



FRAC LIST OF FUNGICIDE COMMON NAMES - 2016

The Common Names, MOA Code, FRAC Code and Chemical Group names included in this list are those used in the FRAC Code List and the associated List of Plant Pathogenic Organisms Resistant to Disease Control Agents.

Common Name	MOA Code	FRAC Code	Chemical Group
Acibenzolar-S-methyl	P1: benzo-thiadiazole BTH	P	benzo-thiadiazole BTH
Aldimorph	G2: Amines (morpholines) SBI Class II	5	morpholine
Ametoctradin	C8: QxI	45	triazolo-pyrimidylamine
Amisulbrom	C4: QiI	21	sulfamoyl-triazole
Anilazine	Multi-site: triazine	M8	triazine
Azaconazole	G1: DMI (SBI class 1)	3	triazole
Azoxystrobin	C3: QoI	11	methoxy-acrylates
<i>Bacillus amyloliquefaciens</i> strain D747	F6: Microbial	44	microbial disrupters of pathogen cell membranes
<i>Bacillus amyloliquefaciens</i> strain MBI600	F6: Microbial	44	microbial disrupters of pathogen cell membranes
<i>Bacillus subtilis</i> strain QST713	F6: Microbial	44	microbial disrupters of pathogen cell membranes
<i>Bacillus subtilis</i> strain FZB24	F6: Microbial	44	microbial disrupters of pathogen cell membranes
Benalaxyl	A1: Phenylamide	4	acylalanine
Benalaxyl-M (kiralaxyl)	A1: Phenylamide	4	acylalanine
Benodanil	C2: SDHI	7	phenyl-benzamide
Benomyl	B1: MBC	1	benzimidazole
Benthiavdicarb	H5: CAA fungicides	40	valinamide carbamates
Benzovindiflupyr	C2: SDHI	7	Pyrazole-carboxamide
Binapacryl	C5	29	dinitrophenyl crotonate
Biphenyl	F3: AH fungicides	14	aromatic hydrocarbons
Bitertanol	G1: DMI (SBI class 1)	3	triazole
Bixafen	C2: SDHI	7	Pyrazole-carboxamide
Blasticidin-S	D2: enopyranuronic acid antibiotic	23	enopyranuronic acid antibiotic

Boscalid	C2: SDHI	7	pyridine-carboxamide
Bromuconazole	G1: DMI (SBI class 1)	3	triazole
Bupirimate	A2: Hydroxy-(2-amino) pyrimidine	8	hydroxy-(2-amino) pyrimidine
Captafol	Multi-site: phthalimide	M4	phthalimide
Captan	Multi-site: phthalimide	M4	phthalimide
Carbendazim	B1: MBC	1	benzimidazole
Carboxin	C2: SDHI	7	oxathiin-carboxamide
Carpropamid	I2: MBI-D	16.2	cyclopropane carboxamide
chinomethionat / quinomethionate	Multi-site	M10	quinoxaline
Chloroneb	F3: AH fungicides	14	aromatic hydrocarbons
Chlorothalonil	Multi-site: chloronitrile (phthalonitrile)	M5	chloronitrile (phthalonitrile)
Chlozolinate	E3: dicarboximide	2	dicarboximide
Copper (different salts)	Multi-site	M1	inorganic
Coumoxystrobin	C3: QoI	11	Methoxy-acrylate
Cyazofamid	C4: QiI	21	cyano-imidazole
Cyflufenamid	Unknown: phenyl-acetamide	U6	phenyl-acetamide
Cymoxanil	Unknown: Cyanoacetamide-oxime	27	cyanoacetamide-oxime
Cyproconazole	G1: DMI (SBI class 1)	3	triazole
Cyprodinil	D1: AP fungicides	9	anilino-pyrimidine
Dichlofluanid	Multi-site: sulfamide	M6	sulfamide
Diclocymet	I2: MBI-D	16.2	carboxamide
Diclomezine	Unknown: pyridazinone	37	pyridazinone
Dicloran	F3: AH fungicides	14	aromatic hydrocarbons
Diethofencarb	B2: N-phenyl carbamate	10	N-phenyl carbamate
Difenoconazole	G1: DMI (SBI class 1)	3	triazole
Diflumetorim	C1: pyridinamine	39	pyridinamine
Dimethachlone	E3: dicarboximide	2	dicarboximide
Dimethomorph	H5: CAA fungicides	40	cinnamic acid amide
Dimethirimol	A2: Hydroxy-(2-amino) pyrimidine	8	hydroxy-(2-amino) pyrimidine
Dimoxystrobin	C3: QoI	11	oximino-acetamide
Diniconazole	G1: DMI (SBI class 1)	3	triazole
Dinocap	C5	29	dinitrophenyl crotonate
Dithianon	Multi-site: quinone (anthraquinone)	M9	quinone (anthraquinone)
Dodemorph	G2: Amines (morpholines) SBI Class II	5	morpholine
Dodine	U12: Unknown	U12	guanidine
Edifenphos	F2: phosphorothiolates	6	phosphorothiolates
Enoxastrobin	C3: QoI	11	methoxy-acrylates
Epoxiconazole	G1: DMI (SBI class 1)	3	triazole
Etaconazole	G1: DMI (SBI class 1)	3	triazole
Ethaboxam	Unknown: thiazole carboxamide	U5	ethylamino-thiazole carboxamide
Ethirimol	A2: Hydroxy-(2-amino) pyrimidine	8	hydroxy-(2-amino) pyrimidine
Etridiazole	F3: AH fungicides	14	1,2,4 thiadiazole
Extract from	F7: plant extract, membrane	46	terpene hydrocarbons and terpene

