

CLINICAL TESTS

Polti Sani System has been subjected to numerous laboratory tests and clinical studies, both in Italy and abroad.

The reduction of bacterial, fungal and viral contamination due to the use of Sani System has been certified on the basis of in vitro tests or in standard operating conditions in several types of environment and on many different surfaces.

Following are some of the laboratory tests and clinical studies confirming the safe use and effectiveness of Sani System. Results have shown that **it is possible to obtain better results with this innovative sanitising method than with traditional methods.**

Sanitising in dentists' surgeries
Department of Morphological, Eidological and Clinical Sciences Pavia University, Italy

The steam generated by Polti Sani System, combined with HPMed, **eliminated the Staphylococcus and Streptococcus bacterial loads** present on the dental units treated.

Sanitising in a hospital and comparison with conventional disinfection methods
Orthopaedics and Traumatology Unit and Microbiology Unit, San Carlo Borromeo Hospital, Milan, Italy

Sani System proved to have an activity in respect of several gram-positive and gram-negative bacteria and various types of fungi. Its antimicrobial activity has been found on equipment, in rooms and on inert materials such as plastic, metal and glass. In standard operating conditions, sanitization carried out with Sani System lead to a **reduction of the total microbial load by 91.6%**, compared to 88.8% using conventional methods (sodium hypochlorite solution for all surfaces with the exception of metal surfaces, on which an 0.5 % polyphenol solution was used).

Evaluation of the reduction of the microbial load in a microbiology laboratory
Istituto Cantonale di Microbiologia, Bellinzona, Switzerland

Sanitization with Sani System was found to be **effective to reduce the bacterial load** on a work surface previously contaminated with the following micro-organisms: **Escherichia coli, coagulase-negative Staphylococcus, Klebsiella pneumoniae and Proteus mirabilis.**

Evaluation of activity on MRSA
Istituto Cantonale di Microbiologia, Bellinzona, Switzerland

The **bactericidal activity** of Sani System **in respect of two strains of Methicillin-resistant Staphylococcus Aureus (MRSA)** has been analyzed on different kinds of surfaces. The use of Sani System for 30 seconds has proved to be effective in sanitising different materials such as stainless steel and melamine table tops, with a **reduction of the bacterial load by 4 logarithms**, while on ceramic surfaces, a bacterial residue was found for the most resistant strain of MRSA.

Evaluation of acute inhalation toxicity
Chemservice Laboratory, Milan, Italy

The results obtained by means of in vivo laboratory tests of acute inhalation toxicity on rats have shown that the sanitising solution **HPMed does not result as classified** according to the GHS (Globally Harmonised System) classification and labelling system at the highest concentration that can be reached ("Unclassified, because no effects were observed at the maximum achievable concentration").

Dermatological evaluation study
Chelab Laboratory, Treviso, Italy

The results obtained with patch tests used for examining the skin compatibility in healthy volunteers showed that the sanitising solution **HPMed**, applied in non-occlusive conditions to the healthy skin of 20 volunteers caused an average irritation index of nil and did not therefore result as classified according to the GHS (Globally Harmonised System).

Effectiveness of Polti Sani System in reducing microbial load on inanimate surfaces
Swinburne University of Technology, Australia

A **30 seconds nebulising** of Polti Sani System was **effective in reducing the microbial load by 100%** for representative Gram positive bacteria, Gram negative bacteria, filamentous fungi and yeasts. A **30 seconds nebulising reduced** the load of bacterial **endospores by 97%**.

Evaluation of the virucidal effectiveness (H1N1) of the Polti Sani System
Biolab Laboratory Biolab, Vimodrone (province of Milan), Italy

The virucidal effectiveness of the Polti Sani System was evaluated in accordance with European standard EN 14476. The test, carried out by the Biolab Laboratory in Vimodrone (province of Milan) showed that the Sani System was even more effective than required by European standards in lowering the viral load of the H1N1 virus. Polti Sani System was able to **lower the viral load by over 99.99 %** in only 15 seconds, thus obtaining a reduction in excess of 4 logarithmic orders.

