Silver nitrate
ACS Reagent

Product Number 20,913-9
Store at Room Temperature
Exact replacement for Product Number S 0139

Product Description
Molecular Formula: AgNO₃
Molecular Weight: 169.9
CAS Number: 7761-88-8
Melting Point: 212 °C

This product is designated as ACS Reagent grade, and meets the specifications of the American Chemical Society (ACS) for reagent chemicals.

Silver nitrate occurs naturally as the mineral ore acanthite. Silver nitrate is used in such applications as photography, the manufacture of mirrors, silver plating, the production of sympathetic (invisible) and indelible inks, and the coloring of porcelain.¹

Silver nitrate is commonly used to stain protein gels for identification of proteins (Product Code PROT-SIL1 and PROT-SIL2), as it binds to selective amino acid residues under weakly acidic or neutral pH conditions, notably to lysines.²⁻⁴,⁶⁻⁷ Silver nitrate is also utilized in the staining of nucleic acids and of glycoconjugates in gels.⁶⁻⁷ Silver nitrate is used in the chromatography of lipids, by HPLC and by TLC.⁸⁻⁹ In analytical chemistry, silver nitrate is used for the titrimetric determination of chloride content.¹⁰

Silver nitrate is a source of silver ions in biological studies, such as in toxicological investigations on yeast and marine animals.¹¹⁻¹³ It has been used to induce the protein conformational condition of amyloid A amyloidosis in mice.¹⁴

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

Preparation Instructions
This product is soluble in water (1 g/ml), yielding a clear to slightly hazy, colorless to faint yellow solution.

References
1. The Merck Index, 12th ed., Entry# 8661.

