

Title (en)

PIPERAZINE COMPOUNDS WITH A HERBICIDAL ACTION

Title (de)

PIPERAZINVERBINDUNGEN MIT HERBIZIDER WIRKUNG

Title (fr)

COMPOSÉS PIPÉRAZINIQUES À ACTION HERBICIDE

Publication

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Application

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Abstract (en)

[origin: WO2008152073A2] The invention relates to piperazine compounds of the following defined general formula (I) and to their use as herbicides. The invention also relates to crop protection agents and to a method for combating undesired plant growth. In formula (I), the variables are defined as follows: R1 is selected from halogen, cyano, nitro, Z-C(=O)-R11, phenyl and a 5- or 6-membered heterocyclic group that has 1, 2, 3 or 4 heteroatoms, selected from O, N and S as ring atoms, wherein phenyl and the heterocyclic group are unsubstituted or have 1, 2, 3 or 4 substituents R1a; Z stands for a covalent bond or a CH<sub>2</sub> group; R11 represents hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>5</sub>-C<sub>6</sub> cycloalkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl and similar; R2 represents hydrogen, halogen, nitro, cyano, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>2</sub>-C<sub>4</sub> alkenyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, benzyl or a group S(O)<sub>n</sub>R21, wherein R21 stands for C<sub>1</sub>-C<sub>4</sub> alkyl or C<sub>1</sub>-C<sub>4</sub> haloalkyl and n stands for 0, 1 or 2; R3 represents hydrogen or halogen; R4 represents C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>3</sub>-C<sub>4</sub> alkenyl or C<sub>3</sub>-C<sub>4</sub> alkynyl; R5 represents hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>3</sub>-C<sub>4</sub> alkenyl, C<sub>3</sub>-C<sub>4</sub> alkynyl or a group (=O)R51, wherein R51 stands for hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy or C<sub>1</sub>-C<sub>4</sub> haloalkoxy; R6 stands for C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> hydroxy alkyl or C<sub>1</sub>-C<sub>4</sub> haloalkyl; R7, R8 stand, independently of one another, for hydrogen, OH, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> haloalkoxy, C<sub>1</sub>-C<sub>4</sub> alkyl or C<sub>1</sub>-C<sub>4</sub> haloalkyl; R9, R10 are selected, independently of one another, from hydrogen, halogen, CN, NO<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> haloalkyl, C<sub>2</sub>-C<sub>4</sub>

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