

Title (en)
SUBSTITUTED 2-BENZ(O)YLPYRIDINES, THEIR PREPARATION AND THEIR USE AS HERBICIDES

Title (de)
SUBSTITUIERTE 2-BENZ(O)YLPYRIDIN DERIVATE, DEREN HERSTELLUNG UND DEREN VERWENDUNG ALS HERBIZIDE

Title (fr)
DERIVES DE 2-BENZ(O)YLPYRIDINES SUBSTITUEES, LEUR PREPARATION ET LEUR UTILISATION COMME HERBICIDES

Publication
EP 0968188 A1 20000105 (DE)

Application
EP 98913689 A 19980309

Priority
• DE 19711569 A 19970320
• EP 9801354 W 19980309

Abstract (en)
[origin: WO9842671A1] Substituted 2-benz(o)ylpyridines of formula (I) and the salts thereof, wherein n = 0, 1; x = CO, CH₂, CH(C1-C4-alkyl), CH-OH, CH-CN, CH-halogen, C(halogen)₂, CH-CONH₂, CH-CO-O(C1-C4-alkyl), CH-O(C1-C4-alkyl), C(CN) (C1-C4-alkyl); R<1> = halogen, C1-C4-halogen alkane, C1-C4-alkylthio, C1-C4-alkyl sulfinyl, C1-C4-alkyl sulfonyl; R<2> = H, halogen; R<3> = H, NO₂, OH, halogen, C1-C4-alkoxy; R<4> = H, NO₂, OH, halogen, C1-C4-alkyl, C1-C4 halogen alkane, C1-C4-alkoxy; R<5> = H, NO₂, CN, halogen, C1-C8-alkyl, C3-C8-alkenyl, C3-C8-alkinyl, C3-C8-cycloalkyl, C1-C8-halogen alkane, C2-C8-halogen alkenyl, C2-C8-halogen alkane, C1-C4-alkoxy-C1-C4-alkyl, C2-C4-alkenyloxy-C1-C4-alkyl, C2-C4-alkinyloxy-C1-C4-alkyl, C1-C4-alkylthio-C1-C4-alkyl, C1-C4-alkylsulfinyl-C1-C4-alkyl, C1-C4-alkylsulfonyl-C1-C4-alkyl, cyano-C1-C8-alkyl, cyano-C2-C8-alkenyl, cyano-C3-C8-alkinyl, optionally substituted OH, SH, SO-H, -SO₂-H, COOH or NH-COOH, -SO₂Cl, -N(R<9>, R<10>), -NH-SO₂-(C1-C8-alkyl), -N[-SO₂-(C1-C8-alkyl)]₂, -N(C1-C8-alkyl) [-SO₂-(C1-C8-alkyl)], -SO₂-N(R<9>, R<10>), -O-CO-NH-R<9>, optionally substituted CHO, -O-CHO or -NH-CHO, NH-CO-NH-R<9>, -O-CS-NH₂, -OCS-N(C1-C8-alkyl)₂, -CO-N(R<9>, R<10>), -CS-N (R<9>, R<10>), -CO-NH-SO₂-(C1-C4-alkyl), -CO-N(C1-C4-alkyl), -SO₂-(C1-C4-alkyl), hydroxycarbonyl-C1-C8-alkyl, (C1-C8-alkoxy)carbonyl-C1-C6-alkyl, -CH₂-CH(halogen)-CO-N(R<9>, R<10>), -CH₂-CH(halogen)-CN, -CH₂-CH(halogen)-CO-(C1-C4-alkyl), optionally substituted -CH₂-CH(halogen)-COOH, -CH=C(halogen)-COOH or -CH=C(C1-C4-alkyl)-COOH, optionally substituted -CH=N-OH or -CH(-Y-R<15>, -Z-R<15>), (II) or (III); R<9>, R<10> = H, C1-C8-alkyl, C3-C8-cycloalkyl, C2-C8-alkenyl, C3-C8-alkinyl, C1-C8-halogen alkane, C1-C4-alkoxy-C1-C4-alkyl, C1-C4-alkylthio-C1-C4-alkyl, C1-C4-alkylsulfinyl-C1-C4-alkyl, C1-C4-alkylsulfonyl-C1-C4-alkyl, cyano-C1-C8-alkyl, hydroxycarbonyl-C1-C4-alkyl, (C1-C4-alkoxy)carbonyl-C1-C4-alkyl, (C3-C6-cycloalkoxy)carbonyl-C1-C4-alkyl, (C1-C4-alkoxy)carbonyl-C3-C7-cycloalkyl, C1-C4-alkoxy-(C1-C4)alkoxy-carbonyl-C1-C4-alkyl, C1-C6-alkoxy, optionally substituted phenyl or phenyl-C1-C4-alkyl or R<9> + R<10> together = optionally substituted tetramethylene, pentamethylene or ethylene oxyethylene chain; Y, Z = O, S; R<15> = C1-C8-alkyl, C1-C8 halogen alkane, C1-C4-alkoxy-C1-C4-alkyl; R<16>-R<21> = H, CN, C1-C8-alkyl, C1-C4-alkoxy-C1-C4-alkyl, C1-C8-alkoxy, C1-C4-alkoxy-C1-C4-alkoxy, COOH, (C1-C8-alkoxy)carbonyl, CONH₂, (C1-C8-alkyl)aminocarbonyl, di(C1-C8-alkyl)aminocarbonyl; R<6> = H, NO₂, halogen, optionally substituted OH or COOH; R<7> = H, NO₂, halogen, optionally substituted OH; excluding those compounds in (I) in wherein X = CH₂ and R<5> = optionally substituted OH as well as R<3>, R<7> = H or R<1> = halogen as well as R<3>, R<4>, R<6>, R<7> = H. The invention further relates to the use of said substances as herbicides and for dessication/defoliation of plants.

IPC 1-7
C07D 213/61; A01N 43/40

IPC 8 full level
A01N 43/40 (2006.01); **C07D 213/61** (2006.01); **C07D 401/12** (2006.01); **C07D 405/12** (2006.01)

CPC (source: EP US)
A01N 43/40 (2013.01 - EP US); **C07D 213/61** (2013.01 - EP US)

Citation (search report)
See references of WO 9842671A1

Cited by
US9497964B2; US10136642B2

Designated contracting state (EPC)
CH DE FR GB LI

DOCDB simple family (publication)
WO 9842671 A1 19981001; AR 012136 A1 20000927; AU 6829298 A 19981020; CA 2283981 A1 19981001; EP 0968188 A1 20000105; JP 2001518103 A 20011009; US 6337305 B1 20020108; ZA 982327 B 19990920

DOCDB simple family (application)
EP 9801354 W 19980309; AR P980101290 A 19980320; AU 6829298 A 19980309; CA 2283981 A 19980309; EP 98913689 A 19980309; JP 54480598 A 19980309; US 38103399 A 19990915; ZA 982327 A 19980319