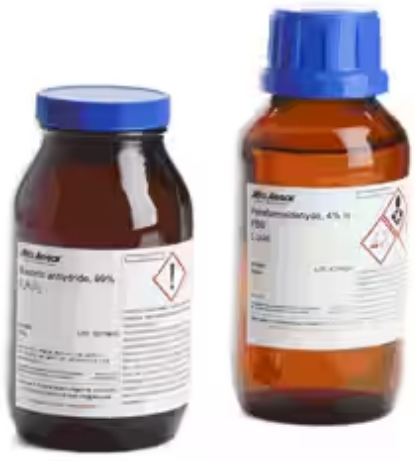
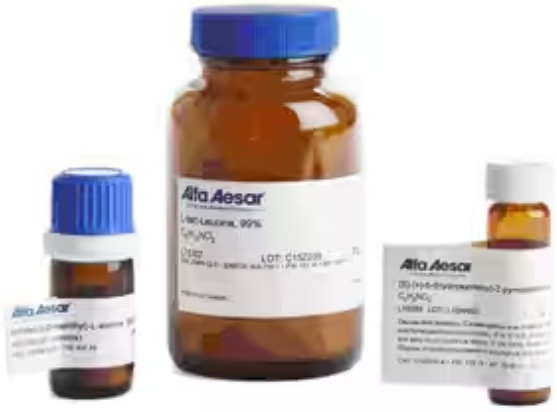
Miscellaneous



This section contains the following types of organic chemicals not listed elsewhere:

Ammonium Salts
Calixarenes
Hydriodides
Hydrobromides
Hydrochlorides
Organic Hydroxides
Peroxy Compounds
Spiro Compounds
Terpenes /n

Ammonium Salts



Ammonium salts are ionic compounds with the formula $(R)4N^{+}A^{-}$, where R is hydrogen, alkyl or aryl groups and A is an anion. When R is alkyl or aryl then they are referred to as quaternary ammonium salts. The quaternary ammonium cations are permanently charged, independent of the pH of their solution. Most of the ammonium salts are soluble in water and strongly dissociated. Ammonium salts are used as cleansing agents, food additives, diuretic, surfactants, antistatic agents and disinfectants. They are known to have antimicrobial activity. Osmotic pressure in cells is stabilized by quaternary ammonium salts.

Quaternary ammonium compounds containing long alkyl chains, like benzalkonium chloride, cetylpyridinium chloride, dofanium chloride, benzethonium chloride, methylbenzethonium chloride, cetalkonium chloride and didecyldimethylammonium chloride have activity against microbes, fungi, amoeba, and certain viruses. Since these quaternary ammonium compounds are deactivated by anionic detergents, they should not be used in hard water. They are routinely used as sanitizing agents. One of the day-to-day applications of quaternary ammonium salts in organic synthesis is their popular application as phase transfer catalysts (PTCs) in catalyzing the reaction between ionic and organic reactants. Chlormequat chloride functions as a plant growth regulator through inhibition of the production of gibberellins.

B24128	(1-Butyl)triethylammonium bromide, 97%
L12144	(1-Decyl)trimethylammonium bromide, 98%
A10761	(1-Dodecyl)trimethylammonium bromide, 99%
A17924	(1-Dodecyl)trimethylammonium chloride, 97%
A15235	(1-Hexadecyl)trimethylammonium bromide, 98%
41861	(1-Hexadecyl)trimethylammonium chloride, 96%
L08594	(1-Hexyl)trimethylammonium bromide, 98%
L10294	(1-Tetradecyl)trimethylammonium bromide, 98%
L12484	(1-Tetradecyl)trimethylammonium chloride, 98%
A15630	(2-Chloroethyl)trimethylammonium chloride, 98% (dry wt.)
H27609	(2-Hydroxyethyl)trimethylammonium dimethyl phosphate, 95%
L13523	2-(Methacryloyloxy)ethyltrimethylammonium chloride, 72% aq. soln., stab. with 150-200 ppm 4-methoxyphenol
L06848	Acetyl beta-methylcholine bromide, 98%
A11694	Acetylcholine iodide, 98%

A17247	Aliquat® 336 TG
B22698	Allyltriethylammonium bromide, 98+%
B20785	Aluminum trifluoromethanesulfonate, 99%
A10699	Ammonium formate, 97%
17658	Ammonium L-(+)-tartrate, 98%
H32592	Ammonium O,O'-dimethyldithiophosphate, 95%
A10263	Ammonium oxalate monohydrate, 98%
H26577	Ammonium trifluoroacetate, 98%
41339	Benzalkonium chloride
B20760	Benzalkonium chloride, 50% w/w aq. soln.
32377	Benzyldimethylhexadecylammonium chloride, 95%
H60196	Benzyldimethyl-n-dodecylammonium chloride, 98%
A14291	Benzyltriethylammonium bromide, 98+%
A13268	Benzyltriethylammonium chloride, 99%
H51872	Benzyltriethylammonium dichloroiodate, 97%
B24847	Benzyltriethylammonium tetrafluoroborate, 98+%
A16840	Benzyltrimethylammonium bromide, 98+%
A16759	Benzyltrimethylammonium chloride, 97%
B22892	Benzyltrimethylammonium dichloroiodate, 95%

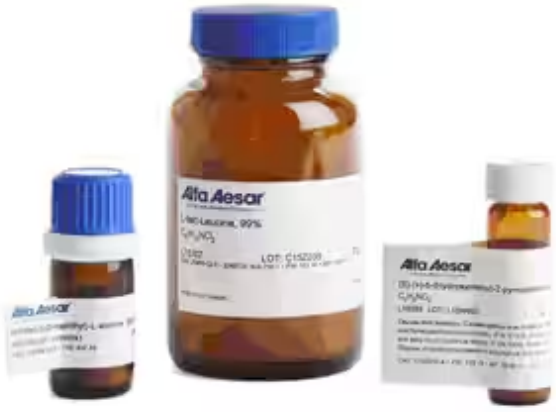
41717	Benzyltrimethylammonium hydroxide, 20% w/w aq. soln.
47189	Benzyltrimethylammonium hydroxide, 40% w/w aq. soln.
B23520	Benzyltrimethylammonium iodide, 98%
B24470	Benzyltrimethylammonium tribromide, 98%
B23941	Benzyltri-n-butylammonium bromide, 99%
A10345	Benzyltri-n-butylammonium chloride, 98%
L00675	Benzyltri-n-propylammonium chloride, 96%
B24397	Betaine, anhydrous, 98%
H61550	Bis(triphenylphosphine)iminium trifluoroacetate, 98%
L14339	Bis(triphenylphosphoranylidene)ammonium chloride, 97% (dry wt.), water <3%
L06674	Carbachol, 98+%
B24172	(Chloromethylene)dimethylammonium chloride, 96%
A15828	Choline chloride, 98+%
B24443	Choline hydroxide, 46% w/w aq. soln.
L00860	Choline iodide, 98%
H33741	[(Cyclohexylammonium)methyl]trifluoroborate internal salt, 95%
A19886	D-3-Bromocamphor-8-sulfonic acid ammonium salt, 98%

