

ARGESIL

The QC Protocol behind the making of the humble Asprin can give a headache to the uninitiated.

GMP & Environmental Standards? Area Classification Norms? Maintenance of aseptic & sterile conditions? The list goes on and on. Man and method have to function together with military discipline --- never a step out of line.

Welcome to the Pharmaceutical Industry. Here, *'predictability'* is life!



By 2050, antimicrobial resistant infections may become the leading cause of death.

We are entering a post-antibiotic era where simple and previously treatable bacterial infections can kill. Routine medical procedures that rely on antibiotic preventive treatment, such as joint replacements and chemotherapy, may not be tenable.

Environment monitoring & controls are key to antibiotic resistance in pharmaceutical and healthcare units.



Presenting,

ARGESIL

ARGESIL is the outcome of extensive research in the field of nanomaterial science. It combines a wonder chemical of the millennium, HYDROGEN PEROXIDE, with SILVER in nanoparticle size, ~10nm. The Silver Nanoparticles stabilize the Peroxide and enhance its anti-microbial properties -- even at lower concentrations. That makes the ARGESIL disinfectant very effective across diverse applications in pharma environments. It kills bacteria, viruses, fungi, and disease-causing spores and microorganisms instantaneously. What's more, it continues to work for much longer than ordinary micro-biocides, thereby minimizing the precious time that's lost to downtimes.

It delivers unfailingly, comprehensively, and consistently. It's...

"Delightfully Predictable!"

Nanotechnology based Broad-Spectrum Disinfectant

- Broad-Spectrum & kills up to 99.999% Harmful Bacteria (as per EN 1276) Highly effective on Viruses, Fungi, And Multiple Drug Resistant Bacteria & Spores
- Non-Toxic & without Chemical Residue
- Safe for Children, Infants, & the Elderly
- Pet-Friendly
- 100% Eco-Friendly
- 100 % Biodegradable -- it decomposes to Water & Oxygen post use
- Alcohol-Free
- Versatile in use - on Surfaces, as a Fumigant, and inside Hard-To-Reach Spaces



ARGESIL

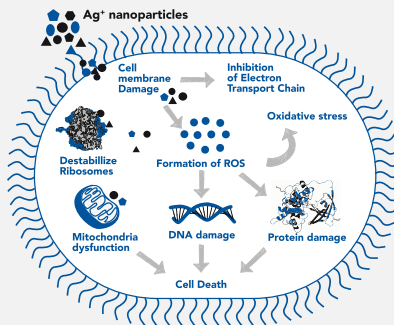
CAUSE FOR CONCERN



The coming of a post antibiotic era.

Previously treatable bacterial infections can become untreatable. Procedures that rely on antibiotic preventive treatment may not be tenable. By 2050, antimicrobial resistant infections may become the leading cause of fatalities.

MECHANISM OF KILLING



Silver Nanoparticles penetrate and cause structural damage to the cell membranes. Their positively charged ions create free radicals that effect the **instantaneous death of the cells.**

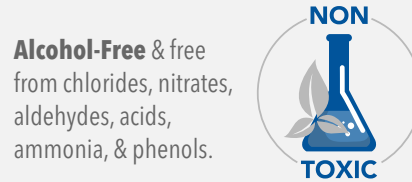
SCIENCE

Silver Nano provides **continuous killing**; stops replication of microbes.



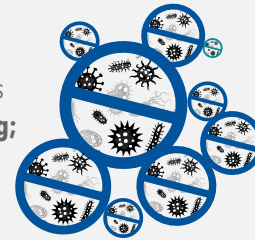
Colourless & Odourless

It is non-toxic and free from chemical residues - **prevents environmental contamination.**



Alcohol-Free & free from chlorides, nitrates, aldehydes, acids, ammonia, & phenols.

SOLVES THE PROBLEM, WITHOUT ITSELF BECOMING A PART OF IT!



APPLICATION



- Surface Disinfection
- Aerial Fumigation
- Sterilization of Process Equipment, Cleanroom Areas, & Microbiology Labs
- Laundry
- Air-handling Filters & Hotspots
- Disinfection of Potable Water Purification, Purified Water Systems, Loop & Storage Tanks, etc.

SENSIBILITY



ARGESIL, from ARGENOBEL, is a biodegradable multi-purpose disinfectant, **highly effective in pharma units.**

It decomposes into **oxygen and water**, making it environmentally friendly.



In the times of climate change, ARGESIL makes perfect sense.



