



ZULGTAL LABS PRODUCT QUALITY TESTING SUMMARY

A. Concentration (calibrated in parts per million) Tests are done for both ion concentration and suspended particle concentration. Some of spectra graphic analysis is a good way to determine concentration of trace metals particulates in suspension. Ionic silver content of colloids can be adequately determined by initial testing and ultimately weighing the silver content after evaporating out the water

Zulgtal Lab's the originator of the "Ultra-Colloid" Mineral Supplements



B. Average particle size

Any colloid worth its salt for bio-availability must maintain particulate sizes in the single or perhaps double digit NANOMETER (billionth of a meter) range. Zulgtal Labs requires scattered laser light intensity measurements from suspended particles which can be measured within a nanometers of a single Silver atom. (2.8 angstroms or .28 nanometers)

C. Total Additive particulates total surface area(the most significant measurement) can then be determined by multiplying the average particle size/area by the particle count per volume of water they are suspended in. These measurements tell us that a given weight of silver broken into smaller and smaller particles, increases the total surface area with which to expose to a pathogen as in the case of silver or enable active transport in absorption and subsequent biological reactivity on a cellular level. The strength of taste or “taste que” of any colloid is dependant on the total surface area exposed to the tongue. This fact “Taste Que Strength” IS YOUR BEST EVIDENCE OF A SUFFICIENTLY CONCENTRATED PRODUCT. **You can't easily fool the tongue, if the tongue says no taste, the total particulate count surface area is weak, the most common colloidal plague.**

Would you continue buying orange juice that was too weak to taste?

If you properly understood what was just stated then the various confusing types of colloidal concentration measurements typically found on the bottle such as PPM measurements, with are actually a calibrated TDS meter Conductivity in uS/cm or number, or PPM measurements based on the number of mg/liter, **The stated concentration measurement means or promotion will be of little consequence if your tongue says “its there” or it says “not there”.** This fact can be of considerable consequence because the most prominent colloidal producers products are “terribly tasteless”.

D. Agglomeration The next issue of magnitude in significance among colloidal products is “AGGLOMERATION“. which would not likely occur among weakly concentrated products because typically as you place heavier and heavier concentrations of colloidal particles in suspension, they begin sticking together, becoming heavier and finally

falling out of solution found as a dark "agglomeration cloud", at the bottom of your bottle, the most obvious and second "Curse of Colloids". Zulgtal labs colloidal technology enables a process that places **an extreme repulsive charge "Zeta Potential" on each particulate, disabling, in fact reversing their tendency to "Agglomerate" as concentration increases.** You get a strong "Taste Que" in a Zulgtal Labs products because their repulsive charge process grants **stronger concentration without agglomeration.**

Other colloidal solution tests

For Silver solution colloids, since silver is photosensitive, light causes agglomeration. This problem is solved in three ways.

1. Dark bottles
2. Long term storage out of direct sunlight.
3. A proprietary non additive process involving the silver ion cloud.

E. Shelf Life The above attention to detail and quality control constitutes primary influence upon the third consumer recognizable issue of SHELF LIFE. If the above issues are properly managed and the bottle contents are closed and not contaminated by the user, then shelf life for any "Pure Colloid" should be in terms of years not months

Further colloidal characteristics Measurements such as Turbidity, pH, and magnetic fields though somewhat significant to a lab technician in controlling his processes are not worth covering in this text.

Although Zulgtal Labs recognizes that no layman possesses the Lab test facilities necessary for ultimate determination of the above diverse technical colloidal characteristics the above summary list enables the consumer a visibly detectable criteria that will suffice to eliminate most other products from the running.

