WE CLAIM:

1. A fumarate crystalline form of (*R*)-2-methyl-3-(1-((4-methyl-7-morpholinopyrido[3,4-*d*]pyridazin-1-yl)amino)ethyl)benzonitrile.

2. The fumarate crystalline form according to claim 1, wherein the crystalline form is Form A having an X-ray powder diffraction pattern comprising at least one peak at °2θ selected from 6.9±0.2, 13.8±0.2, 14.2±0.2, 15.7±0.2, 18.4±0.2, 23.0±0.2, 23.8±0.2, 26.6±0.2, 27.3±0.2 and 28.6 ±0.2.

3. The fumarate crystalline form according to claim 1, wherein the crystalline form is Form A having an X-ray powder diffraction pattern comprising peaks at °2θ values of 6.9±0.2, 13.8±0.2, 14.2±0.2, 18.4±0.2, and 23.8±0.2.

4. The fumarate crystalline form according to claim 1, wherein the crystalline form is Form A having an X-ray powder diffraction pattern comprising two or more peaks at °2θ at 6.9±0.2, 13.8±0.2, 14.2±0.2, 15.7±0.2, 18.4±0.2, 23.0±0.2, 23.8±0.2, 26.6±0.2, 27.3±0.2 and 28.6 ±0.22.

5. The fumarate crystalline form according to claim 1, wherein the crystalline form is Form A having an X-ray powder diffraction pattern comprising three or more peaks at °2θ at 6.9±0.2, 13.8±0.2, 14.2±0.2, 15.7±0.2, 18.4±0.2, 23.0±0.2, 23.8±0.2, 26.6±0.2, 27.3±0.2 and 28.6 ±0.2.

6. The fumarate crystalline form according to claim 1, wherein the crystalline form is Form A having an XRPD pattern substantially as shown in FIG. 1.

7. The fumarate crystalline form according to claim 1, wherein the crystalline form is Form A characterized by having an endothermic peak with an onset at about 248°C by differential scanning calorimetry (DSC).

8. The fumarate crystalline form according to any one of claims 1-7, wherein the crystalline form is Form A having a DSC thermogram substantially as shown in FIG. 2.

9. The fumarate crystalline form according to any one of claims 1-8, wherein the crystalline form is Form A having a thermogravimetric analysis ("TGA") profile substantially as shown in FIG. 2.

10. The fumarate crystalline form according to any one of claims 1-9, wherein the crystalline form is Form A and which has 0.02-0.25% weight loss until the onset of degradation at about 150ºC as estimated by TGA.

11. The fumarate crystalline form according to any one of claims 1-10, wherein the crystalline form is Form A having dynamic vapor sorption ("DVS") isotherm substantially as shown in FIG. 3.

12. The fumarate crystalline form according to any one of claims 1-11, wherein the crystalline form is Form A which has an observed water uptake of 0.13-0.16% at 25 °C/80% Relative Humidity (RH), as measured by dynamic vapor sorption ("DVS").

13. The fumarate crystalline form according to any one of claims 1-12, wherein the crystalline form is substantially free of residual organic solvents.

14. The crystalline form according to any one of claims 1-13, wherein the crystalline form is a hydrate or a dihydrate.

15. The crystalline form according to any one of claims 1-13, wherein the crystalline form is anhydrous.

16. A pharmaceutical composition, comprising a therapeutically effective amount of a fumarate crystalline form of (*R*)-2-methyl-3-(1-((4-methyl-7-morpholinopyrido[3,4-*d*]pyridazin-1-yl)amino)ethyl)benzonitrile according to any one of claims 1-15.

17. The pharmaceutical composition according to claim 16, further comprising at least one pharmaceutically acceptable excipient and/or diluent.

18. The fumarate crystalline form according to any one of claims 1-15, alone or in combination with one or more pharmaceutically acceptable excipient and/or diluent for use in inhibiting SOS1 activity in a cell, wherein a therapeutically effective amount of the fumarate crystalline is to be contacted to the cell in which inhibition of SOS1 activity is desired.

19. Use of the crystalline form of (*R*)-2-methyl-3-(1-((4-methyl-7-morpholinopyrido[3,4-*d*]pyridazin-1-yl)amino)ethyl)benzonitrile according to any one of claims 1-15, alone or in combination with one or more pharmaceutically acceptable excipient and/or diluent, in the manufacture of medicament for treating cancer in a subject in need thereof.

20. The use according to claim 19, wherein the fumarate crystalline form of (*R*)-2-methyl-3-(1-((4-methyl-7-morpholinopyrido[3,4-*d*]pyridazin-1-yl)amino)ethyl)benzonitrile is to be administered in an amount of between 0.01 to 100 mg/kg per day.

