Product Information

TMSH - Trimethylsulfonium Hydroxide, 0.2 M in Methanol

P/N: 370215

Available units: 10 x 1 mL, 20 x 1 mL (other packing units on request)

Physical data:
M = 94.06 g/mol

Application:
TMSH is particularly suitable for the methylation of phenols, which are detected even in small amounts. Furthermore, free fatty acids, chlorophenoxycarboxylic acids and their derivatives and salts can be methylated. The corresponding fatty acid methyl esters are obtained from lipids and triglycerides through transesterification. A big advantage when using TMSH is the easy sample preparation (see section Methylation). At an injector temperature of at least 250 °C, the excess reagent decomposes into methanol and dimethyl sulfide, so that separate removal is not necessary.

Literature:
W. Butte, *J. Chromatogr.* **261** (1983) 142
E. Schulte, K. Weber, *Fat Sci. Technol.* **91** (1989) 181
K. D. Müller et al., *Chromatographia* **30** (1990) 245
H. Färber et al., *Vom Wasser* **76** (1991) 13

Methylation:

Of butter fat:
100 mg butter are dissolved in 5 mL of a suitable solvent (e.g. tert-butyl methyl ether). Add 50 µL of TMSH to 100 µL of sample solution and inject. The reaction usually takes place immediately at room temperature; brief heating of the sample (10 minutes at 100 °C) is only necessary in exceptional cases.

Of phenols (e.g. pentachlorophenol, PCP):
Add 10 µL of reagent to 1 mL of a solution of 100 mg/L PCP and inject directly into the GC.

GC Analysis:
Fatty acid methyl ester on the FS special column: 25 m x 0.25 mm ID FS-FFAP-CB-FAME (Art. No. 22528325)
Phenols on the FS capillary column: 50 m x 0.25 mm ID FS-SE-54-CB-0.25 (item no. 225051).

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