

Protection & Derivatization

In organic synthesis effective use of protecting groups is very important to a synthetic strategy. A useful protecting group must have the following properties:

- the protective agent must selectively react with the functional group that requires protection.
- the protective group must be introduced in high yields, without side reactions.
- the protected functional groups should be stable against a variety of reactions.
- the protective group should be capable of being selectively deprotected under specific conditions that are not adverse to the integrity of the protected compound.

A list encompasses a wide range of protective agents, from those that provide conventional protecting groups (TMS, Boc, trityl amongst others) to a new special protective agent, 1,2-bis(chlorodimethylsilyl)ethane which reacts only with aliphatic primary amines to generate azadisilacyclopentane derivatives.

B1128 	B1151 	B2334 	B1483 	B1906
B1688 	B1773 	B1699 	B1315 	
B1089 	B1702 	B0916 	B0988 	B1969

B1128	1,2-Benzenedisulfonyl Dichloride	5g	1g
B1151	1,3-Benzodithioliylium Tetrafluoroborate		5g
B2334	Benzylchlorodimethylsilane		5g
B1483	Benzyl 2,2,2-Trichloroacetimidate		25g
B1906	<i>N,O</i> -Bis(<i>tert</i> -butyldimethylsilyl)acetamide		5g
B1688	1,2-Bis(chlorodimethylsilyl)ethane	25g	5g
B1773	1,2-Bis[(dimethylamino)dimethylsilyl]ethane		5g
B1699	1,2-Bis(dimethylsilyl)benzene		5ml
B1315	4-(Bromomethyl)phenylacetic Acid Phenacyl Ester	5g	1g
B1089	2-Boc-thio-4,6-dimethylpyrimidine	25g	5g
B1702	9-Bromo-9-phenylfluorene	25g	5g
B0916	<i>N-tert</i> -Butoxycarbonylimidazole		10g
B0988	2-(<i>tert</i> -Butoxycarbonyloxyimino)-2-phenylacetone nitrile	25g	5g
B1969	1- <i>tert</i> -Butoxycarbonyl-1,2,4-triazole		5g

Keywords : protection, derivatization

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B1436		B0995		B1043		B2697		T1525	
B1223		B1663		B1496		C1591		C1573	
C1574		C1600		C0176		C1400		C0795	
C1339		D2504		D2461		D2469		D1608	
D2334		D2262		D0555		D1612		D2915	

B1436	<i>tert</i> -Butoxydiphenylchlorosilane (stabilized with CaCO ₃)			5ml
B0995	<i>tert</i> -Butyldimethylchlorosilane	100g	25g	5g
B1043	1-(<i>tert</i> -Butyldimethylsilyl)imidazole		5g	1g
B2697	<i>tert</i> -Butyldimethylsilyl <i>N</i> -Phenylbenzimidate			5g
T1525	<i>tert</i> -Butyldimethylsilyl Trifluoromethanesulfonate		25g	5g
B1223	<i>tert</i> -Butyldiphenylchlorosilane	100ml	25ml	5ml
B1663	<i>tert</i> -Butylmethoxyphenylsilyl Bromide			1g
B1496	<i>tert</i> -Butyl 2,2,2-Trichloroacetimidate		25ml	5ml
C1591	Carbonic Acid Benzyl 4-Nitrophenyl Ester			5g
C1573	Carbonic Acid <i>tert</i> -Butyl Phthalimido Ester			5g
C1574	Carbonic Acid <i>tert</i> -Butyl 2,4,5-Trichlorophenyl Ester			5g
C1600	Carbonic Acid Dibenzyl Ester		5g	1g
C0176	Chloroformic Acid Benzyl Ester (30~35% in Toluene)	500ml		25ml
C1400	Chloroformic Acid 4-Nitrophenyl Ester		250g	25g
C0795	2,2,2-Trichloroethyl Chloroformate		250g	25g
C1339	2-(Chloromethoxy)ethyltrimethylsilane (stabilized with Diisopropylethylamine)		25ml	5ml
D2504	2-Chlorophenyldiphenylmethyl Chloride		500g	25g
D2461	Dibenzosuberyl Chloride		25g	5g
D2469	Di- <i>tert</i> -butyldichlorosilane		25g	5g
D1608	1,3-Dichloro-1,1,3,3-tetraisopropylidisiloxane			5g
D2334	1,3-Dichloro-1,1,3,3-tetramethyldisiloxane			10g
D2262	Diethylisopropylsilyl Chloride		5g	1g
D0555	3,4-Dihydro-2 <i>H</i> -pyran	500ml		25ml
D1612	4,4'-Dimethoxytrityl Chloride		25g	5g
D2915	4-(Dimethylamino)-1-(triphenylmethyl)pyridinium Chloride (contains 5% Dichloromethane at maximum)			5g

