CLAIMS

1. Crystalline minocycline base form IV characterized by an X-ray powder diffraction pattern having peaks at 8.3; 13.46; 14.1, 21.3; 16.62 ± 0.2° 2θ.

2. Crystalline minocycline base form IV according to Claim 1 further characterized by an X-ray powder diffraction pattern having peaks at 7.06, 8.3, 10.3, 11.18, 13.46, 14.1, 14.94, 16.62, 20.62, 21.3, ± 0.2° 2θ.

3. Crystalline minocycline base form IV according to Claim 1 or 2 characterized by an X-ray powder diffraction pattern having peaks as given in Fig. 1.

4. Crystalline minocycline base form IV according to Claim 1, 2 or 3, showing an endotherm at about 146ºC from the STDA signal of a TGA analysis.

5. An acid addition salt formed from crystalline minocycline base form IV according to any preceding claim.

6. A process for preparing minocycline base form IV according to any of Claims 1 to 4 characterized by comprising dissolving minocycline base in an aliphatic ketone having 6 carbon atoms or less followed by the precipitation of, and optionally isolation of, form IV.

7. A process according to Claim 5 in which the aliphatic ketone is 3 methyl ethyl ketone (MEK).

8. A process for preparing minocycline base form IV according to Claim 6 or 7 characterized by a dissolution/precipitation temperature of from 20 to 25ºC.

9. A process according to Claim 6, 7 or 8 characterized in that the solution is stirred for at least 30 mins.

10. A pharmaceutical composition characterized by comprising crystalline minocycline base form IV, or an acid addition salt thereof, according to any of Claims 1 to 5 and optionally one or more pharmaceutically acceptable excipients.

11. A pharmaceutical composition according to Claim 10 for use in medicine.

12. A pharmaceutical composition according to Claim 10 or 11 for use as an antibacterial agent or as an anti-inflammatory agent.

13. Use of crystalline minocycline base form IV according to any of Claims 1 to 4 to form an acid addition salt of minocycline.