Title (en)

NOVEL CRYSTALLINE FORMS OF FLUFENACET, METHODS FOR THEIR PREPARATION AND USE OF THE SAME

Title (de)

NEUARTIGE KRISTALLINE FORM VON PYROXASULFON, VERFAHREN ZU IHRER HERSTELLUNG UND VERWENDUNG DERSELBEN

Title (fr)

NOUVELLES FORMES CRISTALLINES DE FLUFÉNACET, SON PROCÉDÉ DE PRÉPARATION ET SON UTILISATION

Publication

EP 4073050 A4 20240103 (EN)

Application

EP 21731373 A 20210120

Priority

- GB 201918391 A 20191213
- CN 2021072799 W 20210120

Abstract (en)

[origin: GB2589919A] A crystalline modification I of flufenacet (N-(4-fluorophenyl)-N-(1-methylethyl)-2-{[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]oxy} acetamide characterised by an X-ray powder diffractogram (XRD) exhibiting at least three of the reflexes 8.0, 15.4, 16.1, 18.6, 19.5, 23.0, 24.1, 26.0, 26.7, and 29.4 as 2θ±0.2 degree in an X-ray powder diffractogram (XRD) recorded using Cu—Kα radiation at 25 °C. The polymorphic form may also be characterised by an infrared (IR) spectrum with characteristic functional group vibration peaks at wavenumbers (cm-1, ±0.2%) of one or more of 1651.72, 1506.90, 1419.58, 1326.96, 1151.12, 954.10, 941.28, 622.15, and 611.46 cm-1, a melting point of from 79.3-80.8 °C, and and/or a differential scanning calorimetry (DSC) profile having an endothermic melting peak with onset at 79.3 °C and peak maximum at 80.3 °C. There is also provided a method for preparing the crystalline modification of flufenacet comprising: i) providing a solution of flufenacet in a solvent system comprising a one or more solvents; ii) precipitating the crystalline modification I of flufenacet from the solution; and iii) isolating the precipitated crystalline modification I of flufenacet. A preferred solvent is ethanol. Compositions comprising the crystalline modification I of flufenacet and its use in the control of unwanted plant growth are also provided.

IPC 8 full level

C07D 285/13 (2006.01); **A01N 43/82** (2006.01)

CPC (source: EP GB)

A01N 43/82 (2013.01 - EP GB); **C07D 285/13** (2013.01 - EP GB)

Citation (search report)

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