

Thereafter, an aqueous carbohydrate solution was prepared as follows:

Phase 5 (Maltrin Solution)	Amount in kg
Water, 65° C.	15.093
MALTRIN M-180 (maltodextrin)	3.019
Total	18.112

In Phase 5, the maltrin solution was sprayed onto the mixture and agglomerated under the following conditions:

Position of nozzle	Middle
Nozzle. aperture diameter	1.8 mm
Nozzle pressure	50 psi
Dosing pump	75 rpm
Spraying time	6–8 minutes
Hot air temperature inlet set	110–150° C.
Hot air temperature inlet	100–110° C.
Temperature of the powder	55–58° C.

After agglomeration was complete, the product was sieved through a sieve having a mesh size of between #12#30, preferably #16 mesh, and collected in 25 kg storage bags. The product had a bulk density of about 250 to about 290 grams per liter. The product had a tapped density of about 360 to about 400 grams per liter.

The product was stored in a 502 mm×604 mm composite cans containing about 544 grams each.

One scoop of the product or about 60 cc=17 grams. Two scoops of the instant coffee composition are equal to one serving and each serving contains about 34 grams.

Two scoops of product were reconstituted with about 6 to 8 ounces of hot water. The instant coffee powder dissolved almost instantly to provide a clear solution looking and tasting like black coffee and which contained nutritionally therapeutic amounts of calories, protein, carbohydrate and lipid.

It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the present invention and without diminishing its attendant advantages. It is therefore intended that such changes and modifications be covered by the appended claims.

We claim:

1. A method for making a balanced, nutritionally complete powdered instant coffee composition comprising the steps of:

dry blending a powdered form of protein component and a powdered form of carbohydrate component to form a first mixture;

spraying the first mixture while dry blending with an aqueous salt solution and agglomerating to form a second mixture;

spraying the second mixture with fine particle size atomized oil and agglomerating to form a third mixture; dry blending the third mixture with coffee powder to form a fourth mixture, and

thereafter, spraying the fourth mixture while dry blending with an aqueous carbohydrate solution and agglomerating to provide a dissolvable instant coffee composition.

2. The method of claim 1 further comprising the step of sieving the dissolvable instant coffee composition through a sieve having a mesh size of from about #12 to about #30 mesh.