A12300	(Dichloromethylene)dimethylammonium chloride, 95%
A10458	Diethylammonium diethyldithiocarbamate, 98%
L14718	Diisobutylaluminum hydride, 1M solution in toluene
B20251	Di-n-butylammonium tetrafluoroborate, 98%
B24832	Di-n-decyl dimethylammonium bromide, 80% aq. gel
B22839	(Di-n-dodecyl)dimethylammonium bromide, 98+%
L12930	Domiphen bromide, 97%
L07482	Ethidium bromide, 95%
A15286	Ethylenediaminetetraacetic acid diammonium salt hydrate
41725	Hexane-1,6-bis(tri-n-butylammonium) dihydroxide, 20% w/w aq. soln.
A17618	L-Carnitine, 98+%
L18019	Methyltri-n-butylammonium chloride, Aliquat 175 (75% aq. soln.)
H62570	N,1-Di-Boc-L-histidine dicyclohexylammonium salt, 98%
H66414	N-[3-(Trimethoxysilyl)propyl]-N,N,N-trimethylammonium chloride, 50% in methanol
H63042	Nalpha-Benzyloxycarbonyl-O-tert-butyl-D-tyrosine dicyclohexylammonium salt, 98%
H62785	Nalpha,Nepsilon-Di-Boc-L-lysine dicyclohexylammonium salt, 98%
H66564	N-Benzyloxycarbonyl-L-glutamic acid 1-tert-butyl ester dicyclohexylammonium salt, 95%

H66733	N-Benzyloxycarbonyl-L-isoleucine dicyclohexylammonium salt, 98%
H65851	N-Benzyloxycarbonyl-N-methyl-DL-alanine dicyclohexylammonium salt, 95%
H66787	N-Benzyloxycarbonyl-O-tert-butyl-L-threonine dicyclohexylammonium salt, 95%
H62838	N-Boc-2-cyclopentyl-L-glycine dicyclohexylammonium salt, 95%
H61796	N-Boc-D-norvaline dicyclohexylammonium salt, 98%
H66537	N-Boc-L-allo-threonine dicyclohexylammonium salt, 98%
H61621	N-Boc-L-aspartic acid 4-tert-butyl ester dicyclohexylammonium salt, 95%
H33553	[(N-Cyclohexyl-N-methylammonium)methyl]trifluoroborate internal salt, 95%
A17781	N-Methylanilinium trifluoroacetate, 99%
H62018	N,N'-Di-Boc-L-histidine dicyclohexylammonium salt, 95%
A15146	(N,N-Dimethyl)methyleneammonium iodide, 97%
H60665	n-Octadecyltrimethylammonium chloride, 95%
H27439	N,S-Dimethylisothiouronium hydriodide, 98%
B22851	Phenyltrimethylammonium chloride, 98+%
A14402	Phenyltrimethylammonium iodide, 99%
A15326	Phenyltrimethylammonium tribromide, 97%
A12385	Phosphoenolpyruvic acid mono(cyclohexylammonium) salt, 98%
A15708	Pyridinium p-toluenesulfonate, 98+%

H62283	(R)-2,3-Di-(Boc-amino)propionic acid dicyclohexylammonium salt, 95%
H62817	(R)-4-Benzyloxycarbonylamino-2-(Boc-amino)butyric acid dicyclohexylammonium salt, 98%
H62772	(S)-2-Benzyloxycarbonylamino-4-(Boc-amino)butyric acid dicyclohexylammonium salt, 98%
H30661	(S)-(-)-3-Dimethylaminopyrrolidine dihydrochloride, 97%
A12622	S-Butyrylthiocholine iodide, 98%
A13835	Tetraethylammonium bromide, 98%
A15215	Tetraethylammonium chloride hydrate, 98%
30818	Tetraethylammonium chloride monohydrate, 98+%
B23173	Tetraethylammonium fluoride hydrate, 97%
16256	Tetraethylammonium hexafluorophosphate, 98%
L03968	Tetraethylammonium hydroxide, 20% aq. soln.
43023	Tetraethylammonium hydroxide, 35% w/w aq. soln., Reagent Grade
A11783	Tetraethylammonium iodide, 98+%
41791	Tetraethylammonium nitrate, 35% w/w aq. soln.
A10211	Tetraethylammonium tetrafluoroborate, 99%

Hydrochlorides



Hydrochlorides are salts resulting from the reaction of hydrochloric acid with an organic base (e.g. amines). Often heating is required to get the free base dissolved and the hydrochloride salt separates on cooling. Hence they find use in purification and separation of desired products in the synthesis and industrial scale up processes. Hydrochlorides are also used in crystal engineering in the preparation of co-crystals. Pyridine hydrochloride (C5H5N. HCl) is an example for hydrochloride, which is obtained by reacting pyridine (C5H5N) with hydrochloric acid (HCl). Pyridine hydrochloride is employed for the deprotection of phenol ethers.

A16254	1,10-Phenanthroline monohydrochloride monohydrate, 99%
H53377	1-(1-Adamantyl)ethylamine hydrochloride, 98%
A11289	1,1-Diphenylhydrazine hydrochloride, 98%
H28196	1-(2,3,4-Trimethoxybenzyl)piperazine dihydrochloride, 97%
L18697	1-(2,3-Dichlorophenyl)piperazine monohydrochloride, 98+%
L19110	1-(2,5-Dimethoxybenzyl)piperazine hydrochloride, 97%
H64862	1-[2-Amino-1-(4-methoxyphenyl)ethyl]cyclohexanol hydrochloride, 98%
H33104	12-Aminododecylphosphonic acid hydrochloride, 95%
B22985	1-(2-Chloroethyl)piperidine hydrochloride, 98%
B20198	1-(2-Chlorophenyl)biguanide hydrochloride, 97%
A17570	1-(2-Chlorophenyl)piperazine monohydrochloride monohydrate, 98%
B24085	1-(2-Pyrimidinyl)piperazine dihydrochloride, 98+%
H52368	1-(2-Thiazolyl)piperazine hydrochloride, 97+%
B20355	1-(3-Chlorophenyl)biguanide hydrochloride, 97%
H59896	1-(3-Chlorophenyl)piperazine hydrochloride, 97%
A14057	1-(3-Chlorophenyl)piperazine monohydrochloride, 97%
A10807	1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride, 98+%
H51686	1-(3-Fluorophenyl)homopiperazine monohydrochloride, 98%

