

## Why SEPID?

Manufacturers and users often wonder about the advantages of a good quality non-alcohol disinfectant over commonly used liquid alcohol agents.

The advantages offered by a non-alcohol disinfectant liquid versus alcohol-based liquids include:

1. Price – non-alcohol disinfectants can be much more affordable. This is because the level of active substances in alcohol-based disinfectants must be around 70%. Such a high share of active substances generates high costs.
2. Efficiency – a well-formulated alcohol-free agent is effective against bacteria, viruses, fungi and spores. Spores, as persistent forms, are difficult to eliminate. Unfortunately, alcohol disinfectants are ineffective against them.
3. Stability and hazards – non-alcohol products show high stability for up to one year. They pose no fire or explosion hazard. When used even on contaminated surfaces, they demonstrate consistent effectiveness. However, alcohol-based agents evaporate quickly and such agents with alcohol concentrations below 60% are practically ineffective. If the surface is contaminated, especially with substances of a protein type, their effectiveness is significantly reduced. Alcohol-based agents also release a lot of vapours (they are highly volatile) and consequently pose a fire and explosion hazard. This is particularly true when they are applied on large surfaces. They are also irritating when inhaled. Of course, rooms should always be ventilated when using any type of agent.
4. The effect on skin – non-alcohol agents do not degrease the skin. Alcohol-based products, despite the use of effective skin conditioners, deprive the skin of its natural lipid barrier.

To summarise – why are alcohol-based disinfectants so popular?

Factors behind the high popularity of alcohol-based disinfectants include:

- a traditional application of alcohol as a disinfectant
- easy preparation of the disinfectant formulation without special attention to detail
- availability of raw materials.

However, the most important reason for the popularity of alcohol-based disinfectants is the fact that they have been approved for marketing under a simplified registration procedure based on their formula. This did not generate testing costs. At the same time, disinfectants need to be tested for their biocidal effectiveness.

Spores are understood in two aspects:

1. Spores are understood in the context of ferns, bryophytes or fungi, where they develop in sporangia.
2. Spores as persistent forms (endospores), which are often resistant to drought, temperature and chemicals, including alcohol-based disinfectants. When conditions improve, vital functions are restored, which may lead to the formation of fully developed organisms – including pathogenic microorganisms.

In short:

**Spore, endospore** – a dormant form that enables organisms to survive in unfavourable conditions.