

USP Specification for GC Support

Code	Support	Commercially Available
S1A	Siliceous earth for gas chromatography has been flux-calcined by mixing diatomite with Na <sub>2</sub> CO <sub>3</sub> flux and calcining above 900°. The siliceous earth is acid-washed, then water-washed until neutral, but not base-washed. The siliceous earth may be silanized by treating with an agent such as dimethyldichlorosilane to mask surface silanol groups.	Shimalite-W AW-DMCS Shimalite-W AW Chromosorb-W HP Chromosorb-W AW-DMCS Chromosorb-W AW
S1AB	The siliceous earth as described above is both acid- and base-washed.	Chromosorb-W HP
S1C	A support prepared from crushed firebrick and calcined or burned with a clay binder above 900° with subsequent acid-wash. It may be silanized.	Shimalite AW-DMCS Shimalite AW Chromosorb-P AW-DMCS Chromosorb-P AW
S1D	A support prepared from crushed firebrick and calcined or burned with a clay binder above 900°, not acid washed. It may be silanized.	Shimalite NAW Chromosorb-P NAW
SINS	The siliceous earth is untreated.	Shimalite-W NAW Chromosorb-W NAW
S2	Styrene-divinylbenzene copolymer having a nominal surface area of less than 50 m <sup>2</sup> per g and an average pore diameter of 0.3 to 0.4 µm.	Sunpak-H Chromosorb-101
S3	Copolymer of ethylvinylbenzene and divinylbenzene having a nominal surface area of 500 to 600 m <sup>2</sup> per g and an average pore diameter of 0.0075 µm.	Sunpak-A Porapak-Q
S4	Styrene-divinylbenzene copolymer with aromatic –O and –N groups, having a nominal surface area of 400 to 600 m <sup>2</sup> per g and an average pore diameter of 0.0076 µm.	Porapak-R
S5	40- to 60-mesh, high-molecular weight tetrafluorethylene polymer.	Shimalite-F Chromosorb-T
S6	Styrene-divinylbenzene copolymer having a nominal surface area of 250 to 350 m <sup>2</sup> per g and an average pore diameter of 0.0091 µm.	Porapak-P Chromosorb-102
S8	Copolymer of 4-vinyl-pyridine and styrene-divinylbenzene.	Porapak-S
S9	A porous polymer based on 2,6-diphenyl-p-phenylene oxide.	Tenax-TA

USP Specification for GC Stationary Phase

Code	Support	Commercially Available
G1	Dimethylpolysiloxane oil.	ULBON HR-1 Silicone OV-101 Silicone DC-200
G2	Dimethylpolysiloxane gum.	ULBON HR-1 Silicone OV-1 Silicone SE-30
G3	50% Phenyl-50% methylpolysiloxane.	ULBON HR-17 Silicone OV-17
G4	Diethylene glycol succinate polyester.	DEGS
G6	Trifluoropropylmethylpolysiloxane.	Silicone OV-210 Silicone DC QF-1
G7	50% 3-Cyanopropyl-50% phenylmethylsilicone.	Silicone OV-225
G11	Bis(2-ethylhexyl)sebacate polyester.	Octoil-S (DOS)
G13	Sorbitol.	Sorbitol
G14	Polyethylene glycol (av. mol. wt. of 950 to 1050).	PEG-1000 Carbowax-1000
G15	Polyethylene glycol (av. mol. wt. of 3000 to 3700)	PEG-4000 Carbowax-4000
G16	Polyethylene glycol compound (av. Mol. wwt. About 15,000). A high molecular weight compound of polyethylene glycol with a diepoxide linker. Available commercially as Polyethylene Glycol Compound 20M, or as Carbowax 20M, from suppliers of chromatographic reagents.	ULBON HR-20M PEG-20M Carbowax-20M
G17	75% Phenyl-25% methylpolysiloxane.	Silicone OV-25
G18	Polyalkylene glycol.	Ucon LB-550X
G19	25% Phenyl-25% cyanopropyl-50% methylsilicone.	Silicone OV-225
G20	Polyethylene glycol (av. Mol. wt. of 380 to 420).	PEG-400 Carbowax-400
G21	Neopentyl glycol Succinate.	Neopentylglycol succinate (NGS)
G22	Bis(2-ethylhexyl) phthalate.	Diocetyl phthalate (DOP)
G23	Polyethylene glycol adipate.	Ethyleneglycol adipate (EGA)
G24	Diisodecyl phthalate.	Diisodecyl phthalate (DIDP)

G25	Polyethylene glycol compound TPA. A high molecular weight compound of a polyethylene glycol and a diepoxide that is esterified with terephthalic acid. Available commercially as Carbowax 20M-TPA from suppliers of chromatographic reagents.	PEG-20M TPA Carbowax-20M TPA
G27	5% Phenyl-95% methylpolysiloxane.	ULBON HR-52 Silicone SE-52 Silicone SE-54
G28	25% Phenyl-75% methylpolysiloxane.	Silicone DC-550
G29	3,3'-thiodipropionitrile.	3,3'-thiodipropionitrile (TDPN)
G30	Tetraethylene glycol dimethyl ether.	Tetraethyleneglycol dimethyl ether (BMEE)
G31	Nonylphenoxypoly(ethyleneoxy)ethanol (av. Ethyleneoxy chain length is 30); Nonoxynol 30.	Igepal CO-880
G32	20% Phenylmethyl-80% dimethylpolysiloxane.	Silicone OV-7
G34	Diethylene glycol succinate polyester stabilized with phosphoric acid.	DEGS+H <sub>3</sub> PO <sub>4</sub>
G35	A high molecular weight compound of a polyethylene glycol and a diepoxide that is esterified with nitroterephthalic acid.	FON FFAP
G36	1% vinyl-5% phenylmethylpolysiloxane.	ULBON HR-52 Silicone SE-52 Silicone SE-54
G39	Polyethylene glycol (av. Mol. wt. about 1500).	PEG-1500 Carbowax-1500
G40	Ethylene glycol adipate.	Ethyleneglycol adipate (EGA)
G41	Phenylmethyldimethylsilicone (10% phenyl-substituted).	Silicone OV-3
G42	35% phenyl-65% dimethylpolysiloxane (percentages refer to molar substitution).	Silicone OV-11
G44	2% low molecular weight petrolatum hydrocarbon grease	Apiezon-L
G45	Divinylbenzene-ethylene glycol-dimethylacrylate.	Porapak-N
G46	14% cyanopropylphenyl-86% methylpolysiloxane.	ULBON HR-1701