



SUPRLABS

IS SILVER SAFE?

HISTORY OF SILVER:

- It is important to note that bacteria have been exposed to sub-inhibitory levels of Ag⁺ for over four billion years and no widespread resistance has been evident to date, whereas widespread antibiotic resistance has developed within the last 60 years.
- It is well documented that silver coins were used in ancient Greece and Rome as a disinfectant for the storage of water and other liquids.
- NASA uses silver to maintain water purity on the space station.
- Silver used as jewellery across cultures and over centuries which includes coming in constant touch with the body.

RESISTANCE OF BACTERIA TO SILVER:

- The resistance to silver has not been seen. Evidence suggests that most preparations capable of delivering sustained silver-ion release are effective against MRSA and VRE, and as yet no resistant strains have been encountered clinically. (Lansdown AB: Its antibacterial properties and mechanism of action. J Wound Care 2002; 11(4): 125-130)

CARCINOGENICITY:

Weight-of-Evidence Characterization.

Classification -- D; not classified as to human carcinogenicity. Basis -- In animals, local sarcomas have been induced after implantation of foils and discs of silver. However, the interpretation of these findings has been questioned due to the phenomenon of solid-state carcinogenesis in which even insoluble solids such as plastic have been shown to result in local fibrosarcomas.

▶ [Human Carcinogenicity Data](#)

No evidence of cancer in humans has been reported despite frequent therapeutic use of the compound over the years.

[Additional Reference:](#) Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333

FAQ about SILVER FIBERS

► Oral RfD Summary

CRITICAL EFFECT	EXPERIMENTAL DOSES*	UF	MF	RFD
Argyria 2 to 9 years. Human i.v. study Gaul & Staud, 1935	NOEL: none. LOAEL: 1 g (total dose); Converted to an oral dose of 0.014 mg/kg/day	3	1	5E-3 mg/kg/day

* Conversion Factors: Based on conversion from the total i.v. dose to a total oral dose of 25 g (i.v. dose of 1 g divided by 0.04, assumed oral retention factor; see Furchner et al, 1968 in Additional Comments section) and dividing by 70 kg (adult body weight) and 25,500 days (a lifetime, or 70 years).

CONCLUSION:

- Hence in conclusion it is safe to say that **SUPRLABS** is a very safe and efficient multi-functional platform technology.
- Plethora of scientific data is available which concludes that there is no evidence of a silver-resistant pathological organism.
- The fact that silver has been in existence over centuries and been used as an anti-microbial product in utensils, jewellery etc proves that silver has been and will be safe to use in various applications.

ARE ALL SILVERS EQUAL?

No, there are many kinds of silver technologies found. some are colloidal, some alloy, some nano etc.

Our silver is unique as it is inert under neutral conditions. The secret to this is the metallic nature of our technology. Our silver does its magic by reacting to the stimuli of the surrounding and releasing silver ions. The cation in turn sanitizes the surroundings successfully. Our technology helps in using very small quantities of ions for optimal performance.

DO WE NEED HUGE AMOUNT OF SILVER FOR GOOD PERFORMANCE?

This is false and myth. The technology is oligodynamic hence small amounts of ions are enough.

AREN'T SOME PEOPLE ALLERGIC TO SILVER?

There has never been a documented case of an allergic reaction to pure silver. In rare cases, people are allergic to sterling silver, where the allergic reactions are due to other metals.

WHAT TESTING ARE DONE?

Many, we always encourage third party testing for sake of being completely objective. This enables the users to feel fully confident of our technology.

DO YOU NEED SEVERAL ITERATIONS FOR GETTING THE DESIGN OF CORRECT END USER PRODUCT?

We would be lying if we say no. every application, design will be different from other. This is where we show our expertise by suggesting the correct product and design for optimal performance of your product.

IS THERE A FEELING OF 'ROUGH' SENSATION ON THE BODY OF WEARER?

Actually, it is the opposite. All wearers have reported greater conform while wearing products with our technology.

CAN THE TECHNOLOGY BE MODIFIED ACCORDING TO THE END USER REQUIREMENT?

Yes, we offer several products of various sizes and surface areas based on your needs. We can off-course, work with you to provide alternative products as well on research basis. Do you provide exclusivity?

Normally the answer is no. We however can look at case by case basis and explore if any avenues are available for limited protection.

IS THE SILVER TECHNOLOGY PATENT PROTECTED?

We have chosen to keep our technology as “trade secret”. This enables us to keep improving our technology and not disclose our know-how due to worry of wrongful technology stealing in non patent enforceable countries. We however patent applications.

CAN YOU MAKE PRODUCTS WHICH ARE CONDUCTIVE AND NON-CONDUCTIVE?

We are specialist in this area.

CAN YOU ALTER THE SURFACE STRUCTURE OF SILVER FOR BETTE PERFORMANCE?

We have the unique ability to do this.

IS THIS TECHNOLOGY LAUNDER ABLE?

Yes this technology is effective after multiple washes. However, care must be taken not to chlorine bleach or use free sulfu in conductive applications.

ARE YOUR SALESFORCE WELL VERSED WITH THE SILVER TECHNOLOGY?

Yes, they are quite knowledgeable. We are however, a phone call or message away if more information is needed.

IS THERE CHANCE OF COLOR VARIATION IN THE SILVER TECHNOLOGY?

Surely there is a chance. As much as we try to limit this, silver is the most reflective element found. So many small variation in the substrate can lead to color variation. However under a good microscope you can see that the silver looks similar.

IS THERE CONCERN OF USING ANTI-MICROBIAL PRODUCTS?

There should be always a concern to use anti-microbial products. Care must be taken to work with the technology you choose. our technology is safe and easy to use. In fact, our technology is used in advanced wound care dressings, water filtrations, filters and other close contact applications. There are no adverse reactions reported. our technology undergoes special process which assures only pure silver is deposited on the substrate. Additionally all our post process and checks provides “rest assured” comfort to our partners.

CAN THIS TECHNOLOGY BE USED IN MULTIPLE FORMS OF PROCESS SUCH AS KNITTING ETC?

Surely it is possible. Our technology can be used for knitting, weaving, carding, spinning etc. Since we offer chopped fibers, staple fibers and filament yarn this is possible. Silver being malleable with superior bonding helps this technology to be used as normal textile product.

CAN OTHER SUBSTRATES BE METALIZED?

We have metalized several other substrates. examples are: acrylic, foam based products, teflon, pp, kevlar etc. for special requirements we are always available to work together as a research project.



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