Kills up to **99.999%** bacteria in just **5 minutes** of exposure.

Regular fumigation with ARGESIL maintains **area classification norms** in Pharma Units.

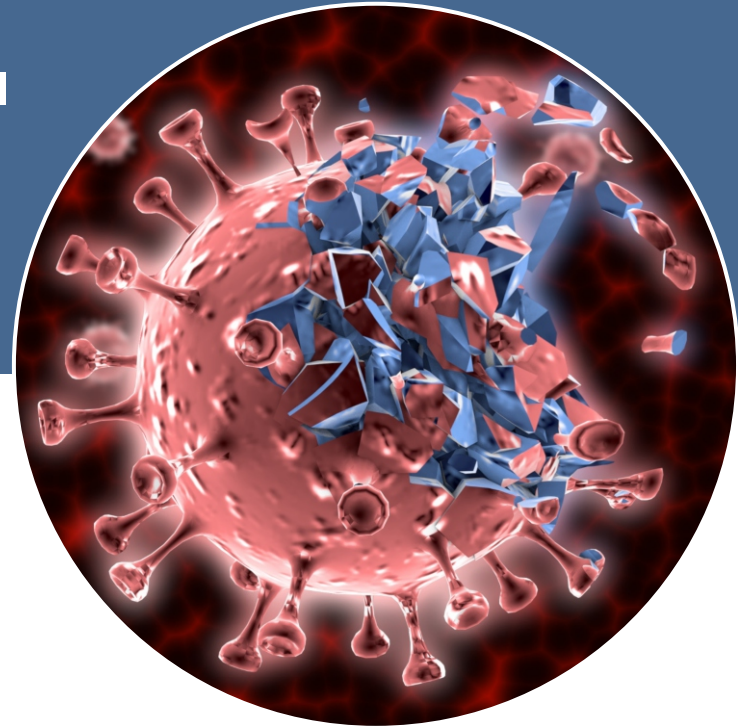


'Mechanism of killing' explained.

Silver Nanoparticles anchor to the bacterial cell wall and penetrate it, causing structural damage to the cell membrane and bringing about the cell's death. On the other hand, the formation of free radicals -- thanks to the positively charged ions from Silver Nanoparticles -- also causes the extermination of the cell. In comparison to other salts, Silver Nanoparticles cover larger surface areas. That leads to better contact with the microorganisms and comprehensive disinfection of spaces.

Hydrogen Peroxide is a widely used antimicrobial chemical. It is used in both, liquid and gas forms, for preservative, disinfection, and sterilization applications. Its advantages include its potent and broad-spectrum antimicrobial activity, flexibility in use, and a better safety profile in comparison to other micro-biocides. It is effective against all forms of microorganisms --- including dormant forms with known high resistance, viz. bacterial spores and protozoal cysts, and infectious proteins such as prions.

Hydrogen Peroxide is highly toxic to microbes, yet it is also 100% biodegradable



and environmentally friendly -- breaking down to water and oxygen when exposed to light.

The efficacy and safe use of Hydrogen Peroxide depends on its concentration and contact time. Systematic monitoring of the environment and a proper evaluation of the bio-load are necessary for the optimization of concentration and contact time required for the termination of contamination.

ARGESIL kills up to 99.999% harmful and infectious microbes in just one use, in mere 5 minutes.*

*Refer the Efficacy Study Report as per EN 1276 Guidelines.



"Delightfully Predictable!"

Technical Datasheet

Argesil Pharma is a highly recommended multipurpose disinfectant for use in Pharmaceuticals for maintaining highest level standards. It's regular use maintains the area classification norms including aseptic and sterile conditions. Argesil is manufactured using Purified water recommended for disinfection of Sterile & Non Sterile area.



Composition:

Hydrogen Peroxide 12.5% w/v
Silver Nanoparticles 0.0125% w/v
D M Water q.s.

- Efficacy Tested in NABL accredited lab
- Recommended by WHO, EPA, CDC & ICMR
- Manufactured in GMP certified facility

Application:

Surface Disinfection, Aerial Fumigation, Sterilization of Process Equipment, Clean Room Areas & Microbiology Lab, Use for Laundry, Air Handling Filters, Hotspots, Potable Water Purification, Disinfection of Purified Water System, Loop & Storage Tanks, etc

Direction for Use: Dilute Argesil in Clean Water

Aerial Fumigation – 1 part in 4 parts water

Surface & Floor disinfection – 1 part in 24 parts water

Water System – 1 part in 600 parts water

Filters & Gaskets – 1 part in 4 parts water

*Recommended contact time- 5 to 20 minutes. Contact us for high bio-load customised solution.

