

가 2 3-1

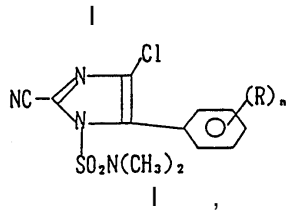
가 2 3-1

(74)

:

(54)

(b) (a) / (Phycomycetes)
 (c) (spreader)



R
 n 1 5

가

298196

(a) (b) ()

298196

(a)

[: 1-(2- -2-)-3-] (

337103

[: N-(2-)-N-(2,6-)-DL- (:)],

가

(a)

가

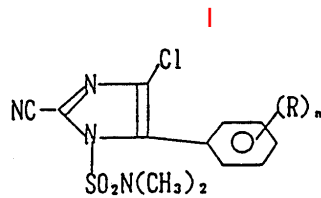
(a) (c) () , 298196 ,
 . JP-A ()3-11003 ('JP-A')

가 가
 가 가 (Phycomycetes) 가

가 가
 가 가

(b) (a) I
 가 (a) (c) (a)

(a) I
 (b) (c) (spreader) /



R
 n 1 5

I , R 1 6 . n 2 , , R

4- -2- -1- -5-(4-) (1),
 4- -2- -1- -5-(4-) (2),
 4- -2- -1- -5-(4-) (3)
 4- -2- -1- -5-(3- -4-) (4).
 I , , 298196 705823

(b) (: 4), ; (: 4),

[1a]

			()
1			LRO (Genapol LRO Fluid) [](Hoechst AG)]
2		-C ₁₃ 가	(Lutensol) TO 7 [(BASF AG)]
3	C ₁₀ +	C ₁₀ 가	ON 60 ()
4			(AGRAL) 30 [(ICI Agrochemicals)]
5		90%	90 ()
6			(AGRAL PLUS) ()
7			(ARKOPAL) N-100 ()
8			(Citowett CITOWETT)()
9			X-60()
10			(Frigate ^R) [(ISK Biotech Europe, Ltd.)]
11			(SOPROPHOR ^R) BSU [(RHONE - POULENC)]
12			(KUSARINO)(,)
13			(Noigen) EA110 [(Dai-ichi Kogyo Seiyaku Co., Ltd.)]
14	+ (12%)	+ (20%) (12%))	(TOKUSEI RINO) ()

[1b]

			()
15			(RHODASURF ^R) 860/P (-)
16			

			D-3605[(Takemoto Oils and Fats Co., LTd.)]
17			D-230 N()
18			D-233 N()
19			ET-120E()
20		(70%)	(Spray Sticker)()
21		-	()
22		-	()
23		(23)	L-77()
24	23 ()		() (L-77)
25		가	FSA10 ()

[1c]

		()
26		(Citowett PLUS CITOWETT PLUS) ()
27	c.s.p.	(COADJUVANT Chevron)()
28	(grass) 80g,	- (Hi-Point) [(CARGIL)]
29		(Sorpil) 7261[(Toho Chemical Industry Co , Ltd.)]
30	+	7337()
31		7445()
32		(Surfactant) WK
33		(TREND ^R)[(E. I. du Pont)]
34	-	(Poligen) WE3()

35		(Pepol) AH-053 2184Y ()
36	(benceno Surfonato de sodio eter) 45	(COADJUVANT TRITON) ACT-M
37	(Acetite Mineral) 85%	(COADJUVANT ACETITE ANPLUS)
38	83%	(COADJUVANT ASSIST OIL)
39	7mol EO	(Ethylan) D257

(c) ; , , 가 . ;
2 .

[2]

		()
40		(Monogen) Y-100 ^R ()
41		(New Kalgen) EP-70G ()
42	-2- -	(Genopur) SB 1970J ()
43		(Hostapon) T H/C()
44	RO-(EO) ₂ -SO ₃ Na ;	LRO ()
45	(linosulfato de calcio) 20+12	(COADJUVANT RINO)

(c) (NEEDS)[(Kao Corporation)]³ , , 가
(Arguard) T/50() .

[3]

		()
46		()
47		(RHODAMEEN) ^R (-)

(c) / (SCOIL)(MVRC) / (:)
) , , 4 , . , .

[4]

			()
48		53	90%
49		54	
50		55	(MVRC)
51		56	()
52		57	(Ethokem)[(Midkem Agrochemicals)]
58		/ (coupler) 가	(Seawet SEAWET) [- (Sea-Born Subsidiary Lane, Inc.)]

