

PRODUCT DATA SHEET

Volatile Acid Mixture (qualitative)

Catalog No: 1075
Solvent: DI Water
Storage: 4-8°C
Concentration: various
Quantity: 100ml

GC Conditions:

Column: Nukol 30m x 0.53mm

Carrier Gas: helium

Make-up Gas: helium

Split Ratio: 10:1

Oven Initial: 100°C

Oven Final: 200°C

Detector: FID, 230 °C

Linear Velocity: 17cm/sec

Flow Rate: 40ml/min

Vent Flow: 70ml/min

Program Rate: 8°C/min

Hold Time: 2.5 min

Injector: 230°C

Components: Formic acid
Acetic acid
Propionic acid
Isobutyric acid
N-butyric acid
Isovaleric acid
N-valeric acid
Isocaproic acid
N-caproic acid
Heptanoic acid

Application Notes:

This mixture contains ten volatile fatty acids and is ideal for their identification by gas chromatography, mass spectrometry, and high performance liquid chromatography and is prepared from high purity stock materials. Knowledge of the fatty acid content of bacteria, for example, can be of great benefit in understanding microbials and can be of great nutritional importance in animals and humans.^{1,2,3} This is a qualitative mixture and should not be used for quantitative purposes.

Selected References:

1. M. Or-Rashid, N. Odongo and B. McBride, "Fatty acid composition of ruminal bacteria and protozoa, with emphasis on conjugated linoleic acid, vaccenic acid, and odd-chain and branched-chain fatty acids" *Journal of Animal Science*, Vol. 85 pp. 1228, 2007
2. Y. Zhang, S. White, and C. Rock "Inhibiting Bacterial Fatty Acid Synthesis" *The Journal of Biological Chemistry*, Vol. 281(26) pp. 17541, 2006
3. N. Rozès et al. "A rapid method for the determination of bacterial fatty acid composition" *Applied Microbiology*, Vol. 3(17) pp. 126, 1993

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