L02164	1-(3-Methoxyphenyl)piperazine dihydrochloride, 97%
A18553	1-(3-Trifluoromethylphenyl)piperazine monohydrochloride, 98%
H63961	1,4-Bis[alpha-(4-chlorophenyl)benzyl]piperazine dihydrochloride, 97%
B20311	1-(4-Chlorophenyl)biguanide hydrochloride, 97%
B25283	1-(4-Chlorophenyl)piperazine dihydrochloride, 95%
L01712	1-(4-Chlorophenyl)piperazine monohydrochloride, 97%
A18312	1,4-Diaminobutane dihydrochloride, 99%
L07330	1-(4-Fluorophenyl)biguanide hydrochloride, 98%
L17097	1-(4-Fluorophenyl)piperazine dihydrochloride, 98%
L02007	1-(4-Methoxyphenyl)piperazine dihydrochloride, 97%
H51750	1-(4-Methylphenyl)homopiperazine monohydrochloride, 98%
H30389	1-Acetyl-4-aminopiperidine hydrochloride, 97%
A12699	1-Adamantanamine hydrochloride, 99%
H27288	1-Amino-1-cyclopropanecarbonitrile hydrochloride, 97%
H27264	1-Amino-1-cyclopropanecarboxylic acid hydrochloride, 97%
B24492	1-Amino-2-naphthol hydrochloride, 97%
B24031	1-Aminocyclohexanecarboxylic acid hydrochloride, 98%
H25819	1-Benzhydryl-3-azetidinol hydrochloride, 95%

	A13542	1-Benzyl-3-ethoxycarbonyl-4-piperidone hydrochloride hydrate, 97%, ca 10% water
	H30169	1-Benzyl-3-methylpiperazine hydrochloride, 98+%
	A12849	1-Benzyl-3-piperidone hydrochloride hydrate
	H27411	1-Benzyl-4-cyano-4-phenylpiperidine hydrochloride, 99%
	H33830	1-Chloromethyl-1H-1,2,4-triazole hydrochloride, 96%
	H66242	1-(Cyclopropylcarbonyl)piperazine hydrochloride, 97%
	H66870	1-(Cyclopropylmethyl)piperazine dihydrochloride, 97%
	H52436	1-Cyclopropylpiperazine dihydrochloride, 97%
	L12314	1-Dodecylamine hydrochloride, 97%
	H60475	1H-1,2,4-Triazole-1-carboxamidine hydrochloride, 98%
	H60631	1H-Pyrazole-1-carboxamidine hydrochloride, 99%
	H30607	1H-Pyrazole-1-(N-methylcarboxamidine) hydrochloride, 96%
	H55536	1-Methylpiperazine dihydrochloride, 98%
	H33083	1-Methylpiperidine-4-carboxylic acid hydrochloride, 96%

44088	1-Naphthylamine hydrochloride, 98%
41378	1-Octadecylamine hydrochloride
B22604	1-(o-Tolyl)piperazine dihydrochloride, 98%
A16995	1-Phenylpiperazine hydrochloride, 99%
L05432	1-(p-Tolyl)piperazine dihydrochloride, 97%
H34178	(1S,2R)-1-Phenyl-2-(1-pyrrolidinyl)-1-propanol hydrochloride 97+%
B24161	2-(1-Naphthylmethyl)-2-imidazoline hydrochloride, 99%
H51030	2-(1-Piperazinyl)quinoline hydrochloride
H32717	2,2,2-Trifluoro-1-(3-pyridyl)ethylamine hydrochloride, 95%
H32987	2,2,2-Trifluoro-1-(4-fluorophenyl)ethylamine hydrochloride, 95%
A14904	2,2,2-Trifluoroethylamine hydrochloride, 98%
A10613	2,2,2-Trimethylacetamidine hydrochloride, 98%
B20345	2-(2,4-Dichlorophenoxy)aniline hydrochloride, 98%
H29051	2,2-Difluorocyclopropylamine hydrochloride, 97%
L15615	2,2-Diphenylpropylamine hydrochloride, 98+%
H50259	2-(2-Ethylhexylaminomethyl)pyridine dihydrochloride, 99%
H52088	2-(2-Phenylethyl)-L-proline hydrochloride, 95%
H52130	2-(2-Propynyl)-L-proline hydrochloride, 95%

H60208	2-[3,4-(Methylenedioxy)phenyl]ethylamine hydrochloride, 95%
H26472	2,3-Diamino-6-methoxypyridine dihydrochloride, 96%
A10717	2,3-Dichlorophenylhydrazine hydrochloride, 97%
A16526	2,3-Dimethylphenylhydrazine hydrochloride, 97%
H51681	2-(3-Fluorophenoxy)ethylamine hydrochloride, 98%
L10958	2,4,6-Trimethylphenylhydrazine hydrochloride, 97%
H65434	2,4-Diaminothiazole hydrochloride, 95%
A10943	2,4-Dichlorophenylhydrazine hydrochloride, 98%
A11625	2,4-Difluorophenylhydrazine hydrochloride, 97%
B21009	2,4-Dimethylphenylhydrazine hydrochloride, 95%
H52102	2-(4-Fluorobenzyl)-L-proline hydrochloride, 95%
H31410	2-(4-Fluorophenoxy)ethylamine hydrochloride, 97%
H65601	2-(4-Hydroxyphenyl)-D-glycine methyl ester hydrochloride, 95%
H64894	2-(4-Nitrophenyl)ethylamine hydrochloride, 98+%
B21969	2,5-Diaminohydroquinone dihydrochloride, 97%
L05599	2,5-Diaminopyridine dihydrochloride, 97%
L10359	2,5-Difluorophenylhydrazine hydrochloride, 99%
L04024	2,5-Dimethyl-4-(4-morpholinylmethyl)phenol hydrochloride hydrate, 99%