<i>Melaleuca alternifolia</i> (tea tree)	disruption (proposed)		alcohols
Extract from <i>Reynoutria sachalinensis</i> (giant knotweed)	P5: plant extract	P	complex mixture, ethanol extract
Famoxadone	C3: QoI	11	oxazolidine-dione
Fenamidone	C3: QoI	11	imidazolinone
Fenaminstrobin	C3: QoI	11	oximino-acetamides
Fenarimol	G1: DMI (SBI class 1)	3	pyrimidine
Fenbuconazole	G1: DMI (SBI class 1)	3	triazole
Fenfuram	C2: SDHI	7	furan-carboxamide
Fenhexamid	G3: hydroxyanilide (SBI Class III)	17	hydroxyanilide
Fenoxanil	I2: MBI-D	16.2	propionamide
Fenpiclonil	E2: PP fungicides	12	phenylpyrrole
Fenpropidin	G2: Amines (morpholines) SBI Class II	5	piperidine
Fenpropimorph	G2: Amines (morpholines) SBI Class II	5	morpholine
Fenpyrazamine	G3: SBI class III	17	amino-pyrazolinone
Fentin acetate	C6: organo tin	30	tri-phenyl tin
Fentin chloride	C6: organo tin	30	tri-phenyl tin
Fentin hydroxide	C6: organo tin	30	tri-phenyl tin
Ferbam	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Ferimzone	unknown	U14	Pyrimidinone hydrazones
Fluazinam	C5	29	2-6-dinitro anilines
Fludioxonil	E2: PP fungicides	12	phenylpyrrole
Flufenoxystrobin	C3: QoI	11	methoxy-acrylate
Flumorph	H5: CAA fungicides	40	cinnamic acid amide
Fluopicolide	B5: benzamide	43	pyridinylmethyl-benzamide
Fluopyram	C2: SDHI	7	pyridinyl-ethyl-benzamides
Fluoroimide	Multi-site contact	M11	maleimide
Fluoxastrobin	C3: QoI	11	dihydro-dioxazine
Fluquinconazole	G1: DMI (SBI class 1)	3	triazole
Flusilazole	G1: DMI (SBI class 1)	3	triazole
Flusulfamide	Unknown: benzene-sulfonamide	36	benzene-sulfonamide
Flutianil	Unknown	U13	cyano-methylene-thiazolidine
Flutolanil	C2: SDHI	7	phenyl-benzamide
Flutriafol	G1: DMI (SBI class 1)	3	triazole
Fluxapyroxad	C2: SDHI	7	pyrazole-4- carboxamides
Folpet	Multi-site: phthalimide	M4	phthalimide
Fosetyl-Al	Unknown: phosphonate	33	ethyl phosphonate
Fthalide	I1: MBI-R	16.1	isobenzofuranone
Fuberidazole	B1: MBC	1	benzimidazole
Furalaxyl	A1: Phenylamide	4	acylalanine
Furametpyr	C2: SDHI	7	pyrazole-carboxamide
Guazatine	Multi-site: guanidine	M7	guanidine
Hexaconazole	G1: DMI (SBI class 1)	3	triazole
Hymexazole	A3: heteroaromatics	32	isoxazoles

