

# Classification of Fungicides and Bactericides According to Chemical Group and Primary Target

## Bacterial type IIA topoisomerase (DNA gyrase and topoisomerase IV) inhibition

### 4-Pyridone group

A 57132, A 57241, A 57274 (A 62917), A 60919 (PD 118106), A 61867 (BRN 4276829), A 62251 (A 57531; PD 137954), A 62255, A 62824, A 65326, ACH 702, Acorafloxacin (avarofloxacin), ADDNC (A 65485), Alalevonadifloxacin, Alatrofloxacin, Amifloxacin, Antofloxacin, AT 4929, Balofloxacin, BAY Y-3118 free base, Besifloxacin, Binfloxacin, BMY 40062, BMY 40397, BMY 42230, BMY 43261, BMY 43748, BMY 45243, BMY 45706, BRN 4913428 (PD 131199), Cadrofloxacina, Cefefloxacin, Chinfloxacin, CI 990 (PD 131112), Ciprofloxacin, Clinafloxacin, CP 100964, CP 104830, CP 105532 (PD 125275), CP 115953, CP 115955, CP 135803, CP 67015, CP 67804, CP 74667, CP 92121, CP 99433, Danofloxacin, DC 159a free base, Delafloxacin, Desfluorociprofloxacin (SQ 4004), Difloxacin, DJ 6783, DK 507k, DN 9494, Droxacina, DS 8587 free base, DU 6611, DU 6668, DV 7751a (DV 7751), DW 8186, DX 619, E 3604, E 3846, E 4441, E 4474, E 4480, E 4497, E 4501, E 4502, E 4527, E 4528, E 4534, E 4535, E 4695, Ecenofloxacin, EN 272, Enoxacin, Enrofloxacin, Esafloxacin, FA 103, Fandofloxacin, Finafloxacin, Fleroxacin, Flumequine, Garenoxacin, Gatifloxacin, Gemifloxacin, Grepafloxacin, Ibafoxacin, Irloxacin, K 12, KB 5246, KPI 10 free base (WQ 3810), Lascufloxacin, Levofloxacin, Levonadifloxacin, Levonadifloxacin arginine (WCK 771), Lomefloxacin, Marbofloxacin, Merafloxacin, Metioxate, MF 5101, MF 5103, MF 5112 free base, MF 5126, MF 5137, MF 5143, MF 5168, Miloxacin, Moxifloxacin, Nadifloxacin, Nalidixic acid, Nemonoxacin, Norfloxacin, NSFQ 104, NSFQ 105, Ofloxacin, Olamufloxacin, Orbifloxacin, Oxolinic acid, Ozenoxacin, Pazufloxacin, PD 111834, PD 112388, PD 114111, PD 115311, PD 116507, PD 117596, PD 118362, PD 119344, PD 129626, PD 131628, PD 135042 (AM 1147), PD 135144 (BMY 33315), PD 137156, PD 138312, PD 140248, PD 163449, PD 164488, Pefloxacin, Pipemidic acid, Piromidic acid, Piroxacin, Pradofloxacin, Premafloxacin, Prulifloxacin, PubChem CID-11531032, PubChem CID-11566845, PubChem CID-11610627, PubChem CID-11696318, PubChem CID-11844920, PubChem CID-11996799, PubChem CID-11996800, PubChem CID-11997263, PubChem CID-25022869, PubChem CID-44408626, PubChem CID-44408894, PubChem CID-44408896, PubChem CID-44408994, PubChem CID-44409001, PubChem CID-44409010, PubChem CID-53236573, PubChem CID-53236796, PubChem CID-122195336, PubChem CID-122195337, QA 241 free base, RO 13-5478, RO 14-9578, Rosoxacin, Rufloxacin, S 25932, S 31076, Sarafloxacin, Sitafloxacin, Sparfloxacin, T 14097, Temafloxacin, Tioxacin, Tosufloxacin, Trovafloxacin, Ulifloxacin, Vebufloxacin (benofloxacin), VG 6/1, WCK 1152 free base, WIN 57273, WIN 57294, WIN 58161, WQ 2743, WQ 2756, WQ 2908, WQ 2942, WQ 3330, Y 688, Zabofloxacin