L12496	2,5-Dimethylphenylhydrazine hydrochloride, 98%
H51958	2-(5-Methyl-2-thienyl)pyrrolidine hydrochloride, 99%
A11968	2,6-Dichlorophenylhydrazine hydrochloride, 98+%
L11568	2,7-Diaminofluorene dihydrochloride, 97%
A17140	2-Adamantanamine hydrochloride, 98+%
A10942	2-Amidinopyridine hydrochloride, 97%
B25419	2-Amino-1,3-propanediol hydrochloride, 98%
A12205	2-Amino-3'-nitroacetophenone hydrochloride, 98%
H59878	2-Amino-4,5-dimethylthiazole hydrochloride, 97%
B21788	2'-Amino-4',5'-methylenedioxyacetophenone hydrochloride, 98%
L04292	2-Amino-4'-bromoacetophenone hydrochloride, 98%
H52888	2-Amino-4-carboxybenzeneboronic acid hydrochloride, 96%
H52695	2-Amino-4-cyanobenzeneboronic acid hydrochloride, 97%
L05844	2-Amino-4-imino-2-thiazoline hydrochloride, 99%

B25400	Cyclobutylamine hydrochloride, 97%
A17308	Cyclohexylamine hydrochloride, 98+%
L13353	Cyclopropanemethylamine hydrochloride, 98%
B20185	Cyclopropylcarboxamidine hydrochloride, 97%
L01564	D-(-)-2-Phenylglycine ethyl ester hydrochloride, 98+%
L18735	D-(-)-2-Phenylglycine methyl ester hydrochloride, 96%
H63535	D-Alaninamide hydrochloride, 98%
H62791	D-Alanine ethyl ester hydrochloride, 95%
H62472	D-Alanine methyl ester hydrochloride, 98%
H59898	D-Alanine tert-butyl ester hydrochloride, 98%
H62695	D-Arginine methyl ester dihydrochloride, 98%
H63197	D-Aspartic acid dimethyl ester hydrochloride, 98%
H52085	D-beta-Homoproline hydrochloride, 95%
H57789	D-beta-Proline ethyl ester hydrochloride, 97%
H27107	D-Cysteine hydrochloride monohydrate, 99%
H52427	D-erythro-Sphingosine hydrochloride, 97%
L07462	D-Galactosamine hydrochloride, 98%
H62132	D-Glutamic acid dimethyl ester hydrochloride, 98%

H65096	D-Histidine methyl ester dihydrochloride, 95%
A13637	Diethylamine hydrochloride, 99%
A13681	Diethyl aminomalonate hydrochloride, 98%
B20028	Dimethyl 4-aminothiophene-2,3-dicarboxylate hydrochloride, 97%
L10515	Dimethyl adipimidate dihydrochloride, 97%
A12133	Dimethylamine hydrochloride, 98+%
L18475	Dimethylaminoacetyl chloride hydrochloride, tech. 85%
B25729	Dimethyl iminodiacetate hydrochloride, 98%
43244	Dimethylsuberimidate dihydrochloride
A10136	Diphenhydramine hydrochloride, 99%
L09485	DL-2,3-Diaminopropionic acid monohydrochloride, 99%
A15408	DL-2,4-Diaminobutyric acid dihydrochloride, 99%
L11020	DL-Alanine ethyl ester hydrochloride, 99%
A12599	DL-Alanine methyl ester hydrochloride, 98+%
B25190	DL-alpha-Amino-2-thiopheneacetic acid methyl ester hydrochloride, 98%
H57113	DL-beta-Proline ethyl ester hydrochloride, 97%
H57365	DL-beta-Proline hydrochloride, 95%
A16589	DL-Carnitine hydrochloride, 98+%

H25779	DL-Cysteine hydrochloride, 98+%
H65916	D-Leucine ethyl ester hydrochloride, 98%
H65456	D-Leucine methyl ester hydrochloride, 98%
L09077	DL-Homocysteine thiolactone hydrochloride, 99%
A11066	DL-Lysine monohydrochloride, 99%
H25781	DL-Methionine ethyl ester hydrochloride, 98+%
A12758	DL-Phenylalanine methyl ester hydrochloride, 98%
A13904	DL-Serine methyl ester hydrochloride, 98+%
H66659	DL-Tryptophan methyl ester hydrochloride, 97%
L17906	DL-Valine ethyl ester hydrochloride, 99%
L06526	DL-Valine methyl ester hydrochloride, 99%
L07710	D-Lysine monohydrochloride, 98%
H65461	D-Methionine ethyl ester hydrochloride, 95%
H63422	D-Methionine methyl ester hydrochloride, 98%

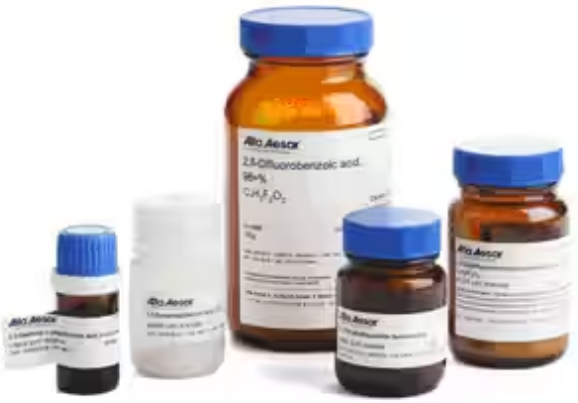
H51957	N-Cyclopropyl-2-(4-piperidinyloxy)acetamide hydrochloride, 96%
H65647	Ndelta-Benzyloxycarbonyl-L-ornithine methyl ester hydrochloride, 98%
H65199	Nepsilon-Benzyloxycarbonyl-L-lysinamide hydrochloride, 95%
H63714	Nepsilon-Benzyloxycarbonyl-L-lysine benzyl ester hydrochloride, 98%
L09744	N(epsilon)-Benzyloxycarbonyl-L-lysine methyl ester hydrochloride, 95%
H63727	Nepsilon-Boc-L-lysine methyl ester hydrochloride, 98%
H62993	Nepsilon-Boc-L-lysine tert-butyl ester hydrochloride, 95%
H51120	N-Ethyl-3-pyridinemethylamine hydrochloride, 96%
A15317	Nicotinoyl chloride hydrochloride, 96%
H51109	N-Methyl-1-(2-thienyl)ethylamine hydrochloride
H28719	N-Methyl-1-naphthalenemethylamine hydrochloride, 98%
L02202	N-Methylhydroxylamine hydrochloride, 98%
H65979	N-Methyl-L-isoleucine hydrochloride, 95%
H65254	N-Methyl-L-valine methyl ester hydrochloride, 95%
B22317	N,N'-Diethylhydrazine dihydrochloride, tech. 90%
H51139	N,N-Dimethyl-1,4-butanediamine dihydrochloride, 97%
H51679	N,N-Dimethyl-2-(1-piperazinyl)nicotinamide hydrochloride, 96%
H33455	N,N-Dimethyl-3-piperidinemethylamine dihydrochloride, 95%

