

Nano-Silver Proven Safe

Introduction

A great deal of misinformation has been released from the media claiming that nano-silver products have not been tested for safety, and that it is unknown what effects the products may have on people or the environment. It has also been stated that these silver products can cause heavy-metal poisoning. Little, if any, of this attack on nano-silver has validity, and more importantly it is the work of people or special interest groups that have something else to gain by limiting a persons free right to have and use safe silver products. ABL has spent millions of dollars on testing the safety and efficacy of nano-silver technology products.

EPA Registration

ABL already has been awarded a registration for two of their ASAP nano-silver products from the EPA, after having completed thousands of antimicrobial tests meeting strict EPA guidelines. Those products have 10-minute-kill-time claims for both home and hospital disinfection against deadly pathogens like staph, yeast, and black mold, etc. The products have also been approved for disinfecting dental water lines used to spray into human mouths, as well as heating and ventilation systems for home and industrial use.

Nano-Silver Safe For The Home And The Environment

Each EPA approved product is required to have safety information, and according to that information a toxic spill or EPA reportable spill amount is required to be printed in the product MSDS sheet (Material Safety Data Sheet). For example, a chlorine-type cleaning product (found for open purchase on store shelves right now) has a toxic spill rating of about three gallons, meaning that a spill of three gallons or more must be reported to the EPA and handled by HAZMAT authorities. In comparison, ABL' 32 ppm nano-silver product has a toxic spill rating of 12,500,000 gallons. An oil tanker will hold about a million gallons, which means that 12.5 oil tankers full of the ASAP nano silver disinfectant would have to spill their entire loads of the product together to be deemed a toxic event to the environment. The management of ABL believes that there is no tank or vat large enough in the entire world that could hold and subsequently spill enough of the ASAP disinfectant product to actually be reportable as a toxic spill to the environment. In other words, ABL' nano-silver disinfectant product is perhaps the safest disinfectant product, for environmental reasons, ever approved to kill bacteria, mold, yeast and other pathogens.

Nano-Silver Tested For Cyto-toxicity (Will It Harm Human Cells?)

A number of independent cyto-toxicity tests have been completed on ABL' nano-silver products. At both 10 and 22 ppm, the products were found to do no damage at all to either human or monkey cells, meaning that they were found completely non-cyto-toxic. ASAP nano-silver gel products were tested for cyto-toxicity at both 24 and 32 ppm by an independent FDA/EPA approved lab. According to FDA guidelines, the cyto-toxicity is reported on a scale of 1-4 (4 being highly cyto-toxic and 1 being very safe for use). Both the 24 and 32ppm ASAP nano-silver products were deemed in the testing to be a level 1, in other words having little or no negative effect on the skin.

Ingested Nano Silver Toxicity Studies

Numerous ingested toxicity studies have been completed on ABL' nano-silver products. Some of the studies are outlined below. Independent LD-50 tests on animals at levels equivalent to approximately 200 times the normal internal use adult dosage were found to be non-toxic to the animals. A 28-day bird flu study completed by a U.S. NIH virology lab also included a toxicity study in which the animals were fed levels of the nano-silver at 10-200 times the normal dosage daily. The ASAP nano-silver products were found to be non-toxic to the animals in the long term study. A separate medical college study tested the ingestion of ABL' nano-silver product in animals at levels of 0.5 ml, 1.0 ml, and 1.5 ml daily for 28 days, and again found the product completely non-toxic to the animals. An Indian (WHO approved) lab tested the ASAP nano-silver products for toxicity in a mouse-model study at levels of 50, 500, 5,000 mg/kg. The product was again found to be completely non-toxic to the animals at all levels tested in the Indian study. A peer-reviewed preliminary HIV Human

study found that the oral ingestion of 2 ounces daily for four months of the 10 ppm ASAP nano-silver product, had no negative effect on the seven human patients. A U.S. Congressional Testimony outlines the use of the ASAP nano-silver product at between 0.5-1.0 ounce daily use at 10 ppm, for human use of the product against malaria and other human ailments (120+ cases). In all cases, no negative effects were reported from any of the four hospitals and clinics that tested the product, by either external or internal use (mostly internal use).

Injected Nano- Silver Toxicity Studies

Two injected mouse model studies have been completed testing the ASAP nano-silver products at a level of 50 mg/kg, at both 10 and 32 ppm levels. Both studies found the products to be completely non-toxic to the test animals.

Will Nano-Silver Kill Probiotic Or Friendly Digestive Bacteria?

