Product Information

May 2025

MBDS-TFA - N-tert.-Butyl-dimethylsilyl-N-methyl-trifluoroacetamide

P/N: 370550

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

Physical Data:
M = 241,33 g/mol
Bp = 172-175 °C
d20/4 = 1.036 g/cm³

Application:
MBDS-TFA is probably the most important tert-butyl-dimethyl-silylating agent. It is very reactive and reaction mixtures can be injected directly into the GC, minimizing sample workup. Oftentimes, MBDS-TFA is diluted with DMF or acetonitrile for reactions. It can be used for the derivatization of alcohols, thiols, amines, amides, carboxylic acids and enolizable carbonyl groups. Even many inorganic acids such as sulfuric and phosphoric acid can be converted into their TBDMS derivatives and analyzed.

Literature:
J. Kutschinski, Ph.D. Thesis, University of California, *Dis. Abstr. Int.* **835** (1975) 4838
T. P. Mawhinney, *J. Chromatogr.* **257** (1983) 37

Silylation:
To 1-10 mg of sample, add 100 µL of MBDS-TFA and 100 µL of acetonitrile and let stand for 20 minutes at room temperature.

GC Analysis:
The analysis of the resulting derivatives from the various substance classes is in most cases carried out on fused silica capillary columns with non-polar phases such as OV-1 and SE-30, both 100 % methylsiloxanes.