

# Chemical Synthesis of Carbohydrates



Carbohydrates are the most extensive and widely used organic compounds in nature. Owing to their structural complexity, it is almost impossible to obtain enough structurally defined carbohydrates from natural sources. Fortunately, there has been great effort invested in establishing chemical and enzymatic approaches for the synthesis of oligosaccharides which provide powerful access to obtaining glycans and glycolconjugates for biological investigations.

As a premier professional supplier of carbohydrates, J&K provides one-stop services with more than 160 related products to meet all your requirements from research to large-scale manufacturing.

Cat. No.	Description	CAS
192001	Acetoxyacetyl chloride, 97%	13831-31-7
279787	Allyl bromide, 98%	106-95-6
220778	2-Aminobenzamide, 98%	88-68-6
270732	2-Aminopyridine, 99%	504-29-0
362344	Ammonium cerium(IV) nitrate, 99.99%	16774-21-3
151258	p-Anisaldehyde dimethyl acetal, 98%	2186-92-7
448780	11-Azido-3,6,9-trioxaundecanol, 97%	86770-67-4
212465	Benzaldehyde dimethyl acetal, 97.5%	1125-88-8
995393	Benzoic anhydride, 98%	93-97-0
954055	Benzoyl chloride, 98%, ACS reagent	98-88-4
941061	Benzyl alcohol, 99%, SuperDry, water≤30 ppm, J&KSeal	100-51-6
153880	Benzylamine, 99%	100-46-9
520318	Benzyl bromide, 97%	100-39-0
994323	Benzyl chloride, 99%, stabilized with 0.25% Propylene oxide	100-44-7
283749	Benzyl chloroformate, 97%, J&KSeal	501-53-1
227784	N-(Benzyloxycarbonyloxy)succinimide, 99%	13139-17-8
454043	(+)-Biotin N-hydroxysuccinimide ester, 99%	35013-72-0
517392	Bis(trichloromethyl) carbonate, 99%	32315-10-9
978377	N,O-Bis(trimethylsilyl)trifluoroacetamide, 98%, J&KSeal	25561-30-2
921076	Boron trifluoride diethyl etherate, 48% BF <sub>3</sub> , J&KSeal	109-63-7
272873	N-Bromosuccinimide, 99%	128-08-5
185272	2,3-Butanedione, 98%	431-03-8
362315	tert-Butyl(chloro)diphenylsilane, 98%	58479-61-1
236144	tert-Butyldimethylchlorosilane, 99%	18162-48-6
218454	tert-Butyldimethylsilyl trifluoromethanesulfonate, 98%	69739-34-0
502667	10-Camphorsulfonic acid, 98%	5872-08-2
485835	(+)-10-Camphorsulfonic acid, 99%	3144-16-9
154661	(-)-10-Camphorsulfonic acid, 99%	35963-20-3
180331	N,N'-Carbonyldiimidazole, 98%	530-62-1
922482	Cesium acetate, 99%	3396-11-0
232068	Chloroacetyl chloride, 98%	79-04-9
102492	2-Chloro-1-methylpyridinium iodide, 97%	14338-32-0
920765	Chlorotrimethylsilane, 1.0 M in THF, J&KSeal	75-77-4
938854	Chlorotrimethylsilane, 99%, 1.0 M in CH <sub>2</sub> Cl <sub>2</sub> , J&KSeal	75-77-4
208060	Copper(II) trifluoromethanesulfonate, 98%	34946-82-2
293854	Cyclohexene, 99%	110-83-8