Storage: Store in cool and dark place

Shelf Life: 12 months from date of manufacturing



OXIDIZER



CORROSIVE



IRRITANT

Health: Not for medicinal use. Can cause eye damage in case of direct contact. May cause mild skin irritation. May cause respiratory irritation. Harmful if swallowed. Keep away from children.

Safety: Wear Personal Protective gear like gloves. Nose mask & eye goggle while using the concentrated liquid.

First Aid: Wash the affected part with ample water or take medical assistance in case of severe injury/exposure.

Efficacy

H2O2 Conc.	Duration	Killing*	Micro organisms
~ 0.5 %	20 mins	99.99%	E.coli, Staphylococcus Aureus, Pseudomonas Aeriginosa, Salmonella Typhi, Methicillin-Resistant Saphylococcus Aureus and C. albicans.
~ 1.5 %	10 mins	99.99%	
~ 2.5 %	10 mins	99.999%	
~ 5.0%	10 mins	99.999%	
~ 12.5%	5 mins	99.999%	

(*) Tested as per EN 1276 guidelines.

Removal of Biofilm

A 'biofilm' is a syntrophic consortium of microorganisms. It is made up of cells sticking to each other and often also to a surface. These adherent cells become embedded within a slimy extracellular matrix that is composed of extracellular polymeric substances. The cells produce EPS components that are typically a polymeric conglomeration of extracellular polysaccharides, proteins, lipids, and DNA. They have a three-dimensional structure and represent a community lifestyle for microorganisms. For that reason, they are also called 'Cities of Microbes'.

Biofilms are responsible for chronic illness and nosocomial infections, industrial pipe fouling, spoilage of foods, contamination of seafood and dairy products, as well as ship hull fouling. Bacterial biofilm-associated infections can also cause diseases in humans, viz. wound infections, osteomyelitis, chronic sinusitis, central nervous system shunt infection, contact lens-associated keratitis, chronic otitis media, cochlear-implant infection, burn-related infection, intravascular-catheter infection.

ARGESIL is extremely effective in the removal of Biofilm, in just one use.*

*Refer the Efficacy Study Report as per EN 1276 Guidelines.



"Delightfully Predictable!"

What makes ARGËSIL the disinfectant whose time has come?

IT PROVIDES FOR CHEMICAL-FREE DISINFECTION. IT CARES FOR OUR ECOLOGY.

ARGËSIL decomposes into water and oxygen. It leaves no chemical residue behind, unlike other chemical-based sanitizers and disinfectants which leave behind a coating of toxic and harmful chemicals over the surfaces they have been deployed upon.

LESSER DOWNTIME! IT CONTINUES TO WORK LONG AFTER ORDINARY DISINFECTANTS HAVE CEASED TO DO SO.

ARGËSIL is made up of Silver Nanoparticles of unique size and shape; it does not form into a cluster of micro-particles unlike other silver salts or colloidal silver formulations. For that reason, it gives continuous killing & all-day protection.

IT'S CHEMICAL-FREE.

ARGËSIL is INFANT and PET Friendly as it is completely free from arsenic, aldehyde, chlorine, and any other toxic chemicals.

IT'S COLOURLESS, ODOURLESS, & ALCOHOL-FREE.

ARGËSIL is pure efficacy, without the frills. Being alcohol-free makes it suitable for disinfecting electronic devices and for use within any religious space/custom that forbids the use of alcohol.

IT WORKS ON A WIDE REPERTOIRE OF SURFACES.

ARGËSIL can be used on all types of porous and nonporous surfaces, including marble, wood, granite, stainless steel, glass, plastic, and graphite, etc.

IT IS FREE FROM NITRATES/NITRITES

Exposure to Nitrates & Nitrites at a level higher than recommended by the WHO can affect how the blood carries oxygen and can cause methemoglobinemia (also known as 'Blue Baby Syndrome'). Bottle-fed babies under six months old are at the highest risk of getting methemoglobinemia.