(c) / 5 , (:)

[5]

			()
59			(ATPLUS) 411F()
60			411F ()
61			(SUN OIL ADJUVANT) [.) , (Schering Agrochemicals, Ltd
62			(OLEOTAN) [(Biomex)]
63			(PRIME OIL)

(c) / (ISHIOIL)[: 가 ; (Ishihara Sangyo
 6 Kaisha, Ltd.)] 가 .

[6]

			()
--	--	--	-----

64	()		
65	()		()
66	()		
67		(98%) + (tensio activo)(2%)	(가 ,)
68			- (AGRI-DEX Agri-Dex) [(Helena Chemical Company)]

(c) () / ,
 (Soy Dex)[]
 DP 11E[], (Fyzol) 11E[], () ,
 (Atplas) 411[], (Herbimax)[
 (Love Land Industries, Inc.)], (Competitor Crop Oil Concentrate)[
 (Red Pancer Chemical)], (Actipron)[(Oil Co.)], (DASH)[],
 (Atlas Adherb)[(Atlas Interlates, Ltd.)], (Cropspray)[
 (Tribart Farm Chemical)] (Agravia) 11E[(Wakker Chemie)], (P
 enetrator)(), (Atlas Adjuvant Oil)()

[7]

69	+			+
70	2- +	+ 1- -2-	+ 1- -1-	(Agrimax) 3H

8a 8b (c) 가
 (a)

[8a]

71		() (Adherex) MR[(ISK Mexico)]
72		(Atlox) -BI()
73	sol de olamina del acido dodecil benceno sulfuronico(3 3%) + solvante(aqua) estabilizante e impurezas(67%)	(EXTRAVON ^R) 40 [-가 (Ciba-Geigy Agrochemicals, Ltd.)]
74		(SUPER CORAL) ADH -50[(Grupocoret)]
75		(SURFATE) 30(. .)

76		(ALBOL INEUM) AK ()
77		SL 92()
78		(Nisseki Noyaku Oil Emulsion)[(Nippon Oil Co., Ltd.)]
79		(OLEO RUSTICA) 11E()
80		(SURF OIL)()
81		1 (,)
82	(Acetite parafinico) 81%	(Ulvapron [®])
83		X2-5309[(Toray Industries, Inc.)]
84	(78%) + (22%)	(Helena Surfifix) ()

[8b]

		()
85		(Helena Suraid) ()
86		(COADJUVANT NATURAL OIL)[(Stoller Chemical Co.)]
87	(graso) 42	SP-
88	(45%) + 1 10%) + (45%)	(Bond)(,)
89	[가 cationic polymers)] (pseudo	(Banka)[' (ANKA)'] ()
90	() / ()	ARMA()
91	/ (77%) + (23%)	(LATRON) B - 1956 [(Rohm amp; Haas Co.)]
92	DL - 1 - p - (96%) + (4%)	(LASTIC)()

(b) 가 , (b)

가

가

가

(a) (b)

(*Rhizoctonia solani*) (*Pyricularia oryzae*) (rice blast), (C
Colletotrichum lagenarium) (rice sheath blight), (Sphaerotheca fu
liginea) (anthracnose), (Pseudoperonospora cube
nsis) 가 (powdery mildew), (Phytophthora infestans)
nsis) (downy mildew), (late blight), (*Alternaria solani*) (early
blight), (*Diaporthe citri*) (melanose), (Venturia
Penicillium digitatum) (common green mold), (Venturia
nashicola) (scab), (*Alternaria mali*)
(*Alternaria blotch*), (*Plasmopara viticola*)
(*Botrytis cinerea*) (gray mold),
(*Sclerotinia sclerotiorum*) (*Sclerotinia rot*) (rust);
(*Fusarium*), (*Pythium*), (Verticillium)
(*Plasmodiophora*) (Phytophthora capsici)
(bligh), (Phytophthora drechsleri)
(rot), (Phytophthora nicotianae var. nicotian
ae) (black shank), (Peronospora brassicae)
(Peronospora destructor)
(Phytophthora porri) (shiroiro-eki-byo),
(Aphanomyces), (brown rot),

가

(a) (b)

(: , 가), (: ,), (: , 가), (r
ipe rot), (damping-off), (southern blight)

가

(a) (b)

