

# Disinfection

## Surfaces



logicChemie



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# Why do we need sanitizers and other disinfectants

## ■ Prevent Spread of Pathogens:

- Disinfecting surfaces helps prevent the transmission of harmful bacteria, viruses, and other microorganisms.
- By eliminating these pathogens, we reduce the risk of spreading illnesses to ourselves and others.

## ■ Reduce Risk of Infections:

- Disinfecting the skin, especially in areas prone to contamination like hands and wounds, helps reduce the risk of infections.
- It prevents microbes from entering the body through cuts, scratches, or other openings in the skin.

## ■ Enhance Medical Procedures:

- Proper skin disinfection is crucial before medical procedures to minimize the risk of introducing pathogens into the body.
- It ensures a sterile environment, reducing the likelihood of complications and promoting better outcomes for patients.

## ■ Transmission of Germs:

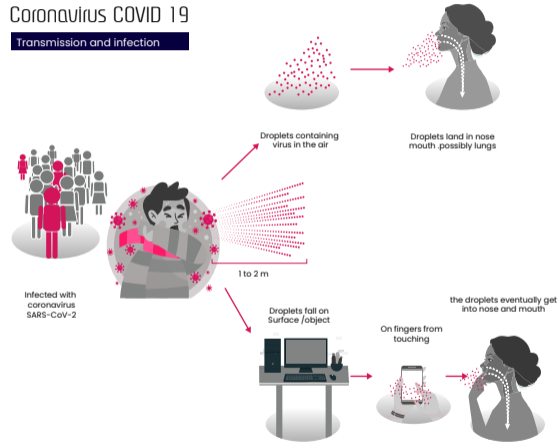
- Germs can be transmitted by individuals without symptoms, leading to the spread of infections.
- Transmission of germs occurs not only externally but also within families, posing risks of contracting diseases such as colds, flu viruses, coronaviruses, bacteria like *S. aureus*, *E. coli*, *P. aeruginosa*, as well as yeasts like *C. albicans* and various fungi.

## ■ Promote Overall Health:

- Incorporating skin disinfection into daily routines contributes to overall health and well-being.
- It is a simple yet effective measure to protect ourselves and others from illness and maintain a clean and healthy lifestyle.

## Coronavirus COVID 19

### Transmission and infection



# Logic Germ

- **Type:** Surface antiseptic
- **Duration of Effectiveness:** Up to 48 hours
- **Targets:** Bacteria, Fungi, Yeasts  
Multi-resistant germs (MRSA)
- **Enveloped viruses:**
  - Corona viruses
  - Herpes simplex
  - Flu viruses (e.g., avian flu, swine flu)
- **Other viruses:**
  - HBV
  - HIV
  - HCV
- **Antiseptic Range:** Limited virucidal
- **Virucidal Range:** Enveloped viruses
- **Virucidal Definition:**
  - "Limited virucidal": Effective against enveloped viruses
  - "Virucidal": Effective against both enveloped and non-enveloped viruses





# LogicGerm

- Suitable for disinfection of surfaces
- Within your home, office, public transport, hospital
- Leaves an active protection layer in the pores of the surface
- Suitable to sterilize medical establishments.



# So how does it work?

## ■ **Cationic Surfactant Properties:**

- Benzalkonium chloride is classified as a cationic surfactant, characterized by a positive electrical charge and a large molecular structure.
- Its large molecule size prevents penetration into the skin, while the positive charge facilitates attachment to negatively charged germs.

## ■ **Soap-Like Behavior:**

- Due to its surfactant properties, benzalkonium chloride behaves similarly to soap by significantly lowering the surface tension of water, allowing it to infiltrate even thick films.

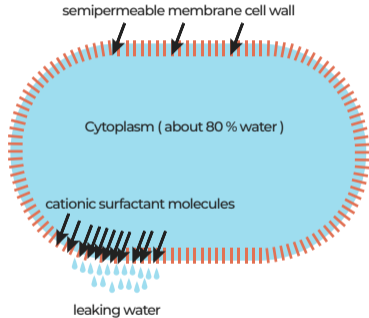
## ■ **Dehydration Mechanism:**

- Enveloped germs regulate their cell water content via pores in the cell wall.
- Benzalkonium chloride, being water-soluble, enters the cell and reduces the surface tension of cell water, causing it to become more liquid.
- The increased liquidity of cell water leads to its outflow through the cell wall pores, resulting in dehydration of the cell.