Imazalil	G1: DMI (SBI class 1)	3	imidazole
Imibenconazole	G1: DMI (SBI class 1)	3	triazole
Iminoctadine	Multi-site: guanidine	M7	guanidine
Iodocarb	F4: carbamates	28	carbamates
Ipreconazole	G1: DMI (SBI class 1)	3	triazole
Iprobenfos	F2: phosphorothiolates	6	phosphorothiolates
Iprodione	E3: dicarboximide	2	dicarboximide
Iprovalicarb	H5: CAA fungicides	40	valinamide carbamates
Isofetamid	C2: SDHI	7	phenyl-oxo-ethyl thiophene amide
Isoprothiolane	F2: phosphorothiolates	6	dithiolane
Isopyrazam	C2: SDHI	7	Pyrazole-carboxamide
Isotianil	P3: thiadiazole carboxamide	P	thiadiazole carboxamide
Kasugamycin	D3: hexopyranosyl antibiotic	24	hexopyranosyl antibiotic
Kresoxim-methyl	C3: QoI	11	oximino-acetate
Laminarin	P4 (proposed): natural	P	
Mancozeb	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Mandestrobin	C3: QoI	11	methoxy-acetamide
Mandipropamid	H5: CAA fungicides	40	mandelic acid amide
Maneb	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Mepanpyrim	D1: AP fungicides	9	anilino-pyrimidine
Mepronil	C2: SDHI	7	phenyl-benzamide
Meptyldinocap	C5	29	dinitrophenyl crotonate
Metalaxyl	A1: Phenylamide	4	acylalanine
Metalaxyl-M (= Mefenoxam)	A1: Phenylamide	4	acylalanine
Metominostrobin	C3: QoI	11	oximino-acetamide
Metconazole	G1: DMI (SBI class 1)	3	triazole
Methasulfocarb	Unknown: thiocarbamate	42	thiocarbamate
Metiram	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Metrafenone	Unknown: benzophenone	U8	benzophenone
Myclobutanil	G1: DMI (SBI class 1)	3	triazole
Naftifine	G4: SBI Class IV	18	allylamine: medical only
Nuarimol	G1: DMI (SBI class 1)	3	pyrimidine
Octhilinone	A3: heteroaromatics	32	isothiazolones
Ofurace	A1: Phenylamide	4	butyrolactone
Orysastrobin	C3: QoI	11	oximino-acetamide
Oxadixyl	A1: Phenylamide	4	oxazolidinone
Oxathiapiprolin	OSBP	U15	piperidinyl-thiazole-isoxazolines
Oxolinic acid	A4: carboxylic acids	31	carboxylic acids
Oxpoconazole	G1: DMI (SBI class 1)	3	imidazole
Oxycarboxin	C2: SDHI	7	oxathiin-carboxamide
Oxytetracycline	D5: tetracycline antibiotic	41	tetracycline antibiotic
Pefurazate	G1: DMI (SBI class 1)	3	imidazole
Penconazole	G1: DMI (SBI class 1)	3	triazole
Pencycuron	B4: phenylurea (proposed)	20	phenylurea
Penflufen	C2: SDHI	7	pyrazole-carboxamide
Penthiopyrad	C2: SDHI	7	pyrazole-carboxamide
Phenamacril	B6: actin/myosin/fimbrin Function	47	aminocynoacrylates

