



**SIGMA-ALDRICH**

3050 Spruce Street  
Saint Louis, Missouri 63103 USA  
Telephone 800-325-5832 • (314) 771-5765  
Fax (314) 286-7828  
email: techserv@sial.com  
sigma-aldrich.com

## Product Information

### Ammonium carbonate

Product Number **A9516**  
Store at Room Temperature

#### Product Description

CAS Number: 506-87-6  
Synonym: Hartshorn

Ammonium carbonate is a mixture of ammonium bicarbonate (formula weight 79.06, Product No. A6141) and ammonium carbamate (formula weight 78.07). It is used in the washing and defatting of wools, the manufacture of rubber products, in fire extinguishers, and the separation of cacao constituents.<sup>1</sup>

A high-throughput parallel liquid chromatography/ultraviolet/mass spectrometry (LC/UV/MS) technique for compound screening that incorporates ammonium carbonate has been published.<sup>2</sup> Ammonium carbonate has been used in the isolation of cell surface proteins from *Candida albicans*.<sup>3</sup> The use of ammonium carbonate in the comparative peptide analysis of equine, bovine, and canine cytochrome c by capillary electrophoresis/mass spectrometry has been described.

The preparation of glycoconjugates via Kochetkov aminations in saturated aqueous ammonium carbonate has been reported.<sup>5</sup>

#### Precautions and Disclaimer

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

#### Preparation Instructions

This product is soluble in water (200 mg/ml), yielding a clear, colorless solution.

#### References

1. The Merck Index, 12th ed., Entry# 534.
2. Zhao, Y., et al., High-throughput logP measurement using parallel liquid chromatography/ultraviolet/mass spectrometry and sample-pooling. *Rapid Commun. Mass Spectrom.*, **16(16)**, 1548-1555 (2002).
3. Vedyappan, G., et al., Cell surface proteins of *Candida albicans*: preparation of extracts and improved detection of proteins. *Electrophoresis*, **21(5)**, 956-961 (2000).
4. Takada, Y., et al., Comparison of peptide analysis results for horse, bovine and dog cytochrome c using capillary electrophoresis/mass spectrometry with untreated capillary column and basic buffer condition. *Rapid Commun. Mass Spectrom.*, **8(9)**, 695-697 (1994).
5. Vetter, D., and Gallop, M. A., Strategies for the synthesis and screening of glycoconjugates. 1. A library of glycosylamines. *Bioconjug. Chem.*, **6(3)**, 316-318 (1995).

GCY/RXR 5/06

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.