

thermo scientific



Chemicals

Thermo Scientific silver products

an exceptional precious metal

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Thermo Scientific silver products

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Ag

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 Thermo Scientific™ 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.

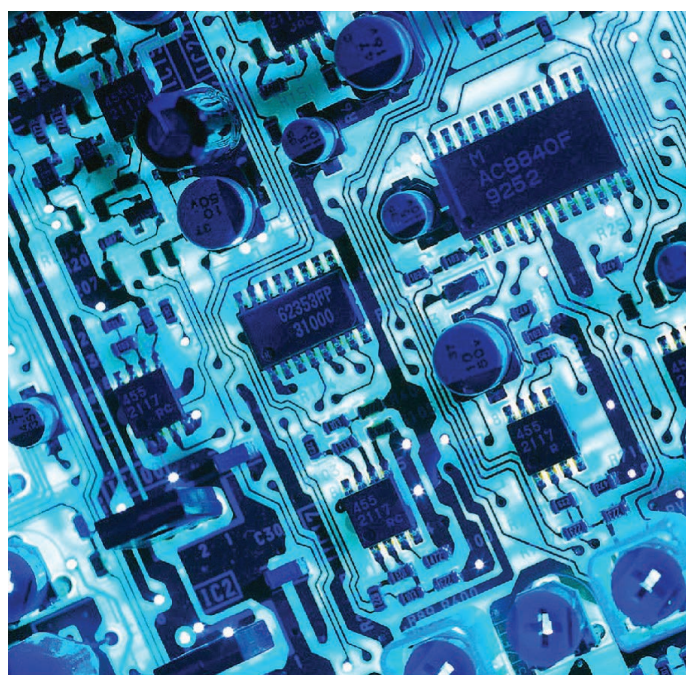
Silver salts of carboxylic acids are used to produce organic halides (Hunsdiecker reaction). Silver products also play a critical role in the catalysis of chemical manufacturing processes that provide the building blocks for many day-to-day products.

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



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.

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The Thermo Scientific 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

IBS No.	Description	Size
11348498	Silver casting grain, 1.6-6.35mm (0.063-0.25in), 99.9% (metals basis)	25 g, 100 g, 250 g
15421817	Silver conductive adhesive paste	15 g
15441957	Silver conductive adhesive paste	50 g
11396578	Silver foil, 0.025mm (0.001in) thick, annealed, 99.95% (metals basis)	150 × 150 mm, 150 × 600 mm
11346577	Silver foil, 0.075mm (0.003in) thick, hard, 99.95% (metals basis)	25 × 150 mm, 150 × 150 mm
11371279	Silver foil, 0.127mm (0.005in) thick, annealed, 99.9% (metals basis)	50 × 50 mm, 100 × 100 mm, 200 × 200 mm
11304378	Silver foil, 0.1mm (0.004in) thick, annealed, Premion™, 99.998% (metals basis)	50 × 50 mm, 100 × 100 mm, 100 × 500 mm
11305247	Silver gauze, 50 mesh woven from 0.0764mm (0.003in) dia wire	75 × 75 mm, 150 × 150mm, 300 × 300 mm
11335247	Silver gauze, 80 mesh woven from 0.115mm (0.0045in) dia wire, 99.9% (metals basis)	25 × 25 mm, 75 × 75 mm, 150 × 150 mm, 300 × 300 mm
11384657	Silver needles, 99.999% (metals basis)	10 g, 50 g
11336627	Silver powder, -100 mesh, 99.95% (metals basis)	25 g, 100 g
11361199	Silver powder, APS 4-7 micron, 99.9% (metals basis)	10, 50 g, 250 g
11366617	Silver powder, spherical, -325 mesh, 99.9% (metals basis)	10 g, 50 g
11306429	Silver shot, 1-5mm (0.04-0.2in), 99.9% (metals basis)	10 g, 50 g, 250 g
11396568	Silver shot, 1-5mm (0.04-0.2in), Premion™, 99.99% (metals basis)	10 g, 50 g, 250 g
11321139	Silver shot, 1-7mm (0.04-0.1in), Premion™, 99.999% (metals basis)	10, 50 g, 250 g
11387747	Silver shot, 2-3mm (0.08-0.12in), Premion™, 99.999% (metals basis)	10, 50 g, 250 g
11307847	Silver tubing, 6.35mm (0.25in) OD, 4.35mm (0.171in) ID, 99.9% (metals basis)	10 cm, 50 cm, 4 × 50 cm
11394178	Silver wire, 0.127mm (0.005in) dia, hard, 99.9% (metals basis)	25 m, 100 m
11336578	Silver wire, 0.25mm (0.01in) dia, annealed, 99.9% (metals basis)	25 m, 100 m, 500 m
11331269	Silver wire, 0.5mm (0.02in) dia, 1/2 hard, 99.9% (metals basis)	2 m, 10 m, 50 m
11394098	Silver wire, 0.5mm (0.02in) dia, annealed, 99.9% (metals basis)	2 m, 10 m, 50 m
11357127	Silver wire, 0.5mm (0.02in) dia, Premion™, 99.9985% (metals basis)	1 m, 5 m, 25 m
11351269	Silver wire, 1.0mm (0.04in) dia, annealed, 99.9% (metals basis)	1 m, 5 m, 25 m
11377117	Silver wire, 1.0mm (0.04in) dia, Premion™, 99.999% (metals basis)	50 cm, 2.5 m, 10 m
11391269	Silver wire, 2.0mm (0.08in) dia, annealed, 99.9% (metals basis)	50 cm, 2.5 m, 10 m
11337117	Silver wire, 2.0mm (0.08in) dia, Premion™, 99.999% (metals basis)	25 cm, 100 cm, 500 cm
11330098	Silver wool, 99.9+% (metals basis)	1 g, 5 g, 25 g

