

# Antibacterial

**UNOTRON**

**Silver**

**Fights Germs**

Silver is a natural element used since ancient times as a versatile healing tool and it was in the 1920's that it was demonstrated that silver ions possess antiviral properties.

Silver ions interact with a wide range of molecular processes within micro organisms resulting in a range of effects from inhibition of growth and loss of infectivity, to cell death, thereby accounting for the high efficacy of UNOTRON's antimicrobial agent.

- Silver ions may bind non-specifically to cell surfaces, causing some disruption to the cellular membrane function and allowing the silver ions to penetrate the microbe structure.
- Silver ions are highly reactive and readily bind to electron donor groups, with prime targets being the thiol groups (-SH) which are commonly found in enzymes within the microbe.
- Silver ions react with the base pairs of DNA thus preventing DNA replication. Silver provides a durable, non-leachable antimicrobial treatment and the Ionic silver is not prone to causing resistant bacterial strains.
- Silver ions do not affect the performance of the product, other than imparting long lasting antimicrobial qualities that cannot be washed or rubbed off. Because our additive works differently to antibiotics, it does not create conditions for the evolution of new resistant strains of bacteria.

All new **UNOTRON** products contain long lasting silver based additive to provide yet further protection against infection

UNOTRON is certified for its Silver ion additives by EPA  
EPA Reg : 3090-216

