

We claim:

1. — A crystalline form of ((S)-2,2-difluorocyclopropyl)((1R,5S)-3-(2-((1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)-3,8-diazabicyclo[3.2.1]octan-8-yl)methanone₂.

~~2.1.~~ The crystalline form of claim 1, characterized by a powder X-ray diffraction pattern comprising peaks, in terms of 2θ , at 5.0, 9.9, and $15.3^\circ 2\theta \pm 0.2^\circ 2\theta$.

~~23.~~ The crystalline form of claim 1, characterized by a powder X-ray diffraction pattern comprising peaks, in terms of 2θ , at 5.0, 9.9, 15.3, and $19.7^\circ 2\theta \pm 0.2^\circ 2\theta$.

~~34.~~ The crystalline form of claim 1, characterized by a powder X-ray diffraction pattern comprising peaks, in terms of 2θ , at 5.0, 9.9, 15.3, 16.8 and $19.7^\circ 2\theta \pm 0.2^\circ 2\theta$.

~~45.~~ The crystalline form of any one of claims 1 to 4, where said form is non-hygroscopic and anhydrous.

~~56.~~ The crystalline form of any one of claims 1 to 4 wherein said form is substantially pure.

~~67.~~ The crystalline form of claim 1, characterized by a solid state ^{13}C nuclear magnetic resonance chemical shifts selected from the group consisting of 54.6, 129.8, and $124.9 \text{ ppm} \pm 0.2 \text{ ppm}$.

~~78.~~ The crystalline form of claim 1, characterized by a set of Raman bands at 1578, 1605, and $1566 \text{ cm}^{-1} \pm 2 \text{ cm}^{-1}$.

~~89.~~ The crystalline form of claim 1, characterized by a powder X-ray diffraction pattern comprising peaks, in terms of 2θ , at 5.0, 9.9, and $15.3^\circ 2\theta \pm 0.2^\circ 2\theta$ and solid state ^{13}C nuclear magnetic resonance chemical shifts selected from the group consisting of 54.6 and $129 \text{ ppm} \pm 0.2 \text{ ppm}$.

~~910.~~ The crystalline form of claim 1, characterized by a powder X-ray diffraction pattern comprising peaks, in terms of 2θ , at 5.0, 9.9, and $15.3^\circ 2\theta \pm 0.2^\circ 2\theta$ and a set of Raman band at $1578 \text{ cm}^{-1} \pm 2 \text{ cm}^{-1}$.

11. The crystalline form of claim 1, characterized by a set of Raman band at 1578 $\text{cm}^{-1} \pm 2 \text{ cm}^{-1}$ and solid state ^{13}C nuclear magnetic resonance chemical shifts selected from the group consisting of 54.6 and 129 ppm ± 0.2 ppm.

12. A pharmaceutical composition comprising the crystalline form of any one of claims 1 to 11; and, a pharmaceutically acceptable carrier.

13. The pharmaceutical composition of claim 12, comprising a topical formulation selected from a cream, transdermal patch, ointment, ophthalmic drops, lotion and gel.

14. The pharmaceutical composition of claim 13 wherein the topical formulation contains from ~~about~~ 0.1% to ~~about~~ 5.0% (w/v) crystalline ((S)-2,2-difluorocyclopropyl)-((1R,5S)-3-(2-((1-methyl-1H-pyrazol-4-yl)amino)-pyrimidin-4-yl)-3,8-diazabicyclo[3.2.1]octan-8-yl)methanone.

15. ~~Use of A method of treating a disease in a mammal, comprising administering to a mammal in need thereof a~~ therapeutically effective amount of a crystalline form of any one of claims 1-11, in the manufacture of a medicament for the treatment of a disease or disorder in a mammal, wherein the disease or disorder is selected from the group consisting of lupus, rheumatoid arthritis, IBD, ulcerative colitis, Crohn's Disease, vitiligo, alopecia, psoriasis, psoriatic arthritis, and atopic dermatitis.

16. ~~Use of A method of topically treating a disease in a mammal, comprising administering by a topical mode of administration to a mammal in need thereof a~~ therapeutically effective amount of a crystalline form of any one of claims 1-11 in the manufacture of a medicament for the topical treatment of a wherein the disease is selected from the group consisting of vitiligo, alopecia, psoriasis and atopic dermatitis.

17. The crystalline form of any one of claims 1 to 11 for use as a medicament.

~~18. The crystalline form of any one of claims 1 to 11 for use in the treatment of a disorder selected from the group consisting of lupus, rheumatoid arthritis, IBD, ulcerative colitis, Crohn's Disease, vitiligo, alopecia, psoriasis, psoriatic arthritis, and atopic dermatitis.~~

~~19. Use of the crystalline form of any one of claims 1 to 11 for the preparation of a medicament for the treatment of a disorder selected from the group consisting of lupus,~~

~~rheumatoid arthritis, IBD, ulcerative colitis, Crohn's Disease, vitiligo, alopecia, psoriasis, psoriatic arthritis, and atopic dermatitis.~~

~~20. A crystalline form of ((S)-2,2-difluorocyclopropyl)((1R,5S)-3-(2-((1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)-3,8-diazabicyclo[3.2.1]octan-8-yl)methanone, prepared by re-crystallizing — ((2,2-difluorocyclopropyl)-((1R,5S)-3-(2-((1-methyl-1H-pyrazol-4-yl)amino)-pyrimidin-4-yl)-3,8-diazabicyclo[3.2.1]octan-8-yl)methanone) from a suitable solvent.~~

~~21. A topical formulation of ((S)-2,2-difluorocyclopropyl)((1R,5S)-3-(2-((1-methyl-1H-pyrazol-4-yl)amino)pyrimidin-4-yl)-3,8-diazabicyclo[3.2.1]octan-8-yl)methanone, prepared by combining a crystalline form thereof with excipients suitable for transdermal administration..~~