



## Product Information

### Ammonium formate

Product Number **F 2004**

Store at Room Temperature

#### Product Description

Molecular Formula:  $\text{CH}_5 \bullet \text{NO}_2$

Molecular Weight: 63.06

CAS Number: 540-69-2

Melting Point: 116 °C<sup>1</sup>

Density: 1.27 g/cc<sup>1</sup>

Synonyms: formic acid ammonium salt

Ammonium formate is a salt that is widely used in such research applications as chromatography and electrophoresis. It is prepared from formic acid and ammonia gas.<sup>2</sup>

In capillary electrochromatography, ammonium formate has been used in the separation of non-steroidal anti-inflammatory drugs and of oligosaccharide mixtures.<sup>3,4</sup> HPLC and HPLC-MS methods have utilized ammonium formate in the analysis of a variety of substrates, including phosphatidylserines, triacylglycerols and triacylglycerol oxidation products, and oligogalacturonic acids.<sup>5,6,7</sup> Ammonium formate has been utilized in protein crystallization.<sup>8</sup>

#### Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

#### Preparation Instructions

This product is soluble in water (1000 mg/ml), yielding a clear, colorless solution.

#### Storage/Stability

This product is hygroscopic. It is advised to keep containers well closed.

#### References

1. The Merck Index, 12th ed., Entry# 554.
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3. Desiderio, C., and Fanali, S., Capillary electrochromatography and capillary electrochromatography-electrospray mass spectrometry for the separation of non-steroidal anti-inflammatory drugs. *J. Chromatogr. A*, **895(1-2)**, 123-132 (2000).
4. Que, A. H., and Novotny, M. V., Separation of neutral saccharide mixtures with capillary electrochromatography using hydrophilic monolithic columns. *Anal. Chem.*, **74(20)**, 5184-5191 (2002).
5. Larsen, A., et al., Separation and identification of phosphatidylserine molecular species using reversed-phase high-performance liquid chromatography with evaporative light scattering and mass spectrometric detection. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.*, **774(1)**, 115-120 (2002).
6. Byrdwell, W. C, and Neff, W. E., Dual parallel electrospray ionization and atmospheric pressure chemical ionization mass spectrometry (MS), MS/MS and MS/MS/MS for the analysis of triacylglycerols and triacylglycerol oxidation products. *Rapid Commun. Mass Spectrom.*, **16(4)**, 300-319 (2002).
7. Stoll, T., et al., High-performance liquid chromatographic separation and on-line mass spectrometric detection of saturated and unsaturated oligogalacturonic acids. *Carbohydr. Res.*, **337(24)**, 2481-2486 (2002).
8. Brunner, N. A., et al., Crystallization and preliminary X-ray diffraction analysis of the NAD-dependent non-phosphorylating GAPDH of the hyperthermophilic archaeon *Thermoproteus tenax*. *Acta Crystallogr. D Biol. Crystallogr.*, **56(Pt 1)**, 89-91 (2000).

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