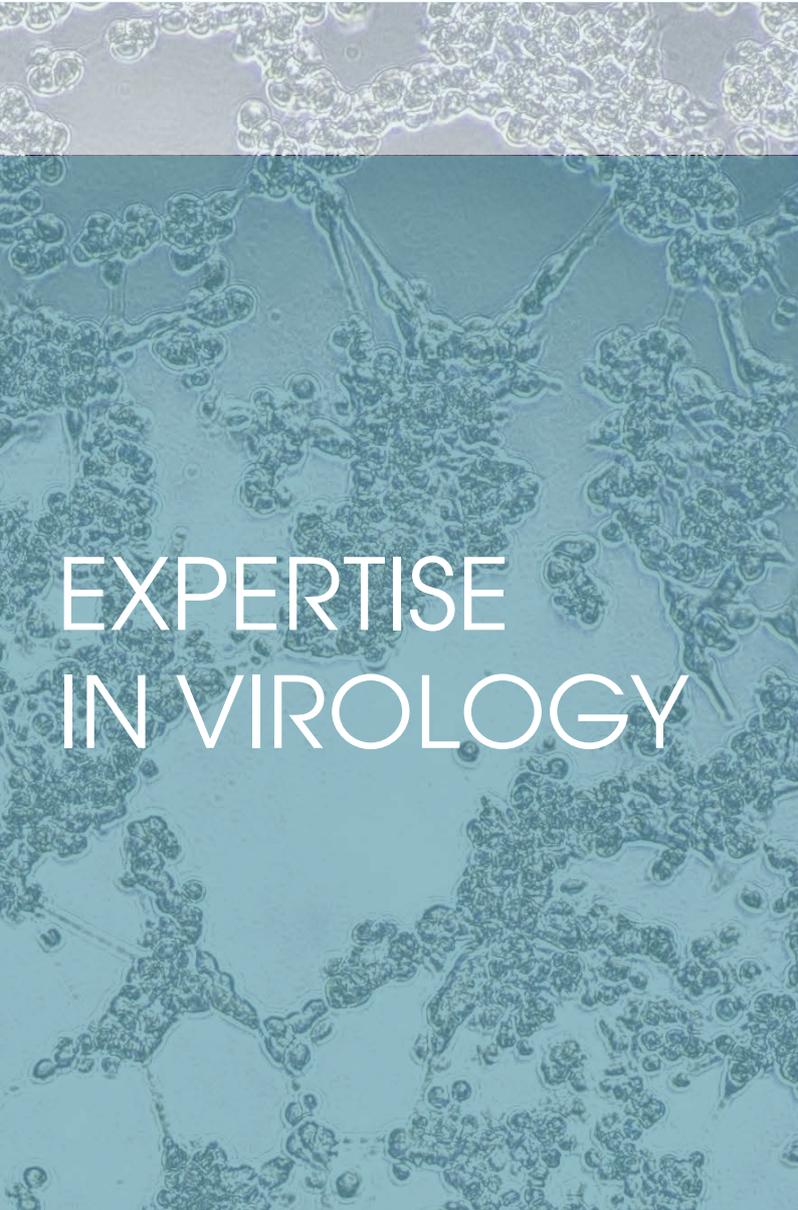


VirHealth, independent laboratory, specialized in virology, offers a wide range of standardized testing as well as the bespoke assays according to specific clients' conditions to determine virucidal activities of products, equipment, and disinfection technologies.



EXPERTISE
IN VIROLOGY

Department biocides

VIRUCIDAL ACTIVITIES OF CHEMICAL DISINFECTANTS

Realization of standardized tests and preliminary tests for the evaluation of virucidal activity of biocides.

PHASE 2 / STEP 1

NF EN 14675 (2015, Veterinary field/breeding)

Quantitative suspension test for the evaluation of the virucidal activity of chemical antiseptics and disinfectants used in the veterinary field.

NF EN 14476+A2 (2019, Medical field)

Quantitative suspension test for the evaluation of virucidal activity in the medical field. Test method and requirements.

All standards can be performed with obligatory or/and additional conditions

Additional conditions: more than 60 human and animal viral strains in VirHealth's collection, including high pathogenic viral strains (BSL3)

PHASE 2 / STEP 2

NF EN 16777 (2018, Medical field)

Quantitative non-porous surface test without mechanical action for the evaluation of the virucidal activity of chemical disinfectants used in the medical field.

NF EN 17111 (2018, Medical field, instrument)

Quantitative germ carrier test for the evaluation of virucidal activity for instruments used in medicine.

