

Technical Data Sheet - Silver Acetate

1	Chemical Name	Silver acetate Anhydrous
2	CAS No	563-63-3
3	Synonym (s)	Silver monoacetate
4	Chemical Formula	(CH3COOAg)
5	Chemical Structure	
		H ₃ C C Ag⁺ O
6	Molecular Weight	166.91gm/mol
7	Description	A white, crystalline, photosensitive solid used as a reagent in laboratory applications and as a source of silver ions
8	Solubility	Silver acetate has a low solubility in water
9	Storage and Handling	Prioritize safety by avoiding contact with skin, eyes, and clothing, and ensuring a well-ventilated, cool, and dry storage area, keeping the container tightly closed and away from light.
10	Uses	1. Organic Synthesis:
		 Silver acetate is a useful reagent in organic synthesis reactions, acting as a catalyst or participating in various



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	 reactions like acetylation, oxidation, and rearrangement reactions. It can be used to prepare sulfenamides from disulfides and secondary amines. It can also be used to convert certain organohalogen compounds into alcohols.
	2. Photographic Industry:
	• Historically, silver acetate was used in the photographic industry to prepare certain photographic emulsions and as a sensitizer for black-and-white photography.
	3. Medical and Healthcare Applications:
	 Antimicrobial Agent: Silver acetate exhibits antimicrobial properties and has been investigated for potential use in medical and healthcare settings. Smoking Cessation: Silver acetate preparations produce an unpleasant, metallic taste when combined with cigarettes, and are used in products like gum, spray, and lozenges to deter smokers. Aversive Conditioning: The use of silver acetate for smoking cessation is based on the principles of aversive conditioning, where an unpleasant taste is paired with smoking to discourage the behavior. Note: A 2012 review found no significant effect of silver acetate on smoking cessation at a six-month endpoint,
	suggesting any effect would be small.



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4. Other Applications:
 Organic Light-Emitting Diodes (OLEDs): Silver acetate can be used as a precursor material in the fabrication of OLEDs, depositing thin films of silver for electrodes or conductive layers. Chemical Analysis: Silver acetate is sometimes used in analytical chemistry as a reagent for specific tests and assays. Printed Electronics: Silver acetate is a well-known precursor used in printed electronics. Novel Preparation of Highly Reflective, Conductive Silvered Polymer Films: Silver acetate is used in a novel preparation of highly reflective, conductive silvered polymer films