/

가

가

(a)

|

(b)

(a)

|

(b)

(wheat speckled leaf blotch);

가

(a) (planthopper)[
Illa xylostella],

(b) (Delphacidae),
(green rice leafhopper)[
Callosobruchus chinensis],

(diamondback moth)[

(*Plute*

Nephotettix cincticeps),

[
a)],
spider mite)[

[
(*Myzus persicae*)] ;
(*Tetranychus urticae*),

[
(*Spodoptera litur*

(two-spotted

(carmine spider mite)[

(*Tetranychus cinnabarinus*),

(*Panonychus citri*)]

(southern root-knot nematode)[

(*Meloidogyne incognita*

)]

(a)

(c)

가

c)

가

(a)

(

(a)

(b)

(c)

(dust),

(b)

(a)(

(c)

가

(:

(:

(:

(:

(:

(:

(: , , ,), (: , ,), (: , ,), (: , ,), N- -2- , N,N-

(c)

가

(a) (b) (a): (b) 1:50 5:1, 가 1:50 1:300 300:1, 1:100 100:1

(a) (b) (a): (b) 1:1,000 10,000:1, 1:100 1,000:1 , 1:10,000 10,000:1, (a)

(a): (b)(/) 1:2,000 2,000:1, 1:300 300:1, 1:100 100:1, (b)() (b) (a): (b)

(a) (c) 0.05:99.95 90:10, (a): (c) 0.2:99.8 80:20 , 1:5,000 2,000:1,

(a) (b) (a) (b) 가 5,000ppm 10 10,000g/ha 10 1 1,000ppm 1 50,000g/ha

(a) (b) - ,

(a) (b) /

0.1 500ppm 0.1 500ppm , 0.01 1,000ppm 0.01 1,000ppm,

(a) (b) /

0.01 1,000ppm 1 5,000ppm , 10 10,

000g/ha 10 50,000g/ha (a) (c)

(a) (c) 0.01 100kg/ha 0.1 10,000ppm 0.01 50ppm

(a) (b) (a) (b) (a)

(b) 가 , 가 (a) (b) (a) (b) (a) (b)

(a) (b) (a) (b) /

(a) (b) (a) (b)

(b) (a) (b) - (two-pack)

(a) (b) (a) (b) (c) 가

()	,	()	()	,	()
		()			()
			(R,S)-4-		(-N-[])
(a)	(b)				
(1)		/			가
(2)		/			가
(3)		/			가
(4)		/			가
(5)		/			가
(6)		/			가
(7)		/			가
(8)	(b)가				
(9)	(b)가				
(10) (9)			가 -		
(11) (9)			가 -	/	
(12) (9)			가		
(13) (9), (10)	(11)		가 -		
(14) (13)			(E)-2-{2-[6-(2-		)-4-
}-3-		(E)-	[- (o-		)-O-
(15) (9), (10)	(11)		가		
(16) (15)			가 3-	-5-	-5-(4-
					)-1,3-
					-2,4-
(17) (9), (10)	(12)		가		
(18) (17)			1-(2-	-2-	)-3-
(19) (9), (10)	(12)		가		
(20) (19)					
(21) (19)					
(22) (9), (10)	(12)		가		
(23) (22)			N-(2-		)-N-(2,6-
-N-(2-	-1,3-		-3-		)-DL-
			-2',6'-		, 2-
	N-		-N-(2,6-		)-DL-
	(±)-		-[N-(3-)]-
(24) (22)			N-(2-		)-N-(2,6-
					)-DL-
(25) (9), (10)	(12)		가		
(26) (25)			(E,Z)-4-[3-(4-		)-3-(3,4-
)]

(27) (9), (10) (12) , 가 /
 (28) (27) , /
 (29) (28) , , ,
 (II)
 (30) (27) , (R,S)-S-(R,S)-2 - -O- (-2- -2-), O-2,6- -p- -O,O-
 , S-
 (1,5-a) -6- 2- -5-
 (31) (27) , ()
 (32) (27) , I : / 가 1:2,0
 00 2,000:1
 (a) (c)
 (1) (a) (c)
 , 가 (i), (ii),
 (i) (ii) 가 0.1 10,000ppm 0.1 10,000mg
 1 100 10,000
 /ha
 (2) (a) (c) 0.1 10,000ppm 100 10,000
 /ha

1
 1 9
 1 100ppm 2,000ppm
 20% 20%
 [: (Suyo) (: 7.5cm) (two-leaf) ,
 () .24 10Mℓ/
 2,000ppm 1
 10Mℓ 1 100ppm 10Mℓ
 22 24 (%) 6 9 1

$$\text{발병률}(\%) = \frac{1}{a/b} \times 100$$

a 1 ,
 b () 2 (Colby) (%) 9

$$\text{이론적 발병률}(\%) = (X^1 \times Y^1) / 100$$

X 1 2 ,
 Y 1 1 (%) ,
 (%) .

