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Siliceous Earth, Chromatographic

—For gas chromatography, use a specially prepared grade meeting the following general description: Purified siliceous earth of suitable mesh size that has been acid- and/or base-washed. It may or may not be silanized.

For column partition chromatography, it is essential that the material be free from interfering substances. If such interferences are known or thought to be present, purify the material as follows: Place a pledget of glass wool in the base of a chromatographic column having a diameter of 100 mm or larger, and add [Purified Siliceous Earth](#) (NF monograph) to a height equal to 5 times the diameter of the column. Add a volume of hydrochloric acid equivalent to one-third the volume of siliceous earth, and allow the acid to percolate into the column. Wash the column with methanol, using small volumes at first to rinse the walls of the column, and continue washing with methanol until the last washing is neutral to moistened litmus paper. Extrude the washed column into shallow dishes, heat on a steam bath to remove the excess methanol, and dry at 105° until the material is powdery and free from traces of methanol. Store the dried material in well-closed containers.

[NOTE—A suitable grade is “Chromosorb W-AW.”]

[NOTE—Suitable silanized grades for gas chromatography are “Gas Chrom Q,” and “Chromosorb W (AW- DMCS-treated).”]

[NOTE—A suitable grade for column chromatography is acid-washed “Celite 545,” available from Sigma-Aldrich, www.sigma-aldrich.com.]

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
SILICEOUS EARTH, CHROMATOGRAPHIC	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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