Title (en)

HERBICIDAL AZA BISPHOSPHONIC ACID COMPOSITIONS

Title (de)

HERBIZIDE AZA-BISPHONSÄURE ZUSAMMENSETZUNGEN

Title (fr)

COMPOSITIONS HERBICIDES D'ACIDE AZA-BIPHOSPHONIQUE

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Application

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Abstract (en)

[origin: WO9510188A2] Herbicidal compositions comprising: (A) a compound of formula (I), wherein R<1> is hydrogen, hydroxy, C1-C4 alkoxy, halogen, C1-C4 alkyl, C1-C4 haloalkyl, hydroxy-C1-C4-alkyl, hydroxy-C1-C4-alkoxy or N(R<6>)(R<7>) wherein R<6> and R<7> are each independently hydrogen or C1-C3 alkyl; R<2> and R<3> are each independently hydrogen; hydrocarbyl; substituted hydrocarbyl; hydrocarbyloxy; substituted hydrocarbyloxy; hydrocarbyl-S(O)m-; or substituted hydrocarbyl-S(O)m-; or R<2> and R<3> together form a 3-6 membered carbocyclic ring, optionally substituted with halogen, hydroxy, C1-C6 alkyl, C1-C6 alkoxy, C1-C6 alkylthio or N(R<8>)(R<9>) wherein R<8> and R<9> are each independently hydrogen or C1-C12 alkyl; and R<4> and R<5> are each independently hydrogen; hydrocarbyl; substituted hydrocarbyl; hydrocarbyloxy; substituted hydrocarbyloxy; hydrocarbylthio; substituted hydrocarbylthio; pyridyl; substituted pyridyl; or are of the formula N(R<10>)(R<11>) wherein R<10> and R<11> are independently hydrogen, hydrocarbyl or substituted hydrocarbyl; or R<4> and R<5> together with the nitrogen to which they are bound form an aziridine, piperazine, morpholine, thiomorpholine, thiomorpholine sulfinyl, thiomorpholine sulfonyl, hexamethyleneimine, piperidine, tetrahydropyridine, pyrazole, imidazole, pyrrole, triazole, tetrahydropyrimidine, dihydroimidazole, pyrroline, azetidine, perhydroindole, perhydroquinoline, perhydroisoquinoline or pyrrolidine ring, any of which may be optionally substituted with C1-C12 alkyl, halo, C6-C10 aryl, C6-C10 aryl substituted with halo or C1-C6 alkyl, C7-C16 aralkyl, C7-C16 aralkyl substituted with halo or C1-C6 alkyl, nitro, halo-C1-C10-alkyl, C1-C10 alkoxy, C1-C10 alkylthio, C1-C10 alkylsulfonyl, phenoxy, phenoxy substituted with halo or C1-C6 alkyl, C1-C10 alkenyl or cyano; or R<2> and R<4> together with the nitrogen and carbon atoms to which they are bound form an aziridine, piperazine, morpholine, thiomorpholine, thiomorpholine sulfinyl, thiomorpholine sulfonyl, hexamethyleneimine, piperidine, tetrahydropyridine, pyrazole, imidazole, pyrrole, triazole, tetrahydropyrimidine, dihydroimidazole, pyrroline, azetidine, perhydroindole, perhydroquinoline, perhydroisoquinoline or pyrrolidine ring, any of which may be optionally substituted with C1-C12 alkyl, halo, C6-C10 aryl, C6-C10 aryl substituted with halo or C1-C6 alkyl, C7-C16 aralkyl, C7-C16 aralkyl substituted with halo or C1-C6 alkyl, nitro, halo-C1-C10-alkyl, C1-C10 alkoxy, C1-C10 alkylthio, C1-C10 alkylsulfonyl, phenoxy, phenoxy substituted with halo or C1-C6 alkyl, C1-C10 alkenyl or cyano; and m is 0, 1 or 2; and agrochemically acceptable salts thereof; and (B) an agrochemically acceptable carrier therefor. In other aspects, this invention is directed to a method of controlling the growth of plants comprising applying to the area where control is desired an herbicidally effective amount of a compound of formula (I) above; as well as to certain novel compounds having a structure within the scope of formula (I) above.

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