NF EN 17122 (2019, Veterinary field/breeding)

Quantitative test of non-porous surfaces for the evaluation of the virucidal activity of chemical disinfectants and antiseptics used in the veterinary field.

MICROBICIDAL ACTIVITIES OF CHEMICAL DISINFECTANTS

PHASE 2 / STEP

NF EN 16615 (2015, Medical field, wipes)

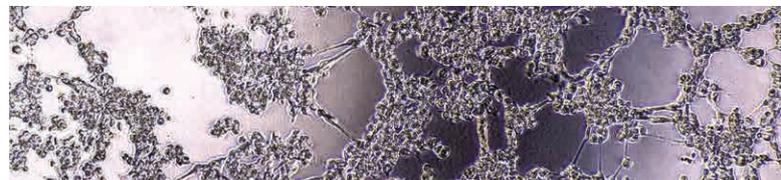
Quantitative test method for the evaluation of bactericidal and yeasticidal activity on non-porous surfaces with mechanical action employing wipes in the medical area (4- field test).

NF EN 13697 (2019, Industry field)

Quantitative non-porous surface test for the evaluation of bactericidal and/or fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas.

NF EN 16437 (2014, veterinary field)

Quantitative surface test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in veterinary area on porous surfaces without mechanical action.



VIRUCIDAL ACTIVITIES IN REAL USE CONDITIONS

We develop experimental strategies and carry out virucidal activities testing taking into account the real use conditions of disinfectant products and equipment in order to optimize the management of the viral contamination for breeding industries, research laboratories, R&D centers, biotech and industrial production areas.

SURFACES DISINFECTION PROCEDURES

- Efficacy testing of surface disinfectants and disinfectant wipes according to regulatory requirements of industrial or research activities
- Development of specific disinfection procedures according to EU/ASTM standards Phase 2, step 1 and 2. Client's viral strains or a wide range of human and animal viral strains
- Creation of contaminated testing surfaces representative of technical environments or according to clients' technical specifications in order to optimize the products' use parameters
- Virucidal efficacy test by immersion on small equipment and instruments



Department equipment

We determine the antiviral efficiencies and carry out Performance Qualifications of equipment dedicated to disinfection according to standardized tests or experimental procedures taking into account the specificities of the equipment and technical and regulatory requirements.

VIRUCIDAL/MICROBICIDAL ACTIVITIES OF SURFACE DISINFECTION PROCESSES BY STEAM WITH OR WITHOUT CONTACT

Standardized protocol: NFT 72110 (2019)

Methods of disinfecting surfaces by steam with or without contact. Determination of bactericidal, fungicidal, yeasticidal, sporicidal and virucidal activities.

Bespoke protocols

- Support: porous and no-porous surface, textile and objects
- Accessory for disinfection of surfaces and floors
- Organic and chemical interferences: organic dirt and biological liquids



VIRUCIDAL ACTIVITIES OF AIRBORNE SURFACE DISINFECTION SYSTEMS

Standardized protocol: NF EN17272 (2020) and NFT 72110 (2014)

