~~claims~~Claims

1. A process for increasing the crystallinity of at least one solid material comprising a fluticasone compound which is less than 100% crystalline, comprising contacting said solid material with solvent in which the solid material is insoluble or poorly soluble (a non-solvent); and applying ultrasound to the solid material when in contact with said non-solvent; wherein the solid material contains less than 5% by weight of solvent.

2. A process according to claim 1, wherein the solid material is a particulate solid material having a mean median aerodynamic diameter of up to 10 μm, preferably up to 5 μm.

3. A process according to claim 1 or claim 2, wherein solid material is obtained from a process selected from the group consisting of mechanical micronization, milling, jet milling, grinding, rapid precipitation, freeze drying, lyophilisation, rapid expansion of supercritical solutions, spray drying or mixtures thereof, preferably spray drying.

4. A process according to any preceding claim, wherein prior to the application of the above process, the solid material is less than 50% crystalline.

5. A process according to any preceding claim, wherein

the solid material further comprises a pharmaceutically active ingredient suitable for use in an inhalation formulation, preferably budesonide, salmeterol, salbutamol, formoterol or mixtures of two or more thereof, or

the solid material further comprises cromoglycate (e.g. as the sodium salt), salbutamol (e.g. as the free base or as the sulphate salt), salmeterol (e.g. as the xinafoate salt), tiotropium (eg. as the bromide salt), theophylline, terbutaline (e.g. as the sulphate salt), reproterol (e.g. as the hydrochloride salt), beclomethasone dipropionate (e.g. as the monohydrate), (-)-4-amino-3,5-dichloro-α-[[[6-[2-(2-pyridinyl)ethoxy]hexyl]amino]-methyl]benzenemethanol and physiologically acceptable salts and solvates thereof, or mixtures thereof, or

the solid material comprises a mixture of a fluticasone compound (e.g. as the propionate ester) with salmeterol (e.g. as the xinafoate salt), or

the solid material comprises a mixture of a fluticasone compound (e.g. as the propionate or furoate ester) with formoterol (e.g. as the fumarate salt), or

~~10. A pharmaceutical or agrochemical composition comprising (i) particles comprising at least one solid material comprising a fluticasone compound, the particles being obtained by the process of any preceding claim, and (ii) carrier particles, wherein the cohesive - adhesive balance ratio of the particles with the carrier particles is 0.8 to 1.3.~~

~~11. A pharmaceutical or agrochemical composition according to claim 10, wherein the particles have nanometer scale surface corrugations, and the value for $R_q$ is between 10 and 100 nm.~~

~~12. A pharmaceutical or agrochemical composition according to claim 10 or 11, wherein the surface area of the particles is 6 to 22 $m^2$/g.~~

~~13. A pharmaceutical or agrochemical composition according to any of claims 10 to 12, wherein the average ratio of the largest diameter of a particle to the smallest diameter of the particle is 1.3-1:1.~~

~~14. A pharmaceutical or agrochemical composition according to any of claims 10 to 13, wherein the carrier particles are selected from lactose, glucose and hydrates thereof.~~

~~15. A dry powder inhaler, a pressurized metered-dose inhaler (pMDI) or a breath activated nasal inhaler containing a pharmaceutical composition according to any of claims 10 to 14.~~