Two independent studies have been completed by two different major labs, testing the effect of ABL' ASAP nano-silver on probiotic or friendly and needed digestive bacteria. Both studies found that the ASAP nano-silver products would not even inhibit the growth of probiotic bacteria at all levels at which it is being used.

Does Silver Cause Heavy Metal Poisoning?

The claim that silver can cause toxic nephropathy or heavy metal poisoning is being made by both pseudo-scientists and the uniformed news media. The statement shows a complete lack of even the most basic scientific knowledge about silver. Toxic nephropathy is defined as "Any functional or morphologic change in the kidney produced by an ingested, injected, inhaled, or absorbed drug, chemical, or biologic agent." Probably the most correct and widely accepted authority on the subject would be the **MERCK Manual Of Diagnosis And Treatment**. The 17th edition of the manual, on page 1880, shows the complete list of heavy metals that can cause heavy metal poisoning.

The list includes a number of metals like copper and iron that are found in everyday vitamins, but silver is not listed in any form. It was not accidentally forgotten from the list, and it was not listed in the comprehensive list because it does not cause the problem! Listed under "Methemoglobin formers" the Merck does list sodium nitrite as a cause of nephropathy, the importance of this being that if silver is mixed with heavy salt or sodium products, it could be classified as causing nephropathy, not because of the silver, but because of the heavy amount of salt contained in the matrix of the combined product. The heavy use of silver nitrate in the medical industry (both past and present) may have led people to the common, but incorrect misconception about silver.

Has The U.S. EPA Established An RfD Or Oral Daily Silver Intake Limit?

In 1991 the EPA issued an oral intake limit for daily use on silver to be 0.005 mg/kg/day (EPA RED Document pg.2). That means that according to the EPA guidelines for silver ingestion, an average size adult could safely consume the equivalent of one ounce daily of a 10 ppm silver product and not exceed the EPA established daily intake limit. On page two of the EPA RED document it states, "EPA does not anticipate that dietary exposure to these low levels of silver will be associated with any significant degree of risk".

Can Oral Silver Consumption Cause Cancer?

It has been suggested by numerous pseudo-scientists that the long term use of silver can cause cancer in some form or another. The statement is false. The EPA IRIS (Integrated Risk Information System) Report on Silver states under the first paragraph listed under section 11.A.2., "No evidence of cancer in humans has been reported despite frequent therapeutic use of the compound (silver) over the years". Again under section 11.A.4. it states, "Further support for the lack of silver's ability to induce or promote cancer stems from the finding that, despite long standing and frequent therapeutic usage in humans, there are no reports of cancer associated with silver".

Can Silver Cause Cells To Mutate?

On page 9 of the EPA IRIS Report it states, "**No evidence of the mutagenicity of silver was shown in two available studies**". **The European Commission Has Determined The Oral Supplement Use Of Silver To Be Safe!** *The European Commission,*

Health & Consumer Protection DirectorateGeneral, Opinion listed under Directorate B - Scientific Health Opinions, on the use of silver in medical devices, beverages, and supplements, issued their opinion on June 27th 2000 after a comprehensive study of the subject. The opinion is stated in their conclusion on page eight. The opinion states, "According to Annex IV of Directive 94/36, Silver (E. 174) can be used quantum satis to color both food and beverages, and the metal can also be ingested in the form of dietary supplements sold in "health-food" shops". In other words they found that silver metal was safe for oral ingestion as a supplement!

Why Are There Some Negative Historical Reports On The Use Of Silver Products?

Historically, silver was used at very high levels and mixed with numerous toxic compounds including arsenic, mercury, salt, iodine, and others. It was not the silver in these compounds that made the complex toxic, as listed in the reports quoting some reported case studies, but the other added products. There is a vast amount of data on the toxicity of the other compounds, like arsenic, which when added to silver could make the entire matrix toxic. The most widely used compound that was mixed with silver was salt, in the form of sodium nitrate. Silver nitrate was used at very high levels. Even when used at those high levels, the silver nitrate products were found to be only mildly toxic. Even found to be safe enough to put into baby's eyes at birth.

One toxicity study on rats (EPA Office Of Drinking Water report issued August 1988, Revised January, 1991 pg. III-18) cites an oral toxicity study completed on rats. The rats were given drinking water containing 1296 mg/l (equal to 1296 ppm silver) of silver nitrate. Drinking the very high content silver nitrate as there entire drinking water supply daily, the animals remained healthy for 60 weeks (1year and 3 months). After the 60 weeks the animals started to deteriorate in health. After the 76th week the animals were returned to drinking regular water and all animals returned to normal health. This proved that even long term ingestion of huge levels of high-content silver nitrate, only had a mildly negative effect on the animals, and that effect was only temporary with no lasting effect once they were taken off the product.