[9] [(%)]

2,000ppm	1	
	100ppm	0ppm
Na ₃ PO ₄ · 12H ₂ O	0(90.2)	95
Al(H ₂ PO ₄) ₃	5(95)	100
H ₂ (PO ₃ H)	12.5(71.3)	75
Na ₂ HPO ₃ · 5H ₂ O	0(85.5)	90
K ₂ HPO ₄	2.5(90.2)	95
Na ₂ HPO ₄	2.5(95)	100
	95	100()

_____ 2

_____ 1 10 250 ppm

20% 1 20%

(:) (: 7.5cm) , (

10ml/ , 24 250ppm 1 10ml/

22 24 (%) 4 10

발병률(%)=(a/b) × 100

a

b () 3 (%) 10

3

이론적 발병률(%)=(X² × Y²)/100

X² 3 ,

Y² 1 (%) ,

(%) .

[10] [(%)]

250ppm	1		
	50ppm	12.5ppm	0ppm
Na ₃ PO ₄ · 12H ₂ O	0(77)	3(81)	90
Al(H ₂ PO ₄) ₃	0(85)	0(90)	100
H ₂ (PO ₃ H)	0(64)	3(68)	75
Na ₂ HPO ₃ · 5H ₂ O	0(72)	3(77)	85
K ₂ HPO ₄	0(81)	5(86)	95
Na ₂ HPO ₄	3(85)	3(90)	100

	85	90	100()
--	----	----	--------

_____ 3

(field)

[: (Tokiwa Kohai Hikari) 3 , P] 5 가

(3m²) 1997 5 10 . 6 10 17 1 50ppm
 11 1,500ppm 500Mℓ
 1,500ppm 1 50ppm
 6 23
 11

5	가 () 3%
4	가 3 5%
3	가 5 10%
2	가 10 30%
1	가 30%

[11] ()

	1	
1,500ppm	50ppm	Oppm
(Alexin) 95 PS *	5	1
(Phytex) 200 SL **	5	1
	3	1
() * : (Masso)가 600g/l ** : (Horticura cc)가 200g/l		

_____ 4

(:) (: 7.5cm) . 24 , 12 19 , ()
) 10Mℓ . 22 24 6
 , 1 , 1 (%) .
 12 19 .
 1
 발병률(%)=(a/b)×100
 1 ,
 a ,
 b () ,
 (%) 4 .
 (%) 12 19

4
이론적 발병률(%)=(X³×Y³)/100

X³ 4, 1, 2 3 (%) ,
Y³ (a) (E)-2-[2-[6-(2-) -4-]] -3-
(b) (E)- [-(0-)-0-] , ,
(%) .

[12] [(%)]

1	(a)		
	63ppm	2ppm	0ppm
500ppm	0(0.5)	5(10)	10
125ppm	5	0(5)	5
31ppm	5	5(50)	50
8ppm	0(5)	5(100)	100
0ppm	5	100(100)	100

[13] [(%)]

1	(b)		
	500ppm	125ppm	0ppm
500ppm	10	0(10)	10
125ppm	0(5)	0(5)	5
31ppm	10(50)	0(50)	50
8ppm	10(100)	10(100)	100
0ppm	100	100	100

[14] [(%)]

3	(a)	
	2ppm	0ppm
125ppm	5(10)	10
31ppm	5(10)	10
8ppm	10(50)	50
2ppm	50	50
0ppm	100	100

[15]

[(%)]

3	(b)		
	500ppm	125ppm	0ppm
125ppm	5(10)	10	10
31ppm	5(10)	5(10)	10
8ppm	5(50)	10(50)	50
2ppm	50	10(50)	50
0ppm	100	100	100

[16]

[(%)]

