

Silver products

Silver truly packs a punch given its unique combination of intrinsic antimicrobial properties, high electric conductivity and ductility. This combined with the commitment to quality and delivery means the Alfa Aesar™ portfolio of silver products have been used extensively in a wide range of applications from medical and pharmaceutical to catalysis, energy and advanced optoelectronics that touch everyday life.

Our specialized silver compounds are available in catalog sizes to bulk quantities. We offer the capability to produce batch sizes up to 200 kg. Bulk packing sizes are customized to meet our customers' requirements.

Key Features:

- Large selection of silver compounds can be manufactured up to a purity of 99.999%.
- Most other silver products are manufactured to 99.9% purity as standard.
- A batch specific certificate of analysis is produced for each product.
- Each silver product batch has:
 - Full metallic impurities typically measured by ICP-MS to ppm
 - Measured silver content
- Specialized silver compounds outside our catalog range can be manufactured on request.

Application highlights:

Chemical

Many silver salts are the chemical precursors for other silver derivatives or metallic silver. Silver carbonate has been employed in the Koenigs-Knorr reaction, a substitution reaction of a glycosyl halide with an alcohol to give a glycoside. Silver salts of carboxylic acids are used to produce organic halides (Hunsdiecker reaction). Silver products also play a critical role in the catalysis of chemical manufacturing processes that provide the building blocks for many day-to-day products.

Pharmaceutical

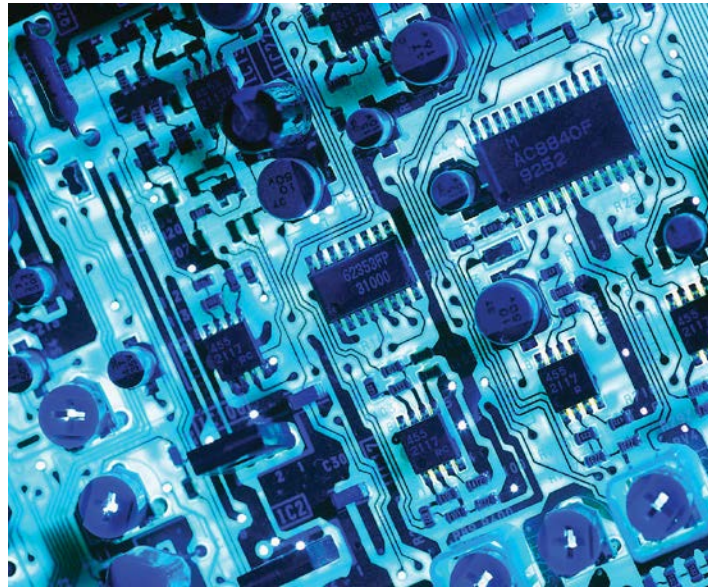
The medicinal properties of silver salts have been used in a range of pharmaceutical compositions. Silver staining is a key application in histology for studying proteins and nucleic acids.

Medical and medical devices

Silver and silver salts have been used extensively throughout history for a variety of medical purposes. Silver in many forms including silver sulfate, silver acetate, silver nitrate and nano silver are used in sterile dressings, wound treatment, surgical instruments and medical device applications.

Water purification and treatment

Whether for filtration or industrial applications, such as pools, silver products are used to prevent bacterial build up and disinfect water.



Energy

From photovoltaics and fuel cells to silver zinc and silver oxide batteries used in small devices and wearables to large scale missile applications, silver products provide high energy density and greener options.

Electronics

Silver products are superior for bondability, solderability and are corrosion resistant. Given their durability and high conductivity silver products are used in electrical contacts and printable electronics for mobile devices, automotive and displays.

Electrodes for potentiometric measurement

For potentiometric measurement, silver/silver chloride electrodes are used as a matter of choice.



The Alfa Aesar portfolio includes an extensive range of specialized silver products, with over 70 products available and the capability to produce large batch sizes. Below is a listing of some of our products. The full product listing is available online.