MADE WITH INJECTABLE-GRADE, ENDOTOXIN-FREE PURIFIED WATER (WFI)

ARGËSIL is suitable for sterilization & disinfection in medical units and pharmaceutical plants.

https://www.who.int/water_sanitation_health/dwg/chemicals/nitratenitrite2ndadd.pdf

CERTIFIED 'BROAD-SPECTRUM' DISINFECTANT

The EPA's definition of a broad-spectrum disinfectant encompasses public health claims for all three of the major classes of organisms:

Bacteria - ARGËSIL is effective against gram-negative and gram-positive bacteria

Fungi - ARGËSIL is effective against at least one pathogenic fungus (usually Trichophyton mentagrophytes)

Viruses - ARGËSIL is effective against pathogenic viruses (at least one enveloped virus such as Influenza A and one non-enveloped virus such as Adenovirus).

Sanitizers are not considered broad-spectrum by EPA's definition as they are only meant to reduce bacteria levels. Broad-Spectrum disinfectants, like ARGËSIL, give complete protection from harmful microbes and toxic chemicals.



"Delightfully Predictable!"

The power of nanotechnology

ARGËSIL utilizes the attributes of Silver Nanoparticles. It has an unprecedented antimicrobial efficacy. It's safe, because it functions without leaving any chemical residue. It's environmentally friendly too - breaking down to oxygen and water after use. ARGËSIL is a wonder of nanotechnology, applied to a 'noble metal.'

It's hard to imagine how small nanoparticles can be

One
nanometer is a
Billionth
of a meter

OR

10^{-9}
of a meter.

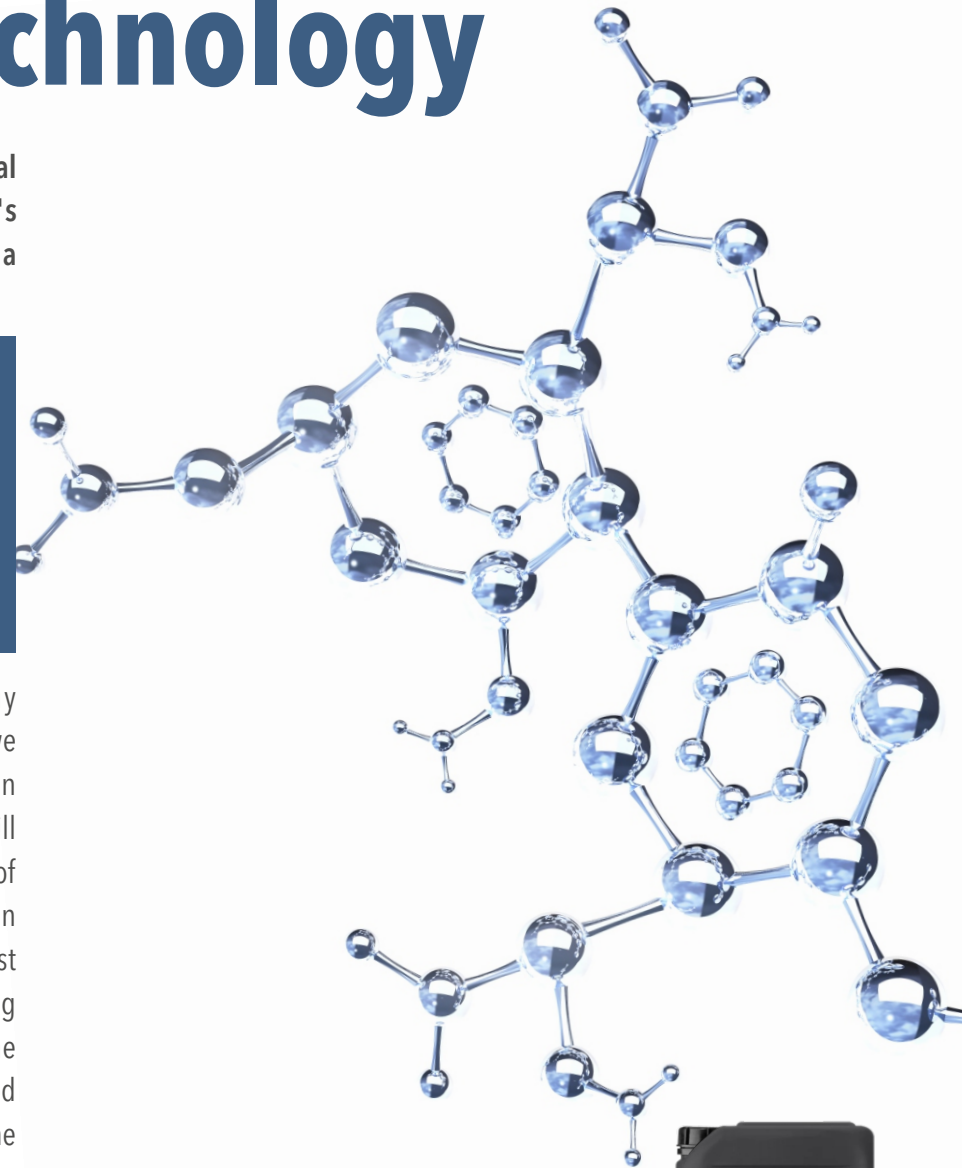
OR

you can say,
10,00,000th
of a millimeter!