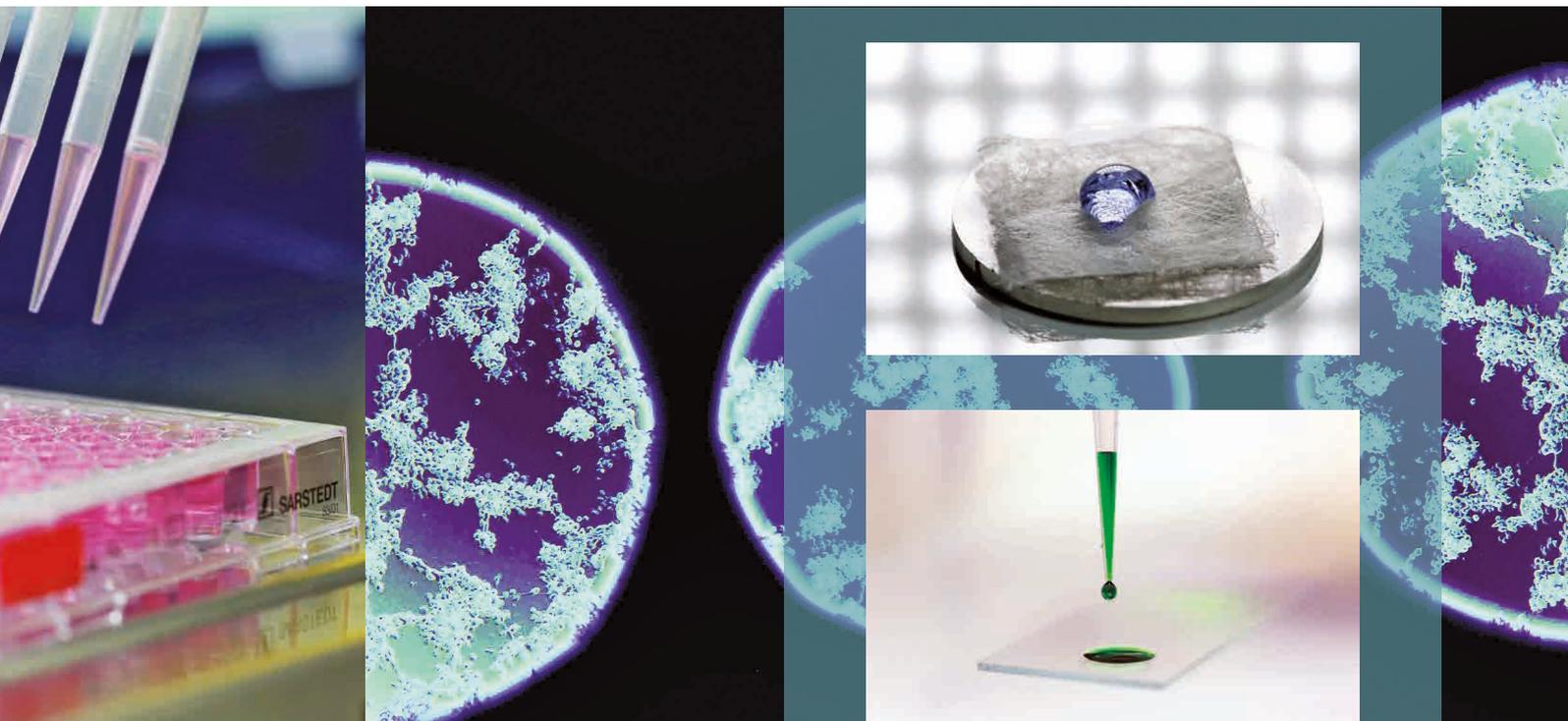
- Methods of airborne room disinfection by automated process
 - Determination of bactericidal, mycobactericidal, sporicidal fungicidal, yeasticidal, virucidal and phagocidal activities
 - Performance of standardized tests in enclosures from 2 to 50 m³
 - Performance qualification of equipment in the lab and/or on-site
- Experimental strategy using our Quantitative Biological Indicators (QBI)

Development of bespoke QBI according to client's needs and creation of mimetic biological indicators for viral issue

VIRUCIDAL/MICROBICIDAL ACTIVITIES OF EQUIPMENT

Technologies:

- UV irradiation and pulsed light
 - Ozone, plasma and gas
 - Thermal disinfection
 - Steam disinfection...
-
- Support: porous and no-porous surface, textile and objects
 - Organic and chemical interferences: organic dirt and biological liquids
 - Development of experimental protocols for the validation of equipment disinfection procedures.



We determine the antibacterial and antiviral activities of all types of surfaces, materials and textiles according to FR/EN/ISO standards or according to innovative experimental procedures adapted to the products and needs of our customers.

STANDARDIZED TESTS

ISO 18184 (2019)

Determination of antiviral activity of textile products

ISO 20743 (2021)

Determination of the antibacterial activity of textile products

ISO 21702 (2019)

Antiviral activity measurement on plastics and other non-porous surfaces

ISO 22196 (2011)

Antibacterial activity measurement on plastics and other non-porous surfaces

NF S90700 (2019)

Evaluating method for the basic bactericidal activity of a non-porous surface

ISO 18061 (2014)

Antiviral activity measurement on semiconductor photocatalytic materials

ISO 27447 (2019)

Antibacterial activity measurement on semiconductor photocatalytic materials

Obligatory and additional conditions

Additional conditions: more than 60 human and animal viral strains including high pathogenic viral strain (BSL3)

ANTIVIRAL ACTIVITIES ACCORDING TO INNOVATIVE EXPERIMENTAL PROCEDURES ADAPTED TO CLIENTS' NEEDS

Innovative experimental procedures

- Viral inoculum (wet, dry, finger pad, microdroplets...)
- Organic and chemical interferences: organic dirt and biological liquids
- