

Currently Preferred Silver Colloid Making Apparatus, Means, and Methods

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To easily and rapidly make unlimited quantities of good quality silver colloid concentrate for ~1/104 per gallon plus water costs you'll need three 9V type MN1604 regular alkaline transistor radio batteries, three battery snap-on lead connectors, 2 insulated alligator clips, 1 "grain-off-wheat" 24 volt 40 mA sub miniature incandescent bulb, a foot of 3/32" heat-shrink insulation tubing, 10" pure silver wire, and a foot of 2-conductor stranded insulated wire for clip-leads. This should cost under \$20 maximum for everything and take about 35 minutes to assemble from scratch. This design is "idiot proof" and simple to use. It makes an odorless, tasteless, colorless fast and powerful antiseptic and one of the most remarkable healing agents known. The entire colloid making process takes about five minutes per 8 OZ batch for ~5 ppm laboratory tested concentration at room temperature.

Use three snap-on connector clips for the batteries. Solder them in series (red to black) to provide 27 volts. Connect a 24V incandescent lamp in series with either (positive or negative) output lead. Solder a red insulated alligator clip to the positive (anode) and a black insulated dip to the negative (cathode) 2-conductor lead wires. Insulation is shrunk over soldered connections using a heat gun or match. Use ONLY pure silver (.999 fine) electrodes. #14 gauge (AWG) is the preferred size. Pure silver is sometimes available at electroplating supply companies, foundries, precious metals dealers, etc. Do NOT use "Sterling" silver (.925 or other) since Sterling contains copper and nickel. Nickel can be toxic. *WARNING!* Sterling is sometimes passed off for electrodes with commercial colloid makers through ignorance or by entrepreneurs who are trying to cut corners and save money. Discard them as hazardous. Use only triple distilled or de-ionized water for injectable colloid. Single distilled water makes transparent colloids but its higher resistance takes up to half an hour to make a 5 ppm. concentration. Tap water is O.K. for most other uses but contains chlorine which may produce some AgCl which is harmless but gives a milky appearance as will any salt (NaCl) which should be avoided.

Bend top ends of silver electrode wires to dip over rim of plastic or glass container. Leave about 4 inches of bare electrodes submersible in the working solution (water). Spacing between electrodes is not critical. There is no on-off switch, so process starts immediately when alligator clips are both attached to submerged wires. Process stops when either or both clips are disconnected. If bulb glows visibly, proceed and let current flow for about five minutes then remove alligator clips, stir, and you're done! If bulb doesn't light or you see only a faint reddish glow, add sea-salt solution (see next paragraph). Observe the smoke-like plumes of pure white ultra fine grain silver against a

dark background as colloid electrolytically sinters off the anode (positive polarity side of battery; red lead) and drifts into solution. Stir thoroughly before using or storing and shake each time before using. Five minutes activation of ~8 OZ of properly conductive water at ~72F gives ~5 ppm (parts per million) strength. Each additional 10 F will double ppm for a given electrolysis time. Yield also depends on water conductivity, surface area of electrodes, amount of current, and time. ~5 minutes makes a stock solution which can be safely used full strength for anything. I occasionally put electrodes in my coffee, fruit and vegetable juice, tap water, and other restaurant drinks to charge them with colloid directly. I even treated a mug of Anchor Steam Beer to see if it worked - it did! But its best to charge water by itself and add this to other foods and liquids as desired or drink it directly. Overdosing with any amount is considered unlikely.

The 24v, 40 mA miniature bulb acts as an ideal ballast, current drain indicator, current limiter, and battery condition check for the apparatus. I found aircraft "grain-of-wheat" lamps (Precision Lamp, Inc. part #10238) in surplus for 50¢ each. You can momentarily short-circuit clip-leads together without harm; the bulb will simply light brightly. Also the visual brightness while operating gives an accurate indication of water conductivity. With distilled or de-ionized (high resistance) water, you should stir in a very minute amount (1 drop, no more) of dissolved sea salt solution, preferably "Celtic Golden Marine" (brand) available at health food stores. Do not use table salt since it contains additives like iodine, aluminum, or silica desiccates, etc. Too much salt (more than one drop) NaCl, can produce unwanted silver chloride and give a "dish water" appearance. Prepare a saturated solution of sea salt beforehand, filter and store in a 1 or 2 OZ brown drugstore eyedropper bottle. Add a little colloid to your bottle to prevent bacterial growth. Stir a drop of this salt solution into 8 Oz of any high-resistance water. The bulb should show just a very dim reddish glow. Salt must be added *before* making colloid. Make and store only in electrically non-conductive containers such as dark brown glass or plastic such as prune juice bottles, hydrogen peroxide containers, Kahlua or Bailey's Irish Cream liquor containers etc., but never in metal (don't peel labels as these shut out more light). Suggested adult dosage of silver colloid can be one to several OZ. stock solution in 6 to 8 OZ of water taken not more than three times in 24 hours. Consult your health professional. 8 OZ glasses of full strength (up to 30 p.p.m.) can be ingested directly with no harmful side effects.

