CLAIMS

1. Polymorph Form A of the free base of 6-acetyl-8-cyclopentyl-5-methyl-2-(5-piperazin-1-yl-pyridin-2-ylamino)-8*H*-pyrido[2,3-*d*]pyrimidin-7-one, having a specific surface area of ≤ 2 m^2/g and a powder X-ray diffraction pattern comprising peaks at diffraction angles (2θ) of 8.0 ± 0.2, 10.1 ± 0.2, 10.3 ± 0.2, and 11.5 ± 0.2.

2. The polymorph Form A of the free base of claim 1, having a specific surface area of ≤ 1 m^2/g.

3. The polymorph Form A of the free base of claim 1, having a powder X-ray diffraction pattern comprising peaks at diffraction angles (2θ) of 5.1 ± 0.2, 8.0 ± 0.2, 10.1 ± 0.2, 10.3 ± 0.2, 11.5 ± 0.2, 14.0 ± 0.2, 15.1 ± 0.2, 16.0 ± 0.2, 17.1 ± 0.2, 18.7 ± 0.2, 19.7 ± 0.2, 20.2 ± 0.2, 21.2 ± 0.2, 22.5 ± 0.2 and 23.0 ± 0.2.

4. The polymorph Form A of the free base of claim 1, having a ^{13}C solid state NMR spectrum comprising the following resonance (ppm) values: 12.5 ppm ± 0.2 ppm.

5. The polymorph Form A of the free base of claim 4, having a ^{13}C solid state NMR spectrum comprising the following resonance (ppm) values: 12.5 ppm and 112.4 ppm ± 0.2 ppm.

6. The polymorph Form A of the free base of claim 4, having a ^{13}C solid state NMR spectrum comprising the following resonance (ppm) values: 12.5 ppm, 112.4 ppm and 143.2 ppm ± 0.2 ppm.

7. The polymorph Form A of the free base of claim 1, having a primary particle size distribution characterized by a D90 value of from 30 μm ± 20% to 65 μm ± 20%.

8. The polymorph Form A of the free base of claim 1, having a volume mean diameter characterized by a D[4,3] value of from 15 μm ± 20% to 40 μm ± 20%.