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129882	1,4-Diazabicyclo[2.2.2]octane, 97%	280-57-9
901411	1,8-Diazabicyclo[5.4.0]undec-7-ene, 1 M in ethyl acetate, J&KSeal	6674-22-2
292269	1,8-Diazabicyclo[5.4.0]undec-7-ene, 98%	6674-22-2
479666	Dibenzyl phosphate, 98%	1623-08-1
317468	Di-tert-butyl dicarbonate, 95%	24424-99-5
252225	Di-tert-butyl dicarbonate, 99%	24424-99-5
409051	Di-tert-butylsilyl bis(trifluoromethanesulfonate), 97%	85272-31-7
962434	Dibutyltin dichloride, 97%	683-18-1
480967	2,3-Dichloro-5,6-dicyano-1,4-benzoquinone, 98%	84-58-2
904284	N,N'-Dicyclohexylcarbodiimide, 25% in Pyridine, ca. 1.2mol/L	538-75-0
275928	N,N'-Dicyclohexylcarbodiimide, 99%	538-75-0
168478	Diethylaminosulfur trifluoride, 95%	38078-09-0
247222	N,N-Diisopropylethylamine, 99%	7087-68-5
203402	N,N-Diisopropylethylamine, 99.5%	7087-68-5
101363	2,2-Dimethoxypropane, 98%	77-76-9
164579	5-Dimethylamino-1-naphthalenesulfonyl chloride, 98%	605-65-2
495017	1-(3-Dimethylaminopropyl)-3-ethylcarbodiimide, 97%	1892-57-5
211112	N-(3-Dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride, 99%	25952-53-8
117147	4-Dimethylaminopyridine, 99%	1122-58-3
420738	2,3-Dimethylpyridine, 98%	583-61-9
124811	Diphenyl chloridophosphate, 99%	2524-64-3
356339	Diphenyl phosphate, 99.7%	838-85-7
325632	Diphenylphosphinic chloride, 98%	1499-21-4
110473	Diphenyl sulfone, 99%	127-63-9
152449	Fluorescein isothiocyanate isomer I, 90%	3326-32-7
255493	Fluorescein isothiocyanate isomer I, 95%	3326-32-7
274767	Fluorescein 6-isothiocyanate isomer II, 97%	18861-78-4
957452	Hydrobromic acid, 48 wt.% solution in H <sub>2</sub> O	10035-10-6
117997	N-Hydroxysuccinimide, 98%	6066-82-6
149443	Imidazole, 99%	288-32-4
166753	Imidazole, 99.5%, BioUltra	288-32-4
138123	Iodobenzene diacetate, 98%	3240-34-4
395069	Iodomethane, 99%, stabilized with copper chip	74-88-4
275643	N-Iodosuccinimide, 99%	516-12-1
245974	Levulinic acid, 98%	123-76-2
605107	2,4-Lutidine, 98%	108-47-4
965209	2,5-Lutidine, 98%	589-93-5
291976	2,6-Lutidine, 99%	108-48-5
140198	2,6-Lutidine, 99%, redistillation	108-48-5
290364	3,5-Lutidine, 99%	591-22-0
501212	(Methoxymethyl)trimethylsilane, 98%	14704-14-4
443109	4-Methoxyphenol, 99%	150-76-5

