

# Plum Disinfectant 70%

## -a broad spectrum germicide

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Disinfectant 70% is a high efficient hand disinfectant containing the active ingredient ethanol, which is an alcohol. According to WHO, alcohol-based hand disinfectants are the gold standard for protection against the multitude of harmful microorganisms transmitted by hands. It is the only known mean for rapidly and effectively inactivating a wide array of potentially harmful microorganisms on hands.

The mechanism of Disinfectant 70% is inactivation of microorganisms by denaturing proteins, causing membrane damage and thereby cell death.

Disinfectant 70% is a fast-acting, broad spectrum germicide, as it has bactericidal, fungicidal and virucidal effects.

The bactericidal effect of Disinfectant 70% is almost complete as the disinfectant destroys both Gram-positive and Gram-negative bacteria (including multidrug resistant pathogens such as MRSA<sup>i</sup> and VRE<sup>ii</sup>). The only bactericidal inefficiency of Disinfectant 70% is against spore-producing bacteria, such as *C. difficile* and *B. anthracis*, as ethanol does not destroy bacterial spores. For these types of bacteria only physical removal of the bacteria by hand washing is efficient.

The fungicidal effect of Disinfectant 70% is profound and it is a potent virucidal agent inactivating all of the enveloped vira (e.g., Herpes, influenza virus, human immunodeficiency virus (HIV), and hepatitis B virus) and several naked vira (e.g., adenovirus, enterovirus, and rhinovirus). Some naked vira (e.g. hepatitis A virus and poliovirus) cause problems for Disinfectant 70%.

In short, Disinfectant 70% is a fast-acting, broad spectrum germicide and the documentation for the effect is evidence-based. In addition the active ingredient, ethanol, is known to have the smallest risk of inducing hand irritation compared to other alcohols (n-propanol and isopropanol) used in disinfectants. Compared to hand washing with soap and water the use of Disinfectant 70% is more gentle to the skin.

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<sup>i</sup> Methicillin-resistant *S. aureus*

<sup>ii</sup> Vancomycin-resistant *enterococcus*