D0695	D2159	D0835	D1463	C1415
C0683	E0478	E0479	F0197	I0303
E0471	M0071	M0802	M0979	
M0680	M0681	M1006	M1004	M1199
$CH_3O(CH_2)_2OCH_2Cl$				
M0790	M1077	M0441	N0507	N0181

D0695	<i>N,N</i> -Dimethylcarbamoyl Chloride	500g	25g
D2159	Dimethylthiophosphinic Chloride		1g
D0835	2,4-Dinitrofluorobenzene	500g	25g
D1463	2,4-Dinitrophenylsulfenyl Chloride		5g
C1415	Diphenylphosphinic Chloride	25g	10g
C0683	<i>N</i> -Ethoxycarbonylphthalimide	500g	25g
E0478	Ethylenedioxybis(trimethylsilane)		25g
E0479	Ethylenedithiobis(trimethylsilane)		5g
F0197	9-Fluorenylmethyl Chloroformate	25g	5g
I0303	Isopropenyl Methyl Ether	500ml	25ml
E0471	Ethylene Di(thiosylate)	25g	5g
M0071	2-Mesitylenesulfonyl Chloride	500g	25g
M0802	4-Methoxybenzenesulfonyl Chloride	500g	25g
M0979	Methoxycarbonylsulfonyl Chloride	25g	5g
M0680	2-Methoxyethoxymethyl Chloride	500ml	25ml
M0681	(2-Methoxyethoxymethyl)triethylammonium Chloride		5g
M1006	4-Methoxy-2-nitrobenzenesulfonyl Chloride	25g	5g
M1004	4'-Methoxyphenacyl Bromide	25g	5g
M1199	1-Methoxy-1-trimethylsilyloxypropene		1g
M0790	4-Methoxytrityl Chloride	250g	25g
M1077	<i>N</i> -Methyl- <i>N,O</i> -bis(trimethylsilyl)hydroxylamine	5ml	1ml
M0441	4-(Methylthio)phenol	250g	25g
N0507	4-Nitrobenzenesulfonyl Fluoride		1g
N0181	4-Nitrobenzyl Bromide	500g	25g

N0363 	N0516 	D1044 	P1378 	D1547
P1277 		P1281 		T0272
T1485 	T0670 	T1468 	T1689 	
T1588 	T0871 	T0872 	D2390 	
T1410 	T1277 	T1535 	T1573 	T1237
T0512 	C0308 	T1526 	T1071 	

N0363	2-Nitrophenylsulfenyl Chloride	100g	25g
N0516	2-Nitro-5-thiocyanatobenzoic Acid		1g
D1044	Pentachlorophenyl Dichloroacetate		25g
P1378	(Phenylthio)trimethylsilane		5g
D1547	Pyrocarbonic Acid Di-tert-butyl Ester	500g	25g
P1277	Pyrocarbonic Acid Diallyl Ester	5g	1g
P1281	Pyrocarbonic Acid Dibenzyl Ester	25g	5g
T0272	p-Toluenesulfonyl Chloride	500g	25g
T1485	p-Toluenesulfonic Anhydride	25g	5g
T0670	N-Trifluoroacetylimidazole		5g
T1468	Trifluoromethanesulfonic Acid Diethylisopropylsilyl Ester	5g	1g
T1689	Trifluoromethanesulfonic Acid Triethylsilyl Ester	25g	5g
T1588	Trifluoromethanesulfonic Acid Triisopropylsilyl Ester	25g	5g
T0871	Trifluoromethanesulfonic Acid Trimethylsilyl Ester	250g	25g
T0872	Trifluoroethoic Acid S-Ethyl Ester		5ml
D2390	Trimethylene Di(thiosylate)		5g
T1410	1-(2,4,6-Triisopropylbenzenesulfonyl)imidazole	25g	5g
T1277	N-(Trimethylsilyl)morpholine	25ml	5ml
T1535	3-Trimethylsilyl-2-oxazolidinone		5g
T1573	4-Trimethylsilyloxy-3-penten-2-one		25ml
T1237	Triphenylmethanesulfonyl Chloride		10g
T0512	Triphenylmethyl Bromide		25g
C0308	Triphenylmethyl Chloride	500g	25g
T1526	4,4',4''-Tris(4,5-dichlorophthalimido)trityl Bromide		1g
T1071	4,4',4''-Tris(benzoyloxy)trityl Bromide		5g