21. The use according to claim 19, wherein (*R*)-2-methyl-3-(1-((4-methyl-7-morpholinopyrido[3,4-*d*]pyridazin-1-yl)amino)ethyl)benzonitrile is to be administered in an amount of between 0.1 to 50 mg/kg per day.

22. The use of claim 19, wherein the cancer is selected from the group consisting of Cardiac: sarcoma (angiosarcoma, fibrosarcoma, rhabdomyosarcoma, liposarcoma), myxoma, rhabdomyoma, fibroma, lipoma and teratoma; Lung: bronchogenic carcinoma (squamous cell, undifferentiated small cell, undifferentiated large cell, adenocarcinoma), alveolar (bronchiolar) carcinoma, bronchial adenoma, sarcoma, lymphoma, chondromatous hamartoma, mesothelioma; Gastrointestinal: esophagus (squamous cell carcinoma, adenocarcinoma, leiomyosarcoma, lymphoma), stomach (carcinoma, lymphoma, leiomyosarcoma), pancreas (ductal adenocarcinoma, insulinoma, glucagonoma, gastrinoma, carcinoid tumors, vipoma), small bowel (adenocarcinoma, lymphoma, carcinoid tumors, Kaposi's sarcoma, leiomyoma, hemangioma, lipoma, neurofibroma, fibroma), large bowel (adenocarcinoma, tubular adenoma, villous adenoma, hamartoma, leiomyoma); Genitourinary tract: kidney (adenocarcinoma, Wilm's tumor (nephroblastoma), lymphoma, leukemia), bladder and urethra (squamous cell carcinoma, transitional cell carcinoma, adenocarcinoma), prostate (adenocarcinoma, sarcoma), testis (seminoma, teratoma, embryonal carcinoma, teratocarcinoma, choriocarcinoma, sarcoma, interstitial cell carcinoma, fibroma, fibroadenoma, adenomatoid tumors, lipoma); Liver: hepatoma (hepatocellular carcinoma), cholangiocarcinoma, hepatoblastoma, angiosarcoma, hepatocellular adenoma, hemangioma; Biliary tract: gall bladder carcinoma, ampullary carcinoma, cholangiocarcinoma; Bone: osteogenic sarcoma (osteosarcoma), fibrosarcoma, malignant fibrous histiocytoma, chondrosarcoma, Ewing's sarcoma, malignant lymphoma (reticulum cell sarcoma), multiple myeloma, malignant giant cell tumor chordoma, osteochronfroma (osteocartilaginous exostoses), benign chondroma, chondroblastoma, chondromyxofibroma, osteoid osteoma and giant cell tumors; Nervous system: skull (osteoma, hemangioma, granuloma, xanthoma, osteitis deformans), meninges (meningioma, meningiosarcoma, gliomatosis), brain (astrocytoma, medulloblastoma, glioma, ependymoma, germinoma (pinealoma),

glioblastoma multiform, oligodendroglioma, schwannoma, retinoblastoma, congenital tumors), spinal cord neurofibroma, meningioma, glioma, sarcoma); Gynecological: uterus (endometrial `carcinoma (serous cystadenocarcinoma, mucinous cystadenocarcinoma, unclassified carcinoma), granulosa-thecal cell tumors, Sertoli-Leydig cell tumors, dysgerminoma, malignant teratoma), vulva (squamous cell carcinoma, intraepithelial carcinoma, adenocarcinoma, fibrosarcoma, melanoma), vagina (clear cell carcinoma, squamous cell carcinoma, botryoid sarcoma (embryonal rhabdomyosarcoma), fallopian tubes (carcinoma); Hematologic: blood (myeloid leukemia (acute and chronic), acute lymphoblastic leukemia, chronic lymphocytic leukemia, myeloproliferative diseases, multiple myeloma, myelodysplastic syndrome), Hodgkin's disease, non-Hodgkin's lymphoma (malignant lymphoma); Skin: malignant melanoma, basal cell carcinoma, squamous cell carcinoma, Kaposi's sarcoma, moles dysplastic nevi, lipoma, angioma, dermatofibroma, keloids, psoriasis; and Adrenal glands: neuroblastoma.

23. The use according to claim 19, wherein the cancer is a SOS1-associated cancer.

24. The use according to claim 19, wherein the cancer is non-small cell lung cancer.

25. The use according to claim 19, wherein the subject is an adult patient.

26. The use according to claim 19, wherein the subject is a pediatric patient.