1				
	31ppm	8ppm	2ppm	0ppm
8ppm	0(7)	15(70)	85	70
2ppm	2(10)	15(100)	85(100)	100
0.5ppm	10	50(100)	70(100)	100
0.125ppm	7(10)	100	100	100
0ppm	10	100	100	100

[17]

[(%)]

2		
	31ppm	0ppm
125ppm	5(7)	10
31ppm	5(7)	10
8ppm	5(35)	50
2ppm	5(70)	100
0ppm	70	100

[18]

[(%)]

1			
	2ppm	0.5ppm	0ppm
8ppm	20(42)	10(70)	70
2ppm	7(60)	70(100)	100
0.5ppm	35(60)	85(100)	100
0.125ppm	70	100	100
0ppm	60	100	100

[19] [(%)]

1	(c)		
	31ppm	8ppm	0ppm
8ppm	0(35)	4(42)	70
2ppm	4(50)	50(60)	100
0.5ppm	20(50)	85	100
0ppm	50	60	100

5

(:) (: 7.5cm) , (1
) . 18 , 20
 (c)[3- -5- -5-(4-)-1,3- -2,4-] 20Mℓ , 2
 2 22 24 5 (%) , 2
 , 20 (%) 1
 (%) 5 (%) 20

5

$$\text{이론적 발병률(\%)} = (X^4 \times Y^4) / 100$$

X 4 5 ,
 Y 4 1 (%) ,
 (c) (%) .

[20] [(%)]

1	(c)			
	800ppm	400ppm	200ppm	0ppm
200ppm	0(4)	0(13)	0(48)	87
100ppm	0(5)	0(14)	0(52)	95
50ppm	0(5)	0(14)	0(52)	95
0ppm	5	15	55	100

6

[: (Ponderosa)] (: 7.5cm) . (four-leaf)
 , () . 6 , 21 23
 1 , 10Mℓ
 . 22 24 3 5 , 21 23
 , 1 (%) .
 (%) 6 (%) 21 23

6

이론적 발병률 (%) = $(X^5 \times Y^5) / 100$

X⁵ 6, 1, (%) ,
 Y⁵ , (%) .

[21] [(%)]

1			
	2ppm	0.5ppm	0ppm
500ppm	0(10)	4(10)	10
125ppm	70(85)	60(85)	85
31ppm	70(100)	85(100)	100
8ppm	85(100)	100	100
0ppm	100	100	100

[22] [(%)]

1				
	8ppm	2ppm	0.5ppm	0ppm
500ppm	2	2	0(7)	10
125ppm	0(13)	2(13)	10(59)	85
31ppm	7(15)	7(15)	20(70)	100
8ppm	7(15)	10(15)	60(70)	100
0ppm	15	15	70	100

[23] [(%)]

1			
	31ppm	8ppm	0ppm
500ppm	0(8.5)	0(10)	10
125ppm	4(72)	20(85)	85
31ppm	60(85)	70(100)	100
8ppm	30(85)	100	100
0ppm	85	100	100

7

995 5 9 (: .5 30 6 6 3 , P) 7 가 (5m²) 1
 24 500 750Mø 1 .6 14
 24 .

5	가 () 7%
4	가 7 10%
3	가 10 20%
2	가 20 30%
1	가 30%

[24]

1		
	400ppm	0ppm
12.5ppm	5	3
0ppm	1	1

8
 (:) (: 7.5cm)
 1 A[10Mø , 가 , 25
] 22 24 .24 , (6
) 1 24 (%) .
 25 , 1
 1
 발병률(%)=(a/b) × 100
 a
 b () ,
 (%) 7 .
 (%) 25 .

7

이론적 발병률(%)=(X⁶ × Y⁶)/100

X⁶ 7 , (%) ,
 Y⁶ 1 A (%) .

[25] [(%)]

1	A	
	50ppm	0ppm
0.2ppm	0(7)	7
0.025ppm	70(100)	100
0ppm	100	100

9
 (:) (: 7.5cm) , 26 27
 A(10MØ) 가 . 24 ()
 22 24 3 , 26 2
 7 (%) 8 (%) 26 27
 8

이론적 발병률(%)=(X⁷×Y⁷)/100

X⁷ 1 A (%) , (%)
 Y⁷ A (%) .