A18892	N,N-Dimethylglycine hydrochloride, 99%
L00403	N,N-Dimethyl-m-phenylenediamine dihydrochloride, 99%
A10343	N,N-Dimethyl-p-phenylenediamine dihydrochloride, 98%
A12107	N,N,N',N'-Tetramethyl-p-phenylenediamine dihydrochloride, 98+%
H63697	Nomega-(4-Methoxy-2,3,6-trimethylphenylsulfonyl)-L-arginine monohydrate, 95%
H63666	Nomega-Nitro-L-arginine methyl ester hydrochloride, 98%
H64485	Nortropinone hydrochloride, 97%
H64270	N-tert-Butylglycine hydrochloride, 97%
A18368	O-(2,3,4,5,6-Pentafluorobenzyl)hydroxylamine hydrochloride, 99+%
H63312	O-(4-Methoxybenzyl)hydroxylamine hydrochloride, 98%
A17393	O-Benzylhydroxylamine hydrochloride, 99%
H65980	O-Benzyl-L-threonine hydrochloride, 95%
H63156	O-Benzyl-L-tyrosine benzyl ester hydrochloride, 95%
H63908	O-Benzyl-L-tyrosine methyl ester hydrochloride, 98%
H62257	Octenidine dihydrochloride, 98%
A17175	o-Dianisidine dihydrochloride, 98%
H52790	O-Ethoxy-L-serine hydrochloride, 97%
H65884	O-Methyl-D-serine hydrochloride, 95%

A14773	O-Methylisourea hydrochloride, 98%
H52562	O-Methyl-L-serine hydrochloride, 97%
H63874	O-tert-Butyl-D-serine methyl ester hydrochloride, 98%
H62126	O-tert-Butyl-L-serine methyl ester hydrochloride, 98%
H65887	O-tert-Butyl-L-serine tert-butyl ester hydrochloride, 97%
H63529	O-tert-Butyl-L-threonine methyl ester hydrochloride, 95%
A18196	o-Tolidine dihydrochloride, 97%
36626	o-Tolidine dihydrochloride, ACS
A15767	o-Tolylhydrazine hydrochloride, 98%
B25412	Papaverine hydrochloride, 99%
A14645	Phenylhydrazine hydrochloride, 99%
H60507	Pioglitazone hydrochloride, 98%
H27101	(±)-Piperazine-2-carboxylic acid dihydrochloride, 98%
A13243	Piperidine hydrochloride, 99%

H52119	trans-4-Cinnamyl-L-proline hydrochloride, 95%
H62522	trans-4-Cyanocyclohexylamine hydrochloride, 97%
H51726	trans-4-Hydroxy-L-proline methyl ester hydrochloride, 98%
H52000	(±)-trans-4-Isopropylpyrrolidine-3-carboxylic acid hydrochloride, 95%
H52090	(±)-trans-4-Phenylpyrrolidine-3-carboxylic acid hydrochloride, 95%
A17318	Triethylamine hydrochloride, 98%
L04718	Trimethylamine hydrochloride, 98%
A14916	Trimethylamine N-oxide dihydrate, 98+%
H51864	Tris(2-carboxyethyl)phosphine hydrochloride, 95%, 0.5M soln. in water
40587	Tris(2-carboxyethyl)phosphine hydrochloride, 98%
A11379	Tris(hydroxymethyl)aminomethane hydrochloride, 99+%
A11030	Tryptamine hydrochloride, 98+%
A12220	Tyramine hydrochloride, 98%

Terpenes

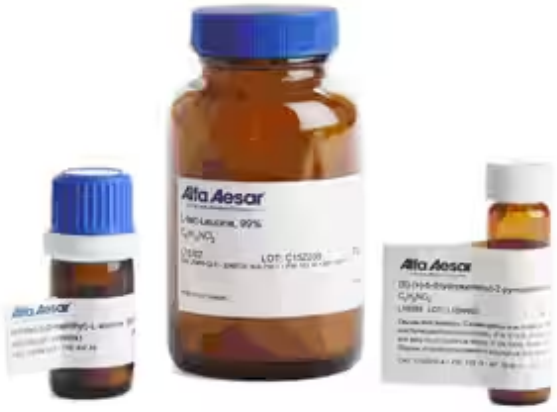


Terpenes are hydrocarbons built up from isoprene (C_5H_8) units, having the formula $(C_5H_8)_n$, where n is the number of linked isoprene units. Terpenes are usually grouped according to the number of isoprene units, monoterpenes-two (camphor, menthol), sesquiterpenes-three (nerolidol, farnesol), diterpenes-four (phytol, Vitamin A1), triterpenes-six (squalene, ursolic acid) and tetraterpenes-eight units. The carotenoid pigments are tetraterpenes. When terpenes undergo oxidation, the resulting compounds are terpenoids or isoprenoids.

Many terpenes are used in cosmetics. Terpenes are used as air-fresheners or quick aroma-release agents and cleansers. They find widespread use as a flavour additive in food production. They also have promising antibacterial, antioxidant, antitumor, and phytotoxic bioactivities. Turpentine, composed mainly of monoterpenes, specifically alpha-pinene and beta-pinene, and used in organic synthesis to produce camphor, linalool, alpha-terpineol, and geraniol, is commonly used in the treatment of acute and chronic bronchitis. As a solvent, it is used for oil-based paints, and varnishes. The anti-inflammatory activity of terpenes has been recently reviewed as a function of its structural modifications (Review: de Santana Souza, M. T.; Almeida, J. R. G. d. S.; de Souza Araujo, A. A.; Duarte, M. C.; Gelain, D. P.; Moreira, J. C. F.; dos Santos, M. R. V.; Quintans-Júnior, L. J. Structure-Activity Relationship of Terpenes with Anti-Inflammatory Profile - A Systematic Review. *Basic & Clinical Pharmacology & Toxicology* **2014,** *115,* 244-256).

H60106	beta-Carotene, 99%
A19016	Citronellol, 95%
A16237	Vitamin A acetate in gelatin, 500,000 I.U./g

Calixarenes

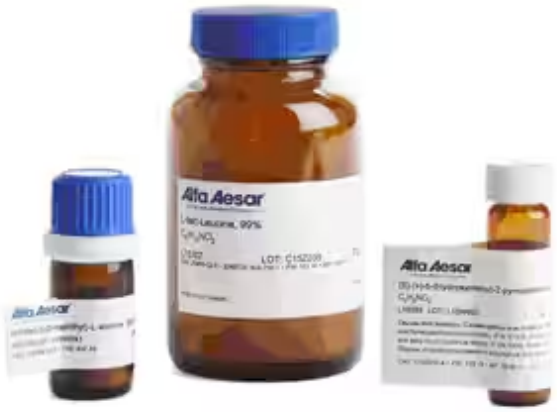


Calixarenes are macrocyclic oligomers, formed from phenol-formaldehyde condensation. They are sparingly soluble and high melting solids. They have chemical and thermal stability. The number . [n]□ enclosed in brackets, which separates □calix□ and □arene□, indicates the number of aromatic ring units in the macrocycle, for example, calix[4]arene, calix[6]arene and calix[8]arene.

