the compound are described in WO 2011/097602. To move a drug candidate such as (8*S*,9*R*)-5-fluoro-8-(4-fluorophenyl)-9-(1-methyl-1*H*-1,2,4-triazol-5-yl)-8,9-dihydro-2*H*-pyrido[4,3,2-de]phthalazin-3(7*H*)-one to a viable pharmaceutical product, it can be important to understand whether the drug candidate has polymorph forms, as well as the relative stability and interconversions of these forms under conditions likely to be encountered upon large-scale production, transportation, storage and pre-usage preparation. The ability to control and produce a stable polymorph with a robust manufacturing process can be key for regulatory approval and marketing. Large scale production processes for high purity 5-fluoro-8-(4-fluorophenyl)-9-(1-methyl-1*H*-1,2,4-triazol-5-yl)-8,9-dihydro-2*H*-pyrido[4,3,2-*de*]phthalazin-3(7*H*)-one are sought, which is hampered by the fact that parameters affecting the stability of this compound are not known and polymorphic forms of the compound have not been available.

BRIEF SUMMARY

[0005] In one aspect, the present invention refers to a crystalline tosylate salt of (8*S*,9*R*)-5-fluoro-8-(4-fluorophenyl)-9-(1-methyl-1*H*-1,2,4-triazol-5-yl)-8,9-dihydro-2*H*-pyrido[4,3,2-de]phthalazin-3(7*H*)-one having an X-Ray Powder Diffraction pattern comprising peaks at 2θ angle degrees ± 0.2 of 7.5, 20.1, and 24.1.

[0005a] In another aspect, the present invention refers to a crystalline tosylate salt of (8*S*,9*R*)-5-fluoro-8-(4-fluorophenyl)-9-(1-methyl-1*H*-1,2,4-triazol-5-yl)-8,9-dihydro-2*H*-pyrido[4,3,2-de]phthalazin-3(7*H*)-one exhibiting a solid state ^{13}C NMR spectrum with peaks at 143.2, 136.0, 131.8, 123.9, 112.2, 105.2, and 100.3 ppm ± 0.2 ppm.

[0005b] In yet another aspect, the present invention refers to a pharmaceutical composition comprising the crystalline tosylate salt of the present invention and a pharmaceutically acceptable excipient.

[0005c] In yet another <u>example</u>~~aspect~~, the present invention refers to the use of a therapeutically effective amount of the crystalline tosylate salt of the present invention for the manufacture of a medicament for treating a subject with cancer.

[0005d] In one example, provided herein is a tosylate salt of (8*S*,9*R*)-5-fluoro-8-(4-fluorophenyl)-9-(1-methyl-1*H*-1,2,4-triazol-5-yl)-8,9-dihydro-2*H*-pyrido[4,3,2-de]phthalazin-3(7*H*)-one. In some examples the tosylate salt is in a crystalline form. In some examples, provided herein are solid forms of a tosylate salt of (8*S*,9*R*)-5-fluoro-8-(4-fluorophenyl)-9-(1-

WHAT IS CLAIMED:

1. A crystalline tosylate salt of (8S,9R)-5-fluoro-8-(4-fluorophenyl)-9-(1-methyl-1*H*-1,2,4-triazol-5-yl)-8,9-dihydro-2*H*-pyrido[4,3,2-de]phthalazin-3(7*H*)-one having an X-r~~R~~ay p~~P~~owder d~~D~~iffraction pattern comprising peaks at 2θ angle degrees ± 0.2 of 7.5, 20.1, and 24.1.

2. _The crystalline tosylate salt of claim 1, having an X-ray powder diffraction pattern comprising peaks at 2θ angle degrees ± 0.2 of 7.5, 15.1, 18.1, 20.1, 20.5, 22.6, and 24.1.

3. A crystalline tosylate salt of (8S,9R)-5-fluoro-8-(4-fluorophenyl)-9-(1-methyl-1*H*-1,2,4-triazol-5-yl)-8,9-dihydro-2*H*-pyrido[4,3,2-de]phthalazin-3(7*H*)-one exhibiting a solid state ^{13}C NMR spectrum with peaks at 143.2, 136.0, 131.8, 123.9, 112.2, 105.2, and 100.3 ppm ± 0.2 ppm.

4. A pharmaceutical composition comprising the crystalline tosylate salt of claim 1 and a pharmaceutically acceptable excipient.

5. A pharmaceutical composition comprising the crystalline tosylate salt of claim 3 and a pharmaceutically acceptable excipient.

6. A pharmaceutical composition comprising~~Use of a therapeutically effective amount of~~ the crystalline tosylate salt of claim 2 and a pharmaceutically acceptable excipient~~ 1 for the manufacture of a medicament for treating a subject with cancer~~.

~~7. The use of claim 6, where the cancer is bladder cancer, breast cancer, cervical cancer, colon cancer, colorectal cancer, Burkitt's lymphoma, nasopharyngeal carcinoma, EBV+ gastric cancer, endometrial cancer, gastrointestinal stromal tumor, glioblastoma, head and neck cancer, hepatocellular carcinoma, kidney cancer, leukemia, lung cancer, lymphoma, medulloblastoma, melanoma, meningioma, ovarian cancer, pancreatic cancer, prostate cancer, renal cancer, small cell lung carcinoma, thyroid cancer, or uterine cancer.~~

~~8. Use of a therapeutically effective amount of the crystalline tosylate salt of claim 3 for the manufacture of a medicament for treating a subject with cancer.~~

~~9. The use of claim 8, where the cancer is bladder cancer, breast cancer, cervical cancer, colon cancer, colorectal cancer, Burkitt's lymphoma, nasopharyngeal carcinoma, EBV+ gastric cancer, endometrial cancer, gastrointestinal stromal tumor, glioblastoma, head and neck cancer, hepatocellular carcinoma, kidney cancer, leukemia, lung cancer, lymphoma, medulloblastoma, melanoma, meningioma, ovarian cancer, pancreatic cancer, prostate cancer, renal cancer, small cell lung carcinoma, thyroid cancer, or uterine cancer.~~