Phosphorous acid and salts	Unknown: phosphonate	33	
Picarbutrazox	Unknown	U17	tetrazolyloximes
Picoxystrobin	C3: QoI	11	methoxy-acrylates
Piperalin	G2: Amines (morpholines) SBI Class II	5	piperidine
Polyoxin	H4: Polyoxins	19	polyoxins
Probenazole	P2: benzisothiazole	P	benzisothiazole
Prochloraz	G1: DMI (SBI class 1)	3	imidazole
Procymidone	E3: dicarboximide	2	dicarboximide
Propamocarb	F4: carbamates	28	carbamates
Propiconazole	G1: DMI (SBI class 1)	3	triazole
Propineb	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Proquinazid	E1: Aza-naphthalenes	13	quinazolinone
Prothiocarb	F4: carbamates	28	carbamates
Prothioconazole	G1: DMI (SBI class 1)	3	triazole
Pydiflumetofen	C2: SDHI	7	N-methoxy-(phenyl-ethyl)-pyrazole-carboxamides
Pyraclostrobin	C3: QoI	11	methoxy-carbamate
Pyrametostrobin	C3: QoI	11	methoxy-carbamate
Pyraoxystrobin	C3: QoI	11	methoxy-acrylate
Pyrazophos	F2: phosphorothiolates	6	phosphorothiolates
Pyribencarb	C3: QoI	11	benzyl-carbamate
Pyributicarb	G4: SBI Class IV	18	thiocarbamate
Pyrifenox	G1: DMI (SBI class 1)	3	pyridine
Pyrimethanil	D1: AP fungicides	9	anilino-pyrimidine
Pyrimorph	H5: CAA fungicide	40	cinnamic acid amides
Pyriofenone	Unknown	U8	benzoylpyridine
Pyrisoxazole	G1: SBI: Class I	3	pyridines
Pyroquilon	I1: MBI-R	16.1	pyrrolo-quinolone
Quinoxifen	E1: Aza-naphthalenes	13	aryloxyquinoline
Quintozene (PCNB)	F3: AH fungicides	14	aromatic hydrocarbons
Sedaxane	C2: SDHI	7	Pyrazole-carboxamide
Silthiofam	C7: thiophene carboxamide	38	thiophene carboxamide
Simeconazole	G1: DMI (SBI class 1)	3	triazole
Spiroxamine	G2: Amines (morpholines) SBI Class II	5	spiroketal-amine
Streptomycin	D4: glucopyranosyl antibiotic	25	glucopyranosyl antibiotic
Sulphur	Multi-site	M2	inorganic
Tebuconazole	G1: DMI (SBI class 1)	3	triazole
Tebufloquin	Unknown	U16	4-quinolyl-acetate
Teclofthalam	Unknown: phthalamic acid	34	phthalamic acid (bactericide)
Tecnazene (TCNB)	F3: AH fungicides	14	aromatic hydrocarbons
Terbinafine	G4: SBI Class IV	18	allylamine: medical only
Tetraconazole	G1: DMI (SBI class 1)	3	triazole
Thiabendazole	B1: MBC	1	benzimidazole
Thifluzamide	C2: SDHI	7	thiazole-carboxamide
Thiophanate	B1: MBC	1	thiophanate

Thiophanate-methyl	B1: MBC	1	thiophanate
Thiram	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Tiadinil	P3: thiadiazole carboxamide	P	thiadiazole carboxamide
Tolclofos-methyl	F3: AH fungicides	14	aromatic hydrocarbons
Tolfenpyrad	C1: Respiration	39	pyrazole-5-carboxamides
Tolprocarb	I3: MBI-P	16.3	trifluoroethyl-carbamate
Tolyfluanid	Multi-site: sulfamide	M6	sulfamide
Triadimefon	G1: DMI (SBI class 1)	3	triazole
Triadimenol	G1: DMI (SBI class 1)	3	triazole
Triazoxide	Unknown: benzotriazine	35	benzotriazine
Triclopyricarb	C3: QoI	11	methoxy-carbamate
Tricyclazole	I1: MBI-R	16.1	triazolobenzothiazole
Tridemorph	G2: Amines (morpholines) SBI Class II	5	morpholine
Trifloxystrobin	C3: QoI	11	oximino-acetate
Triflumizole	G1: DMI (SBI class 1)	3	imidazole
Triforine	G1: DMI (SBI class 1)	3	piperazine
Triticonazole	G1: DMI (SBI class 1)	3	triazole
Validamycin	Unknown (Inhibition of trehalase)	U18	glucopyranosyl antibiotic
Valifenalate	H5: CAA fungicides	40	valinamide carbamates
Vinclozolin	E3: dicarboximide	2	dicarboximide
Zineb	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Zinc thiazole	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Ziram	Multi-site: dithiocarbamates and relatives	M3	dithiocarbamates and relatives
Zoxamide	B3: benzamides	22	toluamide