They act as host molecules as they possess cavities. The shape of calixarenes is like a cup or a bucket with a defined upper and lower rim along with a central annulus. Both the upper and lower rims can be tailor made to provide highly preorganized structures. They have the ability to bind to a variety of ions and find applications as ion sensors. The aromatic rings of calixarenes rotate and produce different conformations. These conformations play a critical role in various properties such as the selectivity of the calixarene to complex with a specific species. Calixarenes are known as synthetic molecular baskets and have numerous applications as surfactants, chemoreceptors, catalysis, host-guest chemistry, enzyme mimetics, ion-sensitive electrodes, non-linear optics, drug recognition, drug delivery, and nanotechnology.

B21515	4-tert-Butylcalix[4]arene, 99%
B21443	4-tert-Butylcalix[8]arene, 96%
B21320	Calix[4]arene, 98%
B21608	Calix[6]arene, 98%
B21666	Calix[8]arene, 97%
A19192	O(1),O(3)-Bis(carboxymethyl)-O(2),O(4)-dimethyl-p-tert-butylcalix[4]arene
A19688	O(1),O(3)-Bis(ethoxycarbonylmethyl)-O(2),O(4)-dimethyl-p-tert-butylcalix[4]arene
A19594	O(1),O(3)-Bis(ethoxycarbonylmethyl)-p-tert-butylcalix[4]arene

Organic Hydroxides



Organic hydroxides include quaternary ammonium hydroxides (R4N+ OH-), quaternary phosphonium hydroxides (R4P+ OH-) and tertiary sulfonium hydroxides (R3S+ OH-). These organic hydroxides may be collectively referred to as onium hydroxides. In both quaternary ammonium hydroxides and quaternary phosphonium hydroxides, there are four alkyl/aryl groups attached to nitrogen or phosphorus atoms. Some of the examples are tetrabutyl-ammonium hydroxide, benzyltriethylammonium hydroxide and n-butyltriphenylammonium hydroxide. In the case of sulfonium hydroxides, there are three groups attached to the sulfur atom.

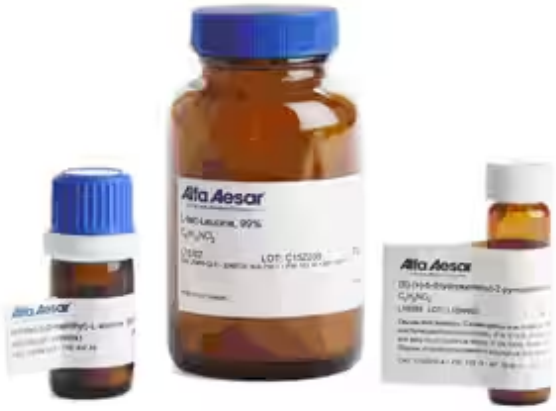
Organic hydroxide compounds, owing to their strong basic nature, are used in phase transfer catalysis of alkylations and deprotonations. Tetrabutylammonium hydroxide, Bu4NOH, reacts with hydrofluoric acid to produce tetrabutylammonium fluoride, Bu4NF, which is a useful reagent for desilylation in organic solvents. Organic hydroxides have found a variety of uses including use as a titrant for acids in organic solvents and as a supporting electrolyte in polarography. They have been used extensively as a developer for photoresists in printed circuit board and microelectronic chip fabrication. They also find use in electronics. Many organic hydroxides find use as precipitation agents.

43284	3-(Trifluoromethyl)phenyltrimethylammonium hydroxide, 5% w/v in methanol
41717	Benzyltrimethylammonium hydroxide, 20% w/w aq. soln.
47189	Benzyltrimethylammonium hydroxide, 40% w/w aq. soln.
A14927	Benzyltrimethylammonium hydroxide, 40% w/w in methanol
B24443	Choline hydroxide, 46% w/w aq. soln.
18862	Copper(II) ethoxide
A16893	Dimethyl sulfoxide-d₆, 99.5% (Isotopic)
A13947	Potassium tert-butoxide, 97%
L15111	Potassium tert-pentyloxide, 25% w/w in toluene
L13083	Sodium ethoxide, 21% w/w in ethanol
L06230	Sodium ethoxide, 96%
L05673	Sodium methoxide, 98%

B21872	Sodium methoxide, ca 30% w/w in methanol
B25002	Sodium phenoxide, 98%
A19942	Sodium tert-butoxide, 97%
L15112	Sodium tert-pentyloxide, 95%
L03968	Tetraethylammonium hydroxide, 20% aq. soln.
16328	Tetraethylammonium hydroxide, 25% w/w in methanol
36560	Tetraethylammonium hydroxide, 35% w/w aq. soln.
44938	Tetramethylammonium hydroxide, 1.0 M aq. soln., ACS
44940	Tetramethylammonium hydroxide, 2.38% w/w aq. soln., Electronic Grade, 99.9999% (metals basis)
L09991	Tetramethylammonium hydroxide, 25% w/w aq. soln.
30833	Tetramethylammonium hydroxide, 25% w/w in methanol
L09658	Tetramethylammonium hydroxide pentahydrate, 98%
46315	Tetra-n-butylammonium hydroxide, 1.0M aq. soln.
L08164	Tetra-n-butylammonium hydroxide, 1.0M in methanol
L02809	Tetra-n-butylammonium hydroxide, 40% w/w aq. soln.
A12626	Tetra-n-butylammonium hydroxide, 40% w/w in methanol

	16198	Tetra-n-butylammonium hydroxide, 55% w/w aq. soln.
	41718	Tetra-n-butylphosphonium hydroxide, 40% w/w aq. soln.
	L14328	Tetra-n-propylammonium hydroxide, 1M aq. soln.
	17456	Tetra-n-propylammonium hydroxide, 40% w/w aq. soln.

