Disinfection
Human

LOGICCHEMIE

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. Why do we need sanitizers and other disinfectants

Prevent Spread of Pathogens:

- Disinfecting the skin 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.

Maintain Personal Hygiene:

- Regular skin disinfection is essential for maintaining personal hygiene.
- It removes dirt, oils, and microbes that can accumulate on the skin's surface, promoting cleanliness and reducing body odor.

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.

LogicSept

- **Safe for All Ages and Skin Types:**
  Suitable for individuals aged three and above, Logic Sept is safe for use on sensitive skin, making it suitable for diverse populations.

- **Versatile Application:**
  Logic Sept seamlessly integrates into various routines, from schools to surgical rooms, offering reliable protection against germs.

- **Certified Standards:**
  Certified by DIN EN 14476, 1500, and 1040, Logic Sept adheres to strict standards for killing viruses and bacteria, ensuring optimal hygiene.

- Kills 99,999% of bacteria and viruses on human skin

LogicSept+

- **Revolutionary Alcohol-Free Formula:**
  Our disinfectant introduces a groundbreaking alcohol-free formula enriched with 20% aloe vera, setting a new standard in hygiene products.
- **Superior Pathogen Protection:**
  Experience unparalleled protection with 99.99% efficacy against a broad spectrum of pathogens, including bacteria, viruses, and fungi.
- **Gentle Skin Care Solution:**
  Ideal for those prioritizing gentle skin care, our disinfectant combines effectiveness with the soothing properties of aloe vera, ensuring a pleasant experience with each use.

- **Proven Efficacy in Rigorous Tests:**
- Our advanced disinfectant formula undergoes rigorous testing, including DIN EN 14476, DIN EN 1500, and DIN EN 1040, demonstrating its high efficacy against viruses, bacteria, and fungi across various settings.

Contents:

- Benzalkonium Chloride: A potent antimicrobial agent known for its efficacy against a wide range of pathogens.

- Aloe Vera: Enriched with 20% aloe vera for added moisturization and skin-soothing benefits.

Why LogicSept & LogicSept+

- Most of the products contain bleach, ethanol or other harmfull ingredients
- Ethanol is being used by big companies/brands but is known that is causes cancer
- Normal desinfectants contain an alcohol percentage between 70 – 96% alcohol which is harmful
- High alcohol percentage kills all bacteria: good and bad ones
- Good bacteria are the ones that product your body, bad bacteria contains virus and makes people sick
- Normal disinfectants only kills the bacteria at that moment and does not protect
- Because of the pico-technology the product stays in the skin

What Real Solution Means: **Logic Sept & Logic Sept+**

What Logic Sept Plus is:	Why Logic Sept Plus is like this:
Skin Compatible: dermatological tested and rated as "excellent".	– Benzalkonium chloride which is similar to soap. – Aloe vera cares for the skin and works also bactericidal and virucidal.
Wholesome Protection: Tested according to PN-EN 1500 and DIN EN 1040	– Benzalkonium chloride has the effect that gram-positive as well as gram-negative pathogens are quickly killed. – Good bacteria are not attacked. – The protective layer of the skin is protected and nurtured. – Does not cause allergies, dryness or cracks on the skin. – Does not cause organic ailments as others do.
Long-lasting: Works disinfecting all day	– Common disinfectants are based on high percentage alcohol. – The alcohol loses its effect within a few minutes. – Logic Sept and Logic Sept+ don't not have this problem.

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.

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.

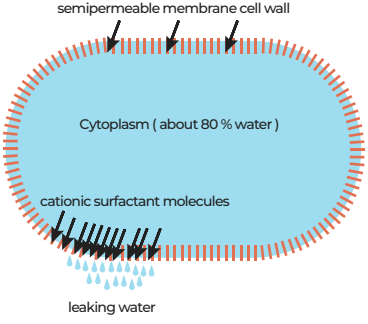
Soap-Like Behavior:

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.

Effect of cationic surfactants on microbial cells



How **Logic Sept** and **Logic Sept+** work

- 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 out and loses its viability.
- The effect last for up to 3 hours or until the skin gets in contact with water. The cationic surfactants leaves a protected layer on the skin.

Ethanol or other rubbing alcohol

- Ethanol hardens the protein in virusses 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.
- Ethanol also hardens other protective bacteria and oils on the skin, this causes the skin to dry out and get irritation when used regulary. The skin will be less protected.

- 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 is suitable for children starting from age 3 years old and Logic Sept+ is safe to use at any age including infants.

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