Full product listing is available online.

Silver compounds

IBS No.	Description	Size
11311778	Silver acetate, anhydrous, 99%	25 g, 100 g
15422767	Silver bis(trifluoromethylsulfonyl)imide	250 mg, 1 g, 5 g
11321249	Silver carbonate, 99.5% (metals basis)	25 g, 100 g
11341249	Silver chloride, 99.9% (metals basis)	25 g, 100 g, 500 g
11387007	Silver chloride, Premion™, 99.997% (metals basis)	5 g, 25 g, 100 g
11317237	Silver hexafluoroantimonate, 99%	1 g, 5 g, 25g
11391948	Silver hexafluorophosphate, 98%	1g , 5 g, 25 g
11391239	Silver iodide, 99.9% (metals basis)	25 g, 100 g
11367967	Silver lactate	10 g, 50 g
15496975	Silver nanopowder, APS 20-40nm, 99.9% (metals basis)	5 g, 25 g
11304748	Silver nitrate, Premion™, 99.995% (metals basis), Ag 63% min	5 g, 25 g, 100 g
11327017	Silver nitrate, Premion™, 99.9995% (metals basis)	5 g, 25 g, 100 g
11369857	Silver perchlorate, anhydrous	5 g, 25 g, 100 g
11324168	Silver sulfate, Premion™, 99.99% (metals basis), Ag 68.9% min	25 g, 100 g
11336478	Silver sulfate, Premion™, 99.999% (metals basis)	5 g, 25 g, 100 g
11321239	Silver sulfide, 99%	5 g, 25 g, 100 g
11356478	Silver sulfide, Premion™, 99.995% (metals basis)	5 g, 25 g
11337237	Silver tetrafluoroborate, 99%	10 g, 50 g
11391469	Silver trifluoroacetate, 98%	5 g, 25 g
11379339	Silver trifluoromethanesulfonate, 98%	2 g, 10 g, 50 g
15422317	Silver(I) citrate hydrate	5 g, 25 g, 100 g
11357357	Silver(I) fluoride, 98%	5 g, 25 g
11389188	Silver(I) oxide, 99.99% (metals basis)	1 g, 5 g, 25 g, 4 × 25 g
11361209	Silver(I) oxide, 99+% (metals basis)	25 g, 100 g, 500 g
11319378	Silver(I) oxide, Electrical Grade	250 g, 1 kg
11387357	Silver(II) fluoride, 98+%	2 g, 10 g, 50 g
11348087	Silver(II) oxide, 98%	5 g, 25 g, 100 g
11389317	Silver(II) oxide, 99.9% (metals basis), Ag 86.6% min	5 g, 25 g, 100 g

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