Safest Means To Protect Our Homes And Families

In December of 2000, a JAMA article reported that more than 100,000 people had died that year as a side effect of antibiotics used correctly. That number did not include antibiotics that were misused. Of the millions of people consuming silver products of all types that year, no deaths were reported. If a child accidentally consumed one bottle of vitamins or household cleaner, or hundreds of other products in our homes, he or she would most likely be killed or at least harmed. In comparison, if that same child were to accidentally drink an entire 16 ounce bottle of the EPA approved ASAP hospital disinfectant, he or she would not be harmed in any way. A major university found in its testing that this same product, which would not hurt a child, could kill the two most deadly bacteria found in hospitals (MRSA and VRE), even when it was diluted way down to only 2.5 ppm. The point is that silver may not be perfect, but it is by far the safest and most effective, hospital, home, and body disinfectant we have in the world today. It is the only safe way we currently have to fight off deadly infections and disease.

Proven Effective Against Pathogens

Our parent company ABL currently holds more than 160 independent studies from more than 60 different private, U.S. government, military, and also university labs. The studies include more than an estimated 10,000 individual antimicrobial tests. The ASAP nano-silver product has proven effective at eliminating malaria from the bloodstream in 4 different preliminary studies, in an average of just 3.34 days, by internal human ingestion. The product was proven, in an animal-model study at a U.S. government NIH lab, to be able to increase the survival rate of mice by 100% against the deadly H5-N1 Bird Flu virus, when using the product orally on a daily basis (also released in peer review journal). The product was proven in a preliminary, independent, peer reviewed journal article, to be able to increase the T lymphocyte count in 7 human AIDS patients by an average of almost 40%, in four months of oral usage at just 2 ounces daily. The product technology is patented to be able to kill TB, MRSA, Hepatitis b., HIV, yeast, and too many other pathogens to list here. The point is that it is very broad spectrum antimicrobial agent, which also has been tested found to be completely non-toxic to humans and animals at any level tested.

Personal Use

From President of ABL: My personal anecdotal human safety study has been completed to date using myself as a test subject. I have ingested orally an average amount of approximately 2-5 ounces weekly of the ASAP nano-silver product for the past 10 years. I have consumed as much as 20 ounces of the product in a seven day period of time. I have, in addition, used the gel products on my face and hands and other body parts almost daily for two years. I have suffered no ill effects. I am not blue. My kidneys and liver function well. I have almost never been sick, even when people around me have been. I am in very good health. I know more than a dozen people who have used the product as long as I have. They, like me, have also experienced no negative side effects. I will continue my human study.

Conclusion

Nanosilver has already registered with the EPA as a pesticide, with approvals as a surface disinfectant, HVAC disinfectant, and also as a disinfectant for dental water lines. The company has been issued a toxicity rating showing that in order for the product to be toxic to the environment, 12,4500,000 gallons of the hospital disinfectant product would have to be spilled at one time. No tank or vat could even hold enough of the product at one time for it to be considered toxic in the event of any spill. ABL has completed millions of dollars of comprehensive, independent safety and effectivity data on its nano-silver products, including but not limited to: cyto-toxicity studies; injected and ingested studies at high and low levels of silver content and also for both short and long periods of time; also skin sensitivity studies. All studies have concluded that the ASAP nano-silver products are not toxic to cells, animals, or humans.

The U.S. EPA has issued an RfD for silver showing that a normal size adult could safely consume the equivalent of an ounce of a 10 ppm product daily for an entire lifetime (based on 72 years). The European Commission On Health And Consumer Protection issued an opinion after a comprehensive study on silver that metallic silver was safe for ingestion in drinks and food, and also could be sold in health-food stores as a supplement.

Silver is not a metal that causes heavy metal poisoning as has been reported by numerous pseudo-scientists. The Merck Index does not list silver as a compound that cases nephropathy.

Historically silver has been mixed with numerous toxic substances like arsenic, mercury and sodium nitrate. These substances were often reported as having some toxic effect when used in large quantities. The silver was not a toxic product in an of itself, but was sometimes reported as being toxic because of the other added substances.

The President of ABL: My own personnel study of the safety of the nano silver product has been ongoing for the past 10 years, using an average of 2-5 ounces weekly. I have suffered no negative side effects from my long-term ingestion of the products. My study continues.

Humanity must be allowed some way to safely protect themselves and their families from deadly pathogens and infections that are rampant in our hospitals, schools, and homes. Silver may not be perfect, but it is by far the safest and most broad spectrum bacteria and infection killing substance available to mankind right now.