Pure silver products


VWR Stock No.	Description	Size
AA40511	Silver casting grain, 1.6-6.35mm (0.063-0.25in), 99.9% (metals basis)	25g, 100g, 250g
AA42469	Silver conductive adhesive paste	15g
AA44075	Silver conductive adhesive paste	50g
AA12190	Silver foil, 0.025mm (0.001in) thick, annealed, 99.95% (metals basis)	150x150mm, 150x600mm, 150x1000mm
AA00501	Silver foil, 0.075mm (0.003in) thick, hard, 99.95% (metals basis)	25x150mm, 150x150mm
AA11440	Silver foil, 0.127mm (0.005in) thick, annealed, 99.9% (metals basis)	50x50mm, 100x100mm, 200x200mm
AA42317	Silver foil, 0.1mm (0.004in) thick, annealed, Premion®, 99.998% (metals basis)	50x50mm, 100x100mm, 100x500mm
AA40935	Silver gauze, 50 mesh woven from 0.0764mm (0.003in) dia wire	75x75mm, 150x150mm, 300x300mm
AA40936	Silver gauze, 80 mesh woven from 0.115mm (0.0045in) dia wire, 99.9% (metals basis)	25x25mm, 75x75mm, 150x150mm, 300x300mm
AA39697	Silver needles, 99.999% (metals basis)	10g, 50g
AA00690	Silver powder, -100 mesh, 99.95% (metals basis)	25g, 100g
AA11402	Silver powder, APS 4-7 micron, 99.9% (metals basis)	10, 50g, 250g
AA00678	Silver powder, spherical, -325 mesh, 99.9% (metals basis)	10g, 50g
AA11436	Silver shot, 1-5mm (0.04-0.2in), 99.9% (metals basis)	10g, 50g, 250g
AA12186	Silver shot, 1-5mm (0.04-0.2in), Premion®, 99.99% (metals basis)	10g, 50g, 250g
AA11357	Silver shot, 1-7mm (0.04-0.1in), Premion®, 99.999% (metals basis)	10, 50g, 250g
AA14153	Silver shot, 2-3mm (0.08-0.12in), Premion®, 99.999% (metals basis)	10, 50g, 250g
AA14259	Silver tubing, 6.35mm (0.25in) OD, 4.35mm (0.171in) ID, 99.9% (metals basis)	10cm, 50cm, 4x50cm
AA41454	Silver wire, 0.127mm (0.005in) dia, hard, 99.9% (metals basis)	25m, 100m
AA12187	Silver wire, 0.25mm (0.01in) dia, annealed, 99.9% (metals basis)	25m, 100m, 500m
AA11433	Silver wire, 0.5mm (0.02in) dia, 1/2 hard, 99.9% (metals basis)	2m, 10m, 50m
AA41390	Silver wire, 0.5mm (0.02in) dia, annealed, 99.9% (metals basis)	2m, 10m, 50m
AA11469	Silver wire, 0.5mm (0.02in) dia, Premion®, 99.9985% (metals basis)	1m, 5m, 25m
AA11434	Silver wire, 1.0mm (0.04in) dia, annealed, 99.9% (metals basis)	1m, 5m, 25m
AA11466	Silver wire, 1.0mm (0.04in) dia, Premion®, 99.999% (metals basis)	50cm, 2.5m, 10m
AA11435	Silver wire, 2.0mm (0.08in) dia, annealed, 99.9% (metals basis)	50cm, 2.5m, 10m
AA11465	Silver wire, 2.0mm (0.08in) dia, Premion®, 99.999% (metals basis)	25cm, 100cm, 500cm
AA42860	Silver wool, 99.9+% (metals basis)	1g, 5g, 25g

Full product listing is available online.

Silver compounds

VWR Stock No.	Description	Size
AA11660	Silver acetate, anhydrous, 99%	25g, 100g
AA46784	Silver bis(trifluoromethylsulfonyl)imide	250mg, 1g, 5g
AA11420	Silver carbonate, 99.5% (metals basis)	25g, 100g
AA11421	Silver chloride, 99.9% (metals basis)	25g, 100g, 500g
AA10857	Silver chloride, Premion®, 99.997% (metals basis)	5g, 25g, 100g
AA11538	Silver hexafluoroantimonate, 99%	1g, 5g, 25g
AA11873	Silver hexafluorophosphate, 98%	1g, 5g, 25g
AA11419	Silver iodide, 99.9% (metals basis)	25g, 100g
AA20835	Silver lactate	10g, 50g
AA45509	Silver nanopowder, APS 20-40nm, 99.9% (metals basis)	5g, 25g
AA43087	Silver nitrate, Premion®, 99.995% (metals basis), Ag 63% min	5g, 25g, 100g
AA10858	Silver nitrate, Premion®, 99.9995% (metals basis)	5g, 25g, 100g
AA42209	Silver perchlorate, anhydrous	5g, 25g, 100g
AA41443	Silver sulfate, Premion®, 99.99% (metals basis), Ag 68.9% min	25g, 100g
AA12112	Silver sulfate, Premion®, 99.999% (metals basis)	5g, 25g, 100g
AA11416	Silver sulfide, 99%	5g, 25g, 100g
AA12113	Silver sulfide, Premion®, 99.995% (metals basis)	5g, 25g
AA11539	Silver tetrafluoroborate, 99%	10g, 50g
AA13933	Silver trifluoroacetate, 98%	5g, 25g
AA88722	Silver trifluoromethanesulfonate, 98%	2g, 10g, 50g
AA45496	Silver(I) citrate hydrate	5g, 25g, 100g
AA11609	Silver(I) fluoride, 98%	5g, 25g
AA42577	Silver(I) oxide, 99.99% (metals basis)	1g, 5g, 25g, 4x25g
AA11407	Silver(I) oxide, 99+% (metals basis)	25g, 100g, 500g
AA43268	Silver(I) oxide, Electrical Grade	250g, 1kg
AA11610	Silver(II) fluoride, 98+%	2g, 10g, 50g
AA22695	Silver(II) oxide, 98%	5g, 25g, 100g
AA40187	Silver(II) oxide, 99.9% (metals basis), Ag 86.6% min	5g, 25g, 100g

Full product listing is available online.



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