[26] [(%)]

1	A	
	50ppm	0ppm
0.8ppm	9(47)	47
0.4ppm	37(50)	50
0ppm	100	100

[27] [(%)]

1	A	
	200ppm	0ppm
3ppm	0(31)	31
1.5ppm	3(37)	37
0ppm	100	100

10
 (:) (: 7.5cm) , 28 (1

() (- 6) 10Mℓ
 22 24 1 28
 (%) 9 (%) 28

9
 이론적 발병률(%)=(X⁸×Y⁸)/100

X⁸ 9 1 (%)
 Y⁸ - (%)

[28]
 [(%)]

1	-		
	2,000ppm	500ppm	0ppm
50ppm	12.5(48.8)	40(55.3)	65
0ppm	75	85	100

11

29a 29b () 500 1,000 1 100ppm 12.5p
 100ppm 12.5ppm 가
 pm
 (:) (: 7.5cm)
) . 15 24 , 4 6 0.25m² 20Mℓ , 1
 22 24 29a 29b

4	가 () 20%
3	가 20 40%
2	가 40 60%
1	가 60%

[29a]

()	1 (ppm)		()	1 (ppm)	
	100	12.5		100	12.5
1	500	- 4	23	500	- 4

2	500	-	4	25	500	-	4
3	500	-	4	26	500	4	4
4	500	4	3	27	500	4	4
5	500	4	3	28	500	-	4
6	500	4	2	29	500	-	4
7	500	4	4	30	500	-	4
8	500	4	4	31	500	-	4
9	500	-	4	32	500	-	4
10	1,000	4	3	33	500	-	4
11	500	-	4	34	500	-	4
12	500	-	4	35	500	-	4
13	500	-	4	36	500	4	3
14	500	-	4	37	500	4	4
15	500	-	4	38	500	4	4
16	500	-	4	40	500	-	4
17	500	-	4	41	500	-	4
18	500	-	4	42	500	-	4
19	500	-	4	43	500	-	4
20	500	-	4	44	500	-	4
21	500	3	-	45	500	4	3
22	500	-	4	46	500	-	4

[29b]

()	1 (ppm)		()	1 (ppm)			
	100	12.5		100	12.5		
47	500	-	4	68	1,000	-	4
48	500	4	4	70	500	-	4
49	500	4	3	71	500	-	4
50	500	4	4	72	500	4	4
51	500	4	4	73	500	-	3
52	500	4	4	74	500	-	4
53	500	4	4	75	500	-	4
54	500	4	4	76	500	4	4
55	500	4	4	77	500	4	4
56	500	-	4	78	500	-	4
57	500	4	4	79	500	-	4
59	500	4	4	80	500	-	4
60	500	4	4	81	500	-	4
61	500	-	4	82	500	-	4
62	500	-	4	83	500	-	4

63	500	-	4	84	500	-	4
64	500	-	4	85	500	-	4
65	500	-	4	86	500	-	4
66	500	-	4	87	500	-	4
67	500	-	4			1	1

12

30 가 () 500 1 400ppm 12.5ppm
 , 1 400ppm 가 (A, B C)
 , 1 400ppm 12.5ppm 가

[30]

			()
A			(APPLAUCH) ^R [(Kao Corporation)]
B		50%	(Alsoap) 30[(Take da Chemical Industries, Ltd.)]
C			(Tween) 20[(Wako Pure Chemical Industries, Ltd.)]

(:) (: 7.5cm) . 4 , 0.25m² 20Mℓ ()
 . 11 22 24 . 3 , 31

[31]

()		1 (ppm)		()		1 (ppm)	
		400	12.5			400	12.5
7	500	3	-	55	500	3	-
19	500	4	-	61	500	3	-
22	500	3	-	67	500	4	-
23	500	-	4	76	500	3	-
25	500	-	3	88	500	-	3

27	500	3	-	90	500	-	4
35	500	4	-				
39	500	-	4	A	500	2	-
42	500	-	4	B	500	2	-
43	500	-	4	C	500	2	-
46	500	-	3			1	1

13

32 : () , 2,000 1 100ppm 1 100ppm 가
 (:) (: 7.5cm) . 4 , 0.25m² 20Mℓ ()
) 11 22 24 3 32

[32]

	23	24	39	88	90	
	4	4	4	4	4	2

14

58 : 91 () 500 1 가
 (:) (: 7.5cm) . 24 , ()
) 0.25m² 20Mℓ 11 22 24 3
) 33

[33]