## Small ribosomal subunit inhibition

### 2,4(or 5)-Diaminocyclohexanol group

1-Epidactimicin, A 396I (SS 56D), Ambistrin (streptoduocin), Amikacin, Apramycin (nebramycin II), Aprosamine, Arbekacin, Astromicin (fortimicin A), Astromicin B (fortimicin B), Bekanamycin (kanamycin B; nebramycin V), Betamicin (gentamicin B), Butikacin, Butirosin A, Butirosin B, Dactimicin, Destomycin A, Destomycin B, Dibekacin, Dihydrostreptomycin, Etimicin, Fortimicin AE, Fortimicin AH, Fortimicin AI, Fortimicin AK, Fortimicin AL, Fortimicin AM, Fortimicin AN, Fortimicin AO, Fortimicin AP, Fortimicin AQ, Fortimicin AS, Fortimicin C, Fortimicin D, Fortimicin E (fortimicin KH), Fortimicin KE, Fortimicin KF, Fortimicin KG, Fortimicin KL<sub>1</sub>, Fortimicin KR, Framycetin (neomycin B), Geneticin (gentamicin G-418), Gentamicin A, Gentamicin A<sub>1</sub>, Gentamicin A<sub>2</sub>, Gentamicin A<sub>3</sub>, Gentamicin A<sub>4</sub>, Gentamicin B<sub>1</sub>, Gentamicin C<sub>1</sub>, Gentamicin C<sub>1a</sub>, Gentamicin C<sub>2</sub>, Gentamicin C<sub>2a</sub>, Gentamicin X<sub>2</sub>, Hybrimycin A<sub>1</sub>, Hybrimycin A<sub>2</sub>, Hybrimycin B<sub>1</sub>, Hybrimycin B<sub>2</sub>, Hybrimycin C<sub>1</sub>, Hybrimycin C<sub>2</sub>, Hybrimycin D, Hygromycin B (A 396II), Isepamicin, Istamycin A (sannamycin A), Istamycin A0 (sannamycin B), Istamycin A<sub>1</sub>, Istamycin A<sub>2</sub>, Istamycin A<sub>3</sub>, Istamycin AO, Istamycin AP (sannamycin E), Istamycin B, Istamycin B<sub>0</sub>, Istamycin B<sub>1</sub>, Istamycin B<sub>2</sub>, Istamycin C, Istamycin C<sub>0</sub>, Istamycin C<sub>1</sub>, Istamycin KL<sub>1</sub>, Istamycin X<sub>0</sub> (sannamycin G), Istamycin Y<sub>0</sub> (sannamycin H), Kanamycin (kanamycin A), Kanamycin C, Kanamycin D, Kanamycin X, Lividamine (nebramycin IX), Lividomycin, Lividomycin B (3'-deoxyparomomycin I), Mannosylparomomycin, Micronomicin (gentamicin C<sub>2b</sub>), Neamine (neomycin A; nebramycin X), Nebramine (nebramycin VIII), Nebramycin III, Nebramycin IV, Nebramycin V', Nebramycin XI, Nebramycin XII, Nebramycin XIII, Neomycin C, Neomycin F (paromomycin II), Netilmicin, NK 1001, Oxyapramycin (nebramycin VII), Paromamine (neomycin D), Paromomycin (paromomycin I; neomycin E), Pentisomicin, Plazomicin, Propikacin, Pyrankacin, Ribostamycin, Saccharocin (KA 5685), Sannamycin C, Sannamycin F, Sannamycin J, Sannamycin K, Sannamycin KR, Sannamycin L, Seldomycin, Seldomycin 1 (seldomycin factor 1), Seldomycin 2 (seldomycin factor 2), Seldomycin 3 (seldomycin factor 3), Seldomycin 5 (seldomycin factor 5), Sisomicin, Sisomicin B, Sisomicin D, Spectinomycin, Sporaricin A, Sporaricin B, Sporaricin C, Sporaricin D, Sporaricin E, SS 56A, SS 56B, SS 56C, Streptomycin, Streptoniazid (streptonicozid), Tobramycin (nebramycin VI), Trospectomycin, Verdamicin, Verdamicin C<sub>2</sub>, Vertilmicin

### (4aRS,5aRS)-Sancycline group

7-Iodosancycline, Amicycline, Apicycline, Bromotetracycline (bromotetracycline), Chlortetracycline (chlortetracycline), Clomocycline, Demeclocycline, Demecycline, DMG-DMDOT (DMG-DM DOT), DMG-MINO, Doxycycline, Eravacycline, Etamocycline, Glycocyline, Guamecycline, Lymecycline, Meclocycline, Meglucycline, Metacycline (methacycline), Minocycline, Morphocycline, Nitrocyline, Omadacycline, Oxytetracycline, Pecocycline, Penimepicycline, Penimocycline, Pipacycline, Rolitetracycline, Sancycline, Sarecycline, Tetracycline, Tigecycline, TP 271

