CLAIMS

What is claimed is:

1. A formulation comprising a composition comprising a particle comprising:

(a) a curcumin removed turmeric oleoresin (CRTO) in an amount 5 w/w% to 70 w/w%;

(b) a non-ionic oil in water emulsifier in an amount 30 w/w% to 45 w/w%;

(c) a curcuminoid in an amount 1 w/w% to 10 w/w%;

wherein the composition is water soluble and therapeutically safe,

wherein the composition does not contain a pH buffer,

wherein the particle has an average particle size in a range of 40 nm to 500 nm measured according to Polydispersity Index (PDI), and

wherein the weight% of the curcuminoid is in an amount less than the weight% of the CRTO in the composition.

2. The formulation of claim 1, wherein the non-ionic oil-in-water emulsifier is selected from polyoxyethylene products of a hydrogenated vegetable oil, a polyethoxylated castor oil, a polyethoxylated hydrogenated castor oil, a polyoxyethylene-sorbitan-fatty acid ester, a polyoxyethylene castor oil or a combination thereof.

3. The formulation of claim 1, further comprising a solvent, wherein the solvent comprises ethyl alcohol, isopropyl alcohol, glycofurol, a polyethylene glycol, glycerol, a polypropylene glycol, a propylene glycol, N-methyl-2-pyrolidone or a mixture thereof.

4. The formulation of claim 1, further comprises a lipophilic solvent.

5. The formulation of claim 4, wherein the lipophilic solvent comprises a triglyceride.

6. The formulation of claim 5, wherein the triglyceride comprises a caprylic triglyceride, a chain fatty acid triglyceride oil, isopropyl myristate, isopropyl palmitate, ethyl linoleate, an ethyl oleate ester of fatty acid, propylene glycol dicaprylate, propylene glycol dilaurate or a propylene glycol fatty acid ester.

7. The formulation of claim 4, further comprising a pharmaceutical acceptable excipient.

8. The formulation of claim 4, further comprising an adsorbent, wherein the adsorbent comprises a polyethylene glycol, a maltodextrin, a soluble starch, a hydrolysed starch, a fiber, a water soluble oligo saccharide, a chicory, a dextran, a cellulose, a copolymer of polyvinylpyrrolidone, a sugar alcohol, a sorbitol, a xylitol, a mannitol, a cellulose derivative or

combinations thereof, wherein the cellulose derivative is selected from the group consisting of a hydroxypropylmethyl cellulose, a hydroxypropyl cellulose, a cyclodextrine or combinations thereof.

9. The formulation of claim 4, further comprising a diluent, a filler or a binder, wherein the diluent, the filler or the binder comprises a mannitol, a sorbitol, a lactose, a candy, a sugar or combinations thereof.

10. The formulation of claim 4, further comprising a water-soluble polymer, wherein the water-soluble polymer comprises a polyglutamic acid, a polyethylene glycol, a propylene glycol, glycerol, a propylene glycol ester, a polyglycerol oleate polyvinyl alcohol, a non-ethoxylated polymer or combination thereof.

11. The formulation of claim 1, wherein the composition has properties as follows:

a) solubilization of the curcuminoid in the curcumin removed turmeric oleoresin results in a clear solution having a percent sediment load of less than 30%;

b) the formulation exhibits no precipitation or separation of the particles for a minimum period of 24 hours;

c) the formulation exhibits no precipitation or separation of the particles for a minimum period of 15 minutes when added to water in a ratio of one part of the formulation in 200 parts of water.

12. A method comprising:

a) mixing a curcuminoid, a curcumin removed turmeric oleoresin and a non-ionic emulsifier to form a blend comprising a particle;

b) sonicating and resting the blend alternatingly to obtain a clear solution;

c) preparing a water-soluble curcuma formulation; wherein the water-soluble curcuma formulation is therapeutically safe,

wherein the water-soluble curcuma formulation does not contain a pH buffer,

wherein the particle has an average particle size in a range of 40 nm to 500 nm; and

wherein the weight% of the curcuminoid is in an amount less than the weight% of the CRTO in the composition.

13. The formulation of claim 1, further comprising a turmeric oil.

14. The formulation of claim 1, wherein pH of the composition varies from 6.73 to 7.48.

15. The formulation of claim 1, wherein the composition is stable at a room temperature for about one year.

16. The formulation of claim 1, wherein the composition is stable at about 40 ℃ for about six months.