Hydriodides

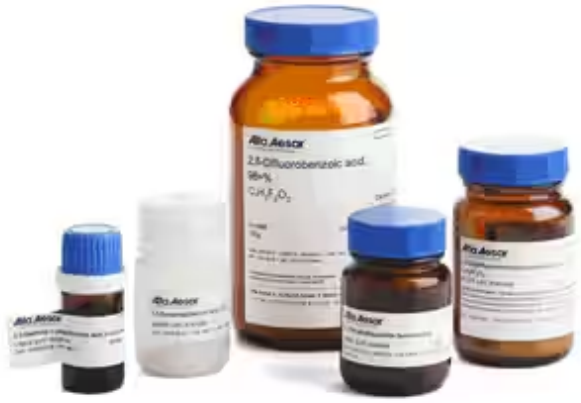


Hydriodide is a salt compound of hydriodic acid with a base. Hydriodide compounds are acid addition salts. Examples for hydriodides are: Hydriodides of primary amines, such as hexadecylamine hydriodide and cyclohexylamine hydriodide. Hydriodides of secondary amines, such as N-ethylbenzylamine hydriodide and piperidine hydriodide. Hydriodides of tertiary amines, such as N,N-dimethylbenzeneamine hydriodide, and pyridine hydriodide. Examples of quaternary ammonium iodides, such as N-benzyl-trimethylammonium iodide; and N-dodecyltriethyl ammonium iodide.

Hydriodides find many applications in organic synthesis especially in the purification and isolation of pure compounds. For example, hydriodides like aniline hydroiodide, pyridine hydroiodide are selective demethylation reagents of aryl ethers. Pyridine hydroiodide reacts with styrene to produce a quaternary pyridinium compound containing a primary alcoholic group. Pyridine hydrohalides have been reported to effectively activate the reaction of tralkyl phosphites with various C=X electrophiles: aldehydes, ketones, ketophosphonates, aldimines, ketimines, isocyanates, isothiocyanates, and activated olefin. Particularly high activity is shown by pyridine hydroiodide. This reaction is a convenient method of synthesis of hydroxyphosphonates, aminophosphonates, carbamoylphosphonates, carbamoylthiophosphonates, and methylenebisphosphonates (Kolodyazhnaya, A. O., Russian J. General Chem. 2010, 80(4), 709-722.

H27731	3,4-Dihydro-1H-isoquinoline-2-carboxamidine hydriodide, 98%
A11571	4-Chlorobenzamidine hydriodide, 96%
H33215	Morpholine-4-carboxamidine hydroiodide, 97%
H51786	S-Methyl pyridine-2-carbothioimidate hydriodide, 96%
H51776	S-Methyl pyridine-3-carbothioimidate hydriodide, 96%
H51774	S-Methyl pyridine-4-carbothioimidate hydriodide, 96%

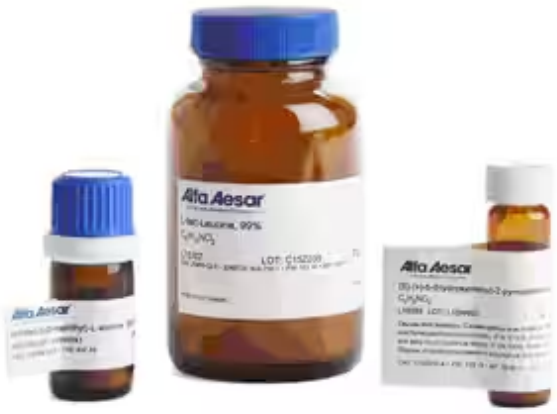
Peroxy Compounds



The characteristic structure of peroxy compounds is the relatively weak oxygen-oxygen linkage. The weak -O-O- bond is easily split into reactive radicals via homolytic cleavage. As the active oxygen content and oxygen balance increase, the sensitivity and instability of peroxy compounds increase. Organic peroxy compounds fall in two categories, namely, peroxy acids and organic peroxides. Peroxy acids include peracetic acid, trifluoroperacetic acid, and m-chloroperbenzoic acid. Examples of organic peroxides are t-butylhydroperoxide, and dibenzoyl peroxide. Peroxy compounds find use in mouthwash, disinfectants, bleaching, rubber, and detection devices. They have the ability to kill bacteria, viruses and fungi on hard surfaces. br>
Synthesis of peroxy compounds generally involves hydrogen peroxide. In polymerization and addition reactions the peroxy compounds are used as a source of free radicals. Dibenzoyl peroxide is a well-known radical initiator employed in every laboratory. Polymers like polyethylene (plastics), polycaprolactam (Nylon) and several other polymers are manufactured with peroxy compounds. Organic peroxides, through radical polymerization, play a key role in the manufacture of acrylic and methacrylic polymers. Peracids find extensive application of industrial importance, including Prilezhaev reaction and Bayer-Villiger oxidation. Manufacture of acetone and phenol is made through cumene hydroperoxide as an intermediate. Peroxides also find application in drugs wherever formation of radicals are required.

L15068	3-Carboxy-PROXYL, free radical, 97+%
L00286	3-Chloroperoxybenzoic acid, 48-55%, cont. ca 10% 3-chlorobenzoic acid, balance water
H52446	3-(tert-Butoxycarboxy)benzeneboronic acid, 97%
L06866	Cumyl hydroperoxide, tech. 80%
L13174	Dibenzoyl peroxide, 97% (dry wt.), wet with 25% water
H60442	Dicumyl peroxide, 98%
L14310	Dilauroyl peroxide, 97%
A15310	Potassium peroxydisulfate, 97%
A13926	tert-Butyl hydroperoxide, 70% aq. soln.
A17373	tert-Butyl peroxybenzoate, 98%
L13940	Urea hydrogen peroxide adduct, 97%

Hydrobromides



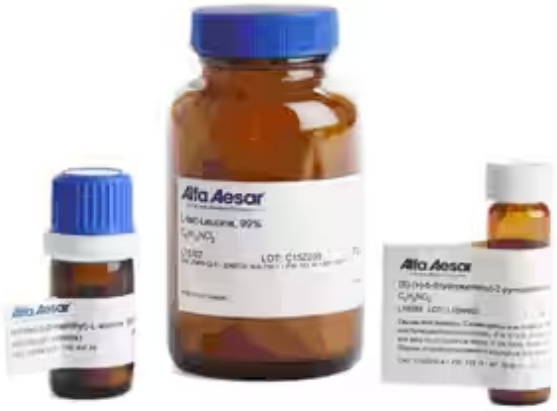
Hydrobromides are salts, formally resulting from the reaction of hydrobromic acid with an organic base. Hydrobromides are usually more soluble in aqueous solutions than the corresponding bases. In a typical purification process, crude base is treated with hydrobromic acid to form a salt, and subjecting the salt formed to a re-crystallisation step to obtain a pure product. Alkyl anisoles can be demethylated by refluxing with pyridine hydrobromide. Pyridine hydrohalides have been reported to effectively activate the reaction of tralkyl phosphites with various C=X electrophiles: aldehydes, ketones, ketophosphonates, aldimines, ketimines, isocyanates, isothiocyanates, and activated olefins. This reaction is a convenient method of synthesis of hydroxyphosphonates, aminophosphonates, carbamoylphosphonates, carbamoylthio phosphonates, and methylenebisphosphonates.