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Cat. No.	Description	CAS
133892	Methyltrichlorosilane, 98.5%	75-79-6
421428	Methyl trifluoroacetate, 99%	431-47-0
221715	Methyl trifluoromethanesulfonate, 96%	333-27-7
229911	Morpholinosulfur trifluoride, 98%	51010-74-3
932505	Oxalyl chloride, 2.0 M in methylene chloride, J&KSeal	79-37-8
949422	Palladium(II) chloride, 5 wt.% in 10 wt.% HCl, J&KSeal	7647-10-1
257707	Palladium(II) chloride, 99.9%, 59.8% Pd	7647-10-1
317552	Palladium hydroxide on carbon, 20% Pd, wetted with ca. 50% H <sub>2</sub> O	12135-22-7
183974	Palladium on carbon, 5% Pd (dry basis), reduced, wetted with 55% H <sub>2</sub> O	7440-05-3
140328	Palladium on carbon, 10% Pd (dry basis), reduced, wetted with 55% H <sub>2</sub> O	7440-05-3
212672	Phenyl sulfoxide, 99%	945-51-7
455129	Phosphorus tribromide, 99%	7789-60-8
406993	Potassium tert-butoxide, 1.8 M solution in THF, J&KSeal	865-47-4
278842	Potassium tert-butoxide, 99%	865-47-4
212583	Potassium carbonate, 99%	584-08-7
381471	Potassium thioacetate, 98%	10387-40-3
174441	Silver trifluoromethanesulfonate, 98%	2923-28-6
988100	Sodium acetate, 99%, anhydrous, for analysis	127-09-3
314162	Sodium cyanoborohydride, 95%	25895-60-7
114895	Sodium hydride, 60% dispersion in mineral oil	7646-69-7
900207	Sodium methoxide, 5.4 M solution in MeOH, J&KSeal	124-41-4
478445	Sodium methoxide, 99%, anhydrous, powder	124-41-4
296463	Sodium triacetoxymethylborohydride, 97%	56553-60-7
931676	Sodium triacetoxymethylborohydride, 97%, particle size: <500 µm	56553-60-7
953566	Succinimidyl 2,2,2-trichloroethyl carbonate, 95%	66065-85-8
955904	Tetrabenzyl pyrophosphate, 99%	990-91-0
444648	Tetrabutylammonium borohydride, 95%	33725-74-5
120921	Tetrabutylammonium borohydride, 97.5%	33725-74-5
238357	Tetrabutylammonium bromide, 99%	1643-19-2
421783	Tetrabutylammonium bromide, 99%, for ion-pair chromatography	1643-19-2
995821	Tetrabutylammonium fluoride, 1.0 M solution in THF, containing ca. 5% H <sub>2</sub> O, J&KSeal	429-41-4
915029	Tetrabutylammonium fluoride, 75 wt.% solution in H <sub>2</sub> O	429-41-4
510068	Tetrabutylammonium hydrogen sulfate, 99%, for ion-pair chromatography	32503-27-8
983912	Tetrabutylammonium hydroxide, 1 M solution in MeOH, J&KSeal	2052-49-5
131688	Tetrabutylammonium hydroxide, 40 wt.% solution in H <sub>2</sub> O, J&KSeal	2052-49-5
182482	Tetrakis(triphenylphosphine)palladium(0), 99.8%	14221-01-3
235286	2,2,6,6-Tetramethylpiperidine-1-oxyl free radical, 98%	2564-83-2
380370	Thioacetic acid, 97.5%	507-09-5
342007	4,4'-Thiodiphenol, 99%	2664-63-3
296617	p-Toluenesulfonic acid monohydrate, 99%	6192-52-5
347117	p-Toluoyl chloride, 98%	874-60-2
221208	Trichloroacetonitrile, 98%	545-06-2

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Cat. No.	Description	CAS
230087	2,2,2-Trichloroethyl chloroformate, 99%	17341-93-4
959833	Triethylamine, 99.5%, extra pure	121-44-8
971958	Triethylamine, 99.5%, SuperDry, with molecular sieves, J&KSeal	121-44-8
906066	Triethylsilane, 99%	617-86-7
205858	Trifluoroacetic acid, 99.9%, $\leq 10$ APHA	76-05-1
242768	Trifluoromethanesulfonic acid, 99%	1493-13-6
197653	Trifluoromethanesulfonic acid, 99.5%	1493-13-6
244874	Trifluoromethanesulfonic anhydride, 98%	358-23-6
324930	Trifluoromethanesulfonic anhydride, 99.5%	358-23-6
945349	(Trimethylsilyl)diazomethane, 0.6 M solution in hexane	18107-18-1
914009	(Trimethylsilyl)diazomethane, 2.0 M solution in hexanes, J&KSeal	18107-18-1
178729	2-(Trimethylsilyl)ethoxymethyl chloride, 95%, stabilized with 10 ppm N,N-diisopropylethylamine	76513-69-4
264281	Trimethylsilyl trifluoromethanesulfonate, 99%	27607-77-8
110246	Triphenylphosphine, 99%	603-35-0
171149	Trityl chloride, 99%	76-83-5
923369	Zinc bromide, 99.5%, anhydrous	7699-45-8
103315	Zinc chloride, 0.7 M solution in THF, J&KSeal	7646-85-7
954058	Zinc chloride, 1.9 M solution in 2-MeTHF, J&KSeal	7646-85-7

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