## Large ribosomal subunit inhibition

### Cytosine group

Amicetin (allomycin), Antelmycin (anthelmycin), Arginomycin, Bagougeramine A, Bagougeramine B, Bamicetin, Blastidicin H, Blastidicin S, Cytimidine, Cytomycin (saitomycin), Cytosamine, Cytosaminomycin A, Cytosaminomycin B, Cytosaminomycin C, Cytosaminomycin D, Gougerotin, Mildiomycin, Mildiomycin B, Mildiomycin C, Mildiomycin D, Mildiomycin M, Norplicaceticin, Oxamicetin, Oxyplaceticin (cytosaminomycin E), Plicaceticin (amicetin B), Rodaplutin, SCH 36605, SF 2457

### 3-Glutarimidyl group

9-Methylstreptimidone (S 632A<sub>2</sub>), Acetoxycycloheximide (streptovitamin E-73), Actiketol, Actiphenol (actinophenol), Cycloheximide, Epiderstatin, Inactone, Isocycloheximide, Isomigrastatin, Lactimidomycin, Naramycin B, Neoisocycloheximide, S 632A<sub>3</sub>, Streptimidone (S 632A<sub>1</sub>), Streptovitamin A, Streptovitamin B, Streptovitamin C<sub>2</sub>

### (1R)-Propanol group

Azidamfenicol, Bromamphenicol (bromoamphenicol), Cetofenicol (cetophenicol), Chloramphenicol, Florfenicol, Monoiodoamphenicol, Racefenicol (racephenicol), Tevenel, Thiamphenicol, WIN 5094-2

## Sterol 14 $\alpha$ -demethylase inhibition

### Imidazol-1-yl group

1-Dodecylimidazole (N-dodecylimidazole), AFK 108, Aliconazole, Arasertaconazole, Azalanstat, BAY C-9263, BAY D-9603, Beclonazole, Bifonazole, Brolaconazole, Butoconazole, Ciconazole, Climbazole, Clotrimazole, Croconazole, Democonazole, Dichlorophenyl imidazoldioxolan (elubiol), Doconazole, Eberconazole, Econazole, Fenapanil, Fenticonazole, Flutrimazole, Imazalil (enilconazole), Isoconazole, Ketaminazole, Ketoconazole, Lanoconazole, Lombazole, Luliconazole, MH 0685, Miconazole, Neticonazole, OK 8705, OK 8801, Omoconazole, Orconazole, Oxiconazole, Oxpoconazole, Parconazole, Pefurazoate, PR 967-234, Prochloraz, R 31000, Sertaconazole, SM 4470, SSF 105, Sulconazole, Tioconazole, Triflumizole, UK 38667, Valconazole, Zinoconazole, Zoficonazole

### 1,2,4-Triazol-1-yl group

Albaconazole, Alteconazole, Azaconazole, BAS 110, BAS 111, BAS 45406F, Bitertanol, Bromuconazole, Cyproconazole, D 0870, Diclbutrazol, Difenconazole, Diniconazole, Efinaconazole, Embeconazole, Epoxiconazole, Etaconazole, Fenbuconazole, Fluconazole, Fluotrimazole, Fluquinconazole, Flusilazole, Flutriafol, Fosfluconazole, Furconazole, Genaconazole (SCH 39304), Hexaconazole, ICI 153066, ICI 195739, Imibenconazole, Ipconazole, Ipfentrifluconazole, Isavuconazole, Itraconazole, LAB 158241F, LAB 170250F, Mefentrifluconazole, Metconazole, Myclobutanil, Penconazole, Posaconazole, PP 969, Pramiconazole, Propiconazole, Quinconazole, Ravuconazole, Saperconazole, SCH 42427, SCH 51048, SDZ 89-485, Simeconazole, SSF 109 (huanjunzuo), SSY 726, SYN 2506, SYN 2836, SYN 2869, SYN 2903, SYN 2921, T 8581, TAK 187, TAK 456, Tebuconazole, Terconazole (triaconazole), Tetraconazole, Triadimefon, Triadimenol, Triticonazole, UK 47265, UK 51486, Uniconazole, UR 9746, UR 9751, Vibunazole (BAY N-7133), Voriconazole, YH 1715R