Clean electrode wires after each use to remove dark oxide occurring on anode because the oxygen (produced electrolytically) oxidizes silver. Cut a small piece of 3" thick nylon Scotchbright kitchen scouring pad to polish dried silver, then wipe with paper napkin to make silver ready for next use. A fresh set of 3 alkaline batteries will make hundreds of 8 Oz batches of five minute silver colloid before battery replacement becomes necessary. Periodically check batteries by momentarily short-circuiting tips of alligator clips together to observe whiteness and intensity of light. When bulb appears significantly dimmer or locks yellowish after time, replace all three alkaline batteries. Pry snap connectors off, tape 3 new cells together, and replace snap-on clips. Be very careful not to crush or damage the fragile little in-series lamp.

Colloid concentration and purity is readily checked by viewing back-scatter of a laser beam as it passes through your finished solution (Tyndall/Rayleigh effect). Use a 1 to 5 milliwatt laser diode pointer (630 to 670 nanometer wavelength) that makes a small spot at several feet, not just a "light emitting diode". Look into the beam at about a 15 degree angle. (Point beam through solution so spot hits your chin or lips. *Never look directly at source; this can injure your eyes.*) Laser pointers retail for about \$30. at some computer or parts outlets such as Fry's Electronics. Surprisingly the inexpensive pointer from Radio Shack does not perform satisfactorily for this particular application. Other Radio Shack models (~\$69) will.

Stir your fresh batch with a plastic (non-conductive) fast-food disposable knife and store in a dark brown container. Keep away from light as even room light levels will degrade colloids rapidly by turning solution gray or black just as exposure to light darkens the silver in camera film. Light can also neutralize positive charges on silver ions that help keep particles in suspension. Keep colloids cool but do not refrigerate or let freeze. Always shake container thoroughly before using. After evaluating many different instruments and methods, this paper describes what is easily the best performing, least expensive, simplest and most convenient method for producing good quality silver colloids presently disclosed. It has been fully tested and found to work much better than expensive, dangerous and complex devices. However it does not work with metals such as gold. This standalone appliance works all by itself, and never requires high voltage, ignition coils, transformers, underwater sparking, or "plugging in". It goes in your pocket and will work anywhere. It is essential for sterilizing local drinking water when traveling. (See accompanying suggested uses). It can generate excellent fine-grain silver colloids directly in any fluid containing water ranging from soup to champagne without diluting it. You can make any desired concentration in parts per million by electrolyzing at higher temperatures. There is no heat or waste, and it cannot shock you. There is no need to stir *during* processing however stirring or shaking is essential before storing and each time before using. Filtering is generally unnecessary. Don't add preservatives, minerals, EDTA, proteins, gelatin, coloring (some makers add yellow dye to make it appear "golden" and even honey to slow precipitation), or any other substances. If purchased at market prices commercial colloids could cost up to \$60 for 8 OZ of generally vastly inferior products. Most available colloids on today's market when evaluated prove to be practically worthless. (At a recent health expo, in my opinion out of eight brands tested only two were found to be adequate in quality, suspension, and content. Many contained additives such as EDTA, coloring and gelatin for suspension). This paper describes an easy way for anyone to make his own for only a small fraction of a penny. It seems ridiculous to buy it for high prices. You can now afford to use colloids universally, such as in laundry water for sterilization, as a disinfectant spray, rinse for fruit and vegetables, fungicide, bactericide, plant spray, pet health assurance, and hundreds of other applications. Drinking dilute silver colloid safely kills over 650 pathogens, viruses, microbes, fungi, and parasites within minutes and is said to give you a second intact immune system. Side effects or overdosing are unknown and resistant strains of disease-causing pathogens never develop. Some users ingest lactobacillus acidophilus, bulgaricus, yogurt etc. to replenish friendly intestinal flora.

Warning! Multi-level entrepreneurs hoodwinked by profit motivated promoters generally protest that their colloid is "better, finer-particle size, purer, improved suspension, more golden, made by some expensive top secret proprietary process. etc." or other absurd rationalizations to justify outrageous prices. Just offer to test both at an independent laboratory. This do-it-yourself process makes a perfectly satisfactory colloid with a four year track record of excellent results. Should you wish to make "golden yellow" silver colloid, simply start with 8 Oz of distilled water, add no salt or soda or other ionizing material, and leave electrodes in for 30 minutes. Keep very dark. You'll easily produce a "golden" color. And beware of products describing themselves as "Silver Protein" compounds. These may be toxic and can cause tissue and skin staining (argyria) such as does Silver Nitrate.