At a nanoscale, we can control individual atoms and molecules to bring about surprising answers to staid problems.

Nanotechnology has made our phone batteries smaller yet more efficient at compacting power. Nanocrystalline Zinc Selenide has made display screens more immersive and vibrant. Circuits and microprocessors made from Carbon Nanotubes have beefed up computing power; it all gets bigger while shrinking the form factors. It touches our lives in many more ways: Medical/Pharma Applications, Lifesaving Electronic Equipment, Automobiles & Fuels, Fabric & Apparel, Water Filters, Sports & Endurance Equipment, Deep Ocean Applications, Cosmetics, Food Processing & Preservation, Environmental Disinfection, even the metallurgy of the common non-stick pan.

When utilized smartly, nanotechnology promises to be a manna from heaven as we grapple with the challenges that have been brought about by our unsustainable living. It will extend the lives and performance abilities of resources whose uncontrolled exploitation could be crippling to our ecology. The best sciences are those that 'leave' without leaving behind the vestiges of their aftermath. The choices nanotechnology allows us will do good to the planet -- it may, one day, eliminate the plastic in a whale's belly. It will possibly make the engine-oil changes over the lifetime of your car, count to one!



"Delightfully Predictable!"

Science & Sensibility

Balance. Reason. Sustainability.

Those are only dreams for our science.

Reality is, it rarely solves a problem... without creating another.

We ask for a method... minus the madness.

For a science... that makes sense.



The above words are our way of life.

We are ARGENOBĚL. Thinkers and innovators who are convinced, **we all can have a better, more discerning way of living than what we have now.** Our detergents get our clothes all clean and natty, but the stuff that oozes out of our washing machines pollute the seas with phosphates and destroy the ocean ecologies. Our industry has given us prosperity, but it has released enough greenhouse gases to put the planet firmly on the way to extinction. **Climate Change is a reality, and we need to change in a hurry too.** It starts with acknowledging that our way of doing things, our science, is simply not good enough. **We do not solve problems without creating a plethora of others.**



Science & Sensibility must go together. We ought to make it happen! ARGENOBĚL allows us to do a bit more than just picking up litter off the streets outside our homes. We are glad we can reach out and make a difference that can travel further. We are involved in re-evaluating the solutions that our sciences have provided us so far. We ask, 'How do we make them better?' Better for our planet, better for all its inheritors – now, and the future ones to come. Our foray into the merits of nanotechnology, ARGĚSIL, is a sensible, more effective disinfection solution than anything on the market. It underscores our philosophy completely.

The ARGESIL range

Medical

For disinfection of Operation Theatres, Immerse Medical Devices, Surgical Devices, Laundry Bed & Pillow Linen, Pathological Consumables, Catheters, etc. Hospitals, Clinics, Nursing Homes, Pathology Labs, Imaging Centre, Blood Banks, Veterinary Hospitals, & Clinics.



Professional

ARGESIL is a multipurpose disinfectant for use in areas with high footfall: Offices, Showrooms, Concierges, Hotel Rooms, Changing Rooms, Restrooms, Floors, Doors, Water Storage Tanks, Air Conditioner Filters, Water-filter Tubes, Pantry Spaces, Countertops, Furniture, Electronic Appliances, etc.

Home

Highly recommended for spraying over Fruits, Vegetables, Meat, outer packs of Parcels, Kitchen, Washing Sink, Living Room, Carpets, Floors, Storage Room, Toilet-Washrooms, Water Storage Tank, Under-ground Water Storage Tank, Cupboards, Air Conditioner Filters, Aqua Guard Tubes, etc.



Agro

Highly recommended for the disinfection of the entire Watering System – like Drip Line Systems, Irrigation Systems, Spray Systems, Silos, Hydroculture, Gutters, etc.



Our Manifesto

We walk with a science that has discovered its true purpose.

It solves a problem and, for once, desists from creating another.

A world better than we found, it brings forth - *now, and through us.*



ARGENOBËL
science & sensibility



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RECOMMENDED

