- 3-80 wt.% of an estetrol component selected from estetrol, estetrol esters and combinations thereof;
- 20-97 wt.% C_4-C_{12} sugar alcohol;
- 0-45 wt.% of one or more other pharmaceutically acceptable ingredients;

• 5-96 wt.% of one or more pharmaceutically acceptable excipients;

the solid dosage unit comprising at least 0.1 mg of the estetrol component.

Rapid and complete dissolution of the estetrol component into saliva is essential for efficient delivery of the component via sublingual, buccal or sublabial administration of the solid dosage unit. Although the inventors do not wish to be bound by theory it is believed that the granules containing the estetrol component and the sugar alcohol contribute to the efficient release of the estetrol component into saliva during sublingual, buccal or sublabial administration. When coming into contact with saliva, the excipients or the dosage unit rapidly dissolve, thereby releasing the granules containing the estetrol component the sugar alcohol. These granules, once released, rapidly disintegrate thanks to the water-solubility of the sugar alcohol, thereby allowing the estetrol component to become dispersed into the saliva. Subsequently, the estetrol component is swiftly absorbed through mucosal tissue within the oral cavity and will enter the blood circulation.

The invention also provides a method of preparing the aforementioned solid dosage unit, said method comprising the steps of:

- providing a hot pumpable mixture of the estetrol component, the C_4-C_{12} sugar alcohol and the optional one or more other pharmaceutically acceptable ingredients, said hot pumpable mixture having a temperature of at least 105°C;
- cooling down the hot pumpable mixture to solidify C_4-C_{12} sugar alcohol and breaking up the pumpable mixture prior to or after said cooling to produce solid granules;
- mixing the granules with the one or more pharmaceutically acceptable excipients; and

forming the mixture into a solid dosage unit.

Another aspect of the invention relates to a method of female contraception, said method comprising sublingual, buccal or sublabial administration of a dosage unit as defined herein.

CLAIMS

1. An orally disintegrating solid pharmaceutical dosage unit having a weight between 50 and 1,000 mg, said dosage unit consisting of:
   - 4-95 wt.% of granules consisting of:
     - 3-80 wt.% of an estetrol component selected from estetrol, estetrol esters and combinations thereof;
     - 20-97 wt.% C_4-C_{12} sugar alcohol;
     - 0-45 wt.% of one or more other pharmaceutically acceptable ingredients;
   - 5-96 wt.% of one or more pharmaceutically acceptable excipients;

   the solid dosage unit comprising at least 0.1 mg of the estetrol component.

2. The solid dosage unit according to claim 1, wherein the estetrol component is estetrol, preferably anhydrous estetrol.

3. The solid dosage unit according to claim 1 or 2, wherein the granules represent between 5 and 90 wt.% of the dosage unit.

4. The solid dosage unit according to any one of the preceding claims, wherein the granules have a volume weighted average size between 30 and 200 μm, preferably between 40 and 150 μm.

5. The solid dosage unit according to any one of the preceding claims, wherein the C_4-C_{12} sugar alcohol is selected from mannitol, erythritol, isomalt and combinations thereof.

6. The solid dosage unit according to any one of the preceding claims, wherein the one or more pharmaceutically acceptable excipients comprise at least 30% by weight of said one or more pharmaceutically acceptable excipients of particles containing a disintegrating agent dispersed in a matrix containing C_4-C_6 sugar alcohol.

7. The solid dosage unit according to claim 6, wherein the particles contain 10-50 wt.% of disintegrating agent and 40-90 wt.% of C_4-C_6 sugar alcohol.

8. The solid dosage unit according to claim 7, wherein the disintegrating agent is selected from crospovidone, hydroxypropyl cellulose, croscarrnellose sodium and crystalline cellulose and combinations thereof

9. The solid dosage unit according to any one of claims 6-8, wherein the C_4-C_6 sugar alcohol is selected from mannitol, xylitol and combinations thereof.

10. The solid dosage unit according to any one of the preceding claims, wherein the dosage unit contains 0.05-10 mg progestogen.

11. The solid dosage unit according to any one of the preceding claims for use in medical treatment or for use in female hormone replacement therapy, said use comprising sublingual, buccal or sublabial administration of the dosage unit.

12. The solid dosage unit for the use according to claim 11, said use comprising once daily administration during a period of at least 1 week.

13. A method of female contraception, said method comprising sublingual, buccal or sublabial administration of a dosage unit according to any one of claims 1-10.

14. The method according to claim 13, said method comprising once daily administration during a period of at least 1 week.

15. A method of preparing the solid dosage unit according to any one of claims 1-10, said method comprising the steps of:

- providing a hot pumpable mixture of the estetrol component, the C_4-C_{12} sugar alcohol and the optional one or more other pharmaceutically acceptable ingredients, said hot pumpable mixture having a temperature of at least 105°C;
- cooling down the hot pumpable mixture to solidify C_4-C_{12} sugar alcohol and breaking up the pumpable mixture prior to or after said cooling to produce solid granules;
- mixing the granules with the one or more pharmaceutically acceptable excipients; and
- forming the mixture into a solid dosage unit.