## ■ **Physical Action, Not Poisonous:**

- Benzalkonium chloride does not function as a poison that disrupts the metabolism of germs.
- Instead, it acts physically by dehydrating germs, making it an effective disinfectant without chemical interference.

### Effect of cationic surfactants on microbial cells



## How Logic Germ and MoldEx works

- Enveloped microbes or hard viruses have a semipermeable membrane as a shell that regulates the water balance. Normally, the water content of the cell fluid has a high surface tension at which the membrane is waterproof.
- The cationic surfactant molecule attached to the cell decreases the surface tension of the water in the membrane envelope and becomes membrane permeable. The cell runs out, dries and loses its viability.
- The effect last for up to **48 hours** or until the surface gets in contact with water. The cationic surfactants leaves a protected layer on the surface

# Ethanol or other rubbing alcohol

- Ethanol hardens the protein in viruses which causes the molecules to fall apart.
- This effect is only for a few minutes and does not protect for a long amount of time.
- A surface will be sterile until it gets touched again by something unsterile



- Our products have been tested and have numerous certificates.
- We believe in a safe and healthy way of engaging sanitizers in our life for ourselves but most importantly for our families.
- Logic Sept Animal is safe to use for pets, farm animals, zoo animals and so on.

Organism	inactive after minutes		
	5	10	15
E.coli	+	+	-
Salmonella typhi	+	-	
Staphylococcus aureus	+	+	-
Cryptococcus histolytica	+	+	-
Trichophyton interdigitale	-		
Candida albicans	+	-	
Strict acremonium	-		
Aspergillus flavus	+	-	
Aspergillus niger	-		
Aspergillus versicolor	-		
Aureobasidium sprouting	+	-	
Cladosporium sphaerospermum	+	-	
Paecilomyces variotii	+	-	
Penicillium chrysogenum	-		
Trichoderma green	+	-	

+ active, - inactive

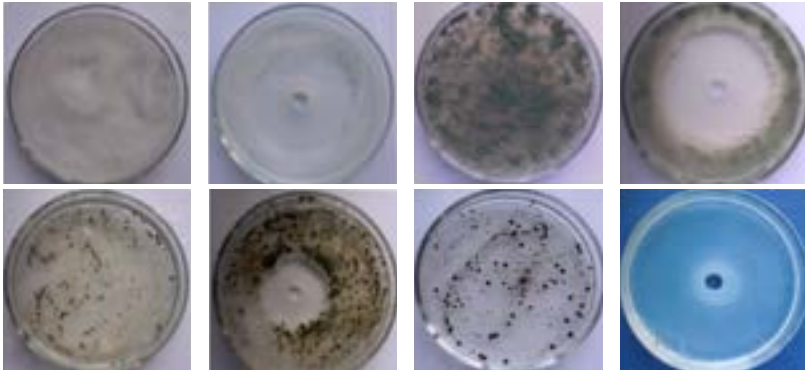
# MoldEx & MoldEx Foam

- **MoldEx:** Chlorine-Free Anti-Fungal Spray
- Safe and Effective Mold Elimination Solution
- Designed for Indoor Environments: Homes and Workplaces
- Bleach-Free Formula: Protects Porous Surfaces
- Key Ingredients: Isopropanol, Benzalkonium Chloride

Ideal for Challenging Areas: Kitchens, Bathrooms,  
Basements, and Public Transportation Systems  
Safe for Sensitive Surfaces: Leather, Textiles, Suede  
Provides a Protective Barrier  
Prepares Surfaces for Painting or Wallpapering  
Ensures a Healthy, Mold-Free Environment



# Laboratory test results of MoldEx



The effect of one drop of MoldEx after 7 days to see if the Mold would grow.

# Logic S

- A New Era of Cleanliness and Durability
- Ultimate Solution for Cleaning and Protection
- Advanced Formula: Deeply Penetrates Surfaces
- Provides Invisible, Long-Lasting Defense Against Moisture and Microbes
- Does Not Block Air Flow
- Versatile: Suitable for Indoor and Outdoor Environments
- Promises a Healthier Space for 20 Years





## Logic S

- Enhances Air Quality by Keeping Pores Open
- Combats Moisture, Oils, Chemicals, and Microbial Threats
- Safeguards Various Surfaces, Including Precious Natural Stones
- Ideal for Indoor and Outdoor Settings: Terraces, Balconies, Bathrooms, Kitchens
- 20-Year Durability Guarantee: Ensures Long-Term Performance



After



Before