These compounds find applications in crystallization, purification, isolation and in synthesis of chemical compounds. Stability of compounds could also be improved if they are made as a hydrobromide addition salts. Examples of medicinal compounds as hydrobromide include: dextromethorphan hydrobromide, citalopram hydrobromide, hyoscine hydrobromide, fenoterol hydrobromide, homatropine hydrobromide, eletriptan hydrobromide, galantamine hydrobromide and darifenacin hydrobromide.

A18560	1,5,9-Triazacyclotridecane trihydrobromide, 98%
L20170	(1S,2S)-2,5-Diazabicyclo[2.2.1]heptane dihydrobromide, 98%
B24931	2-(1-Methylhydrazino)-2-imidazoline hydrobromide, 97%
L05440	2-Amino-4-chlorobenzothiazole hydrobromide, 97%
A19542	2-Amino-4-phenylthiazole hydrobromide monohydrate, 99%
H31514	2-Amino-5-bromothiazole hydrobromide, 97%
A17625	2-Bromoethylamine hydrobromide, 98+%
L19525	2-Bromomethyl-3-hydroxypyridine hydrobromide, 98+%
L00177	2-Pyrrolidinone hydrotribromide, 97%
B23254	3-Bromopropylamine hydrobromide, 98%
H66833	3-Bromopyrrolidine hydrobromide, 96%
H32285	4-(Bromoacetyl)pyridine hydrobromide, 98%
H57691	4-Oxo-L-proline hydrobromide, 90+%
A14487	5-Amino-4-bromo-3-methyl-1H-pyrazole hydrobromide, 98%

A18439	Cyclohexylamine hydrobromide, 98%
A19462	Hydrazine monohydrobromide, 98%
H36298	Julolidine hydrobromide, 97%
H63234	L-Cystine dimethyl ester dihydrochloride, 98%
A19985	Morpholine-4-carboxamidine hydrobromide, 98%
H27615	N-Phenyl-1-naphthylamine hydrobromide, 97%
A19314	Pyridine hydrobromide, 98%
A15684	Pyridine hydrobromide perbromide, tech. 90%
L14232	S-(2-Aminoethyl)isothiourea dihydrobromide, 98%
A17926	Triethylamine hydrobromide, 98%
L14290	Triphenylphosphine hydrobromide, 97%

Spiro Compounds



Spiro compounds are bi- or polycyclic organic compounds with the rings connected through one common atom. The atom connecting the rings is called a spiro atom. Carbon is the most common spiro atom; however spiro compounds are known to contain nitrogen, phosphorus and boron or metals such as copper, zinc or beryllium. They generally exhibit axial chirality.

B21664	1,7-Dioxaspiro[5.5]undecane, 98%
B24770	1-Adamantaneacetonitrile, 97%
B23831	1-Adamantanemethanol, 98%
A10209	1-Adamantanol, 99%
H55889	1-Adamantyl methyl ketone, 99%
H58958	1-Mercaptoadamantane, 98%
H57452	1-Oxa-6-azaspiro[3.4]octane oxalate, 96%
H59544	(1R,2S)-(-)-2,N-Epoxy-10,2-camphorsultam, 96%
A10697	2-Adamantanol, 98%
A14275	2-Adamantanone, 98%
H57854	2-Oxa-5-azaspiro[3.4]octane oxalate, 96%
H57634	2-Oxa-6-azaspiro[3.3]heptane hemioxalate, 96%
H63578	2-Oxa-6-azaspiro[3.3]heptane oxalate, 97%
H57579	2-Oxa-6-azaspiro[3.4]octane, 95%
H57834	2-Oxa-7-azaspiro[3.5]nonane hemioxalate, 97%
H64902	3,3-Pentamethylene glutarimide, 98+%
B24864	3,3-Tetramethyleneglutarimide, 98%
H37845	3,5-Dimethyladamantane-1-methanol, 97%
L12958	3,9-Bis(1,1-dimethyl-2-hydroxyethyl)-2,4,8,10-tetraoxaspiro[5.5]undecane, 97%

H60580	3-Bromoadamantane-1-carboxylic acid, 97%
H27645	3-Hydroxyadamantane-1-acetic acid, 97%
H33174	4-(1,3-Dioxo-2-azaspiro[4.4]non-2-yl)benzenesulfonyl chloride, 95%
H61917	4-Hydroxymethyl-2,6,7-trioxa-1-phosphabicyclo[2.2.2]octane 1-oxide, 98%
B22170	5,5',6,6'-Tetrahydroxy-3,3,3',3'-tetramethyl-1,1'-spirobisindane, 97%
B21028	5-Chloro-2-adamantanone, 90+%
H55950	5-Hydroxy-2-adamantone, 98%
H56994	5-Norbornen-2-ol, mixture of endo and exo, 98+%
H56907	5-Norbornen-2-yl acetate, mixture of endo and exo, 98%
B24973	5-Norbornene-2-carboxaldehyde, endo + exo, 95%
L15571	6,6-Dimethyl-5,7-dioxaspiro[2.5]octane-4,8-dione, 99%
H34134	6-Boc-1-oxa-6-azaspiro[2.5]octane, 97%
H57040	6-Boc-1-oxa-6-azaspiro[3.3]heptane, 96%
H57658	6-Oxa-1-azaspiro[3.3]heptane hemioxalate, 95%
H57148	7-Boc-2-oxa-7-azaspiro[3.5]nonane, 95%
B22612	7-Oxabicyclo[2.2.1]heptane, 98%
H64525	9,9'-Spirobifluorene-2-boronic acid, 98%
H64133	9,9'-Spirobifluorene, 98%
H60081	Adamantane-1,3-dicarboxylic acid, 98%

	A14352	Adamantane-1-carbonitrile, 97%
	H60853	Bis(2-[di(1-adamantyl)phosphino]ethyl)amine, 97+%
	A12620	(±)-Camphor-10-sulfonic acid, 98%
	A10936	(±)-Camphor, 96%
	A14967	(±)-Camphorquinone, 99%
	H56007	exo-6-Hydroxytropinone, 98+%
	A10982	Methyl-5-norbornene-2,3-dicarboxylic anhydride, mixture of isomers, tech.