1			
	58 (500)	91 (500)	
1.6ppm	4	4	3
0.8ppm	4	4	1
0.4ppm	1	3	1

15
 34 가 () 500 , 2,000 1 12.5ppm 1 12.5ppm
 (:) (: 7.5cm) , 0.25m² 20Mℓ
 22 24 15 24 , 5 , 1
 (%) 34

[34]
 [(%)]

	23	24	39	88	89	90	
500	100	100	100	95	90	100	65
2,000	100	100	100	83	-	95	
1	14						

1
 (1) 1 5 (,)
 (2) 7
 (3) 82
 (4) 2
 (5) 4

2
 (1) 1 5
 (2) 3 16
 (3) 73
 (4) 2
 (5) 4

3
 (1) 1 5
 (2) 18
 (3) 63
 (4) 2
 (5) 12

4
 (1) 78
 (2) - 2
 (3) 5
 (4) 15 1 79:20:1

5
 (1) 78
 (2) - 2
 (3) 5
 (4) 15 1 8:1:1

6

- (1) 2 0.5
- (2) 0.5
- (3) 20
- (4) 74
- (5) 5

-
- (1) 3 0.25
 - (2) 0.25
 - (3) 99.0
 - (4) 0.5

-
- (1) 78
 - (2) -
 - (3) 5
 - (4) 15
- 1 () 0.8:76.8:22.4

-
- (1) 78
 - (2) -
 - (3) 5
 - (4) 15
- 1 A() 5:67.2:27.8

-
- (1) 1 0.25
 - (2) DL(가) 0.25
 - (3) 99.0
 - (4) 0.5

-
- (1) 1 0.5
 - (2) DL(가) 0.5
 - (3) 20
 - (4) 74
 - (5) 5

-
- (1) 1 5
 - (2) () (-) 5
 - (3) 84
 - (4) 2
 - (5) 4

-
- (1) 1 () 11.1
 - (2) FLX(, -) 1.1
 - (3) (Supragil) MNS/90() 1.1
 - (4) (Vegum) 1.7
 - (5) () 11.1
 - (6) SM5572F() 0.1
 - (7) 73.8

(1) 90 (7) 가 2 μ m가
 14
 (1) 1 () 10.0
 (2) FLX(, -) 1.0
 (3) MNS/90() 1.0
 (4) 1.5
 (5) () 10.0
 (6) SM5572F() 0.1
 (7) 66.4
 (8) 10.0
 (1) (8) 가 2 μ m가

(1) 78
 (2) - - 2
 (3) 5
 (4) 15 4:1 20%

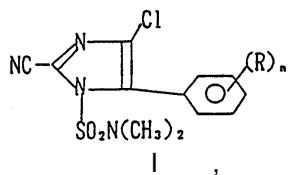
가

/ 가 ,
 가 ,

(57)

1.

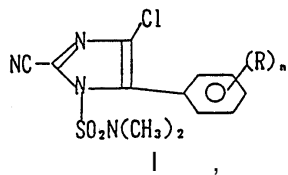
- (a) ; (Phycomycetes)
- (b) ;
- (c) (spreader)



R
 n 1 5

2.

- 1 , (a) ; (b)



R
 n 1 5

3.

- 2 , (b)가

R
n 1 5
12.

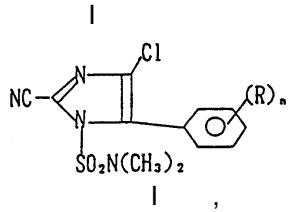
13.

14.

11 , 가 1:5,000 2,000:1

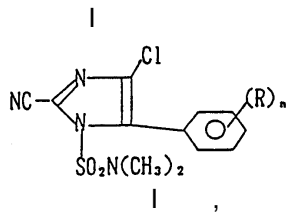
15.

(a) ;
(b) ;
(c) ,



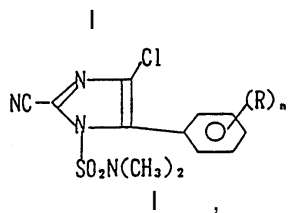
R
n 1 5
16.

15 , (a) I ; (b)



R
n 1 5
17.

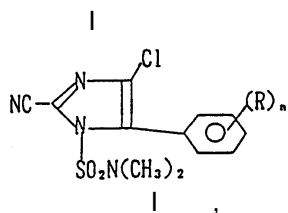
15 , (a) I ; (c)



R
n 1 5
18.

19.

(a) I (c) I
(a) I



R
n 1 5 .
20.