CLAIMS

What is claimed is:

1. A composition of a solid oral immediate release formulation of LSD, comprising LSD contained within an immediate release dosage form of an orally disintegrating tablet, wherein said composition is produced by lyophilization of a feedstock in a pre-formed mold to form the orally disintegrating tablet.

2. The composition of claim 1, further including a non-gelling matrix former chosen from the group consisting of non-gelling gelatin, maltodextrin, modified starches, starch ethers, low molecular weight dextrans, and low to intermediate molecular weight cellulose gums.

3. The composition of claim 1, further including a filler chosen from the group consisting of lactose, mannitol, dicalcium phosphate, calcium sulfate, starch, cellulose, kaolin, sodium chloride, sorbitol, trehalose, and sucrose.

4. The composition of claim 1, further including a binder chosen from the group consisting of acacia gum, methylcellulose, hydroxypropyl methylcellulose, hydroxypropyl cellulose, tragacanth, polyvinyl pyrrolidone (PVP), and starch.

5. The composition of claim 1, further including a buffer chosen from the group consisting of citrate, phosphate, and acetate.

6. The composition of claim 1, further including an antioxidant chosen from the group consisting of ascorbic acid, butylated hydroxy anisole (BHA), and butylated hydroxyl toluene (BHT), a photostabilization agent, and a permeation enhancer chosen from the group consisting of sulphoxides, azones, pyrrolidones, alcohols, alkanols, glycols, surfactants, and terpenes.

7. The composition of claim 1, further including coloring agents, sweeteners, and flavoring agents.

8. A method of making a solid oral immediate release formulation of LSD, including the steps of:

lyophilizing a flash frozen stock solution of LSD and excipients of a non-gelling matrix former, filler, binder, and buffer in a pre-formed mold; and

forming an orally disintegrating tablet.

9. The method of claim 8, wherein the non-gelling matrix former is chosen from the group consisting of non-gelling gelatin, maltodextrin, modified starches, starch ethers, low molecular weight dextrans, and low to intermediate molecular weight cellulose gums.

10. The method of claim 8, wherein the filler is chosen from the group consisting of lactose, mannitol, dicalcium phosphate, calcium sulfate, starch, cellulose, kaolin, sodium chloride, sorbitol, trehalose, and sucrose.

11. The method of claim 8, wherein the binder is chosen from the group consisting of acacia gum, methylcellulose, hydroxypropyl methylcellulose, hydroxypropyl cellulose, tragacanth, polyvinyl pyrrolidone (PVP), and starch.

12. The method of claim 8, wherein the buffer is chosen from the group consisting of citrate, phosphate, and acetate.

13. The method of claim 8, wherein the LSD is in a form chosen from free base and salt.

14. The method of claim 8, wherein the LSD is in a salt form and the salt is chosen from the group consisting of hydrochloride, hydrobromide, maleate, tartrate, citrate, phosphate, fumarate, sulfate, mesylate, acetate, and oxalate.

15. A solid oral immediate release formulation of LSD of an orally disintegrating tablet, wherein the composition is produced by lyophilization of a feedstock in a pre-formed mold to form the orally disintegrating tablet for use as a medicament.

16. Use of a composition in the manufacture of a medicament for the treatment of anxiety disorders, depression, headache disorder, obsessive compulsive disorder (OCD), personality disorders, stress disorders, drug disorders, gambling disorder, eating disorder, body dysmorphic disorder, pain, neurodegenerative disorders, autism spectrum disorder, eating disorders, and neurological disorders, wherein the composition is a solid oral immediate release formulation of LSD of an orally disintegrating tablet that is produced by lyophilization of a feedstock in a pre-formed mold to form the orally disintegrating tablet; and wherein the composition is to be administered to an individual.

17. The use of claim 16, wherein the individual has trouble swallowing, is elderly, or has dementia.

18. The use of claim 16, wherein the LSD is in a form chosen from free base and salt.

19. The use of claim 16, wherein the LSD is in a salt form and the salt is chosen from the group consisting of hydrochloride, hydrobromide, maleate, tartrate, citrate, phosphate, fumarate, sulfate, mesylate, acetate, and oxalate.

20. The use of claim 16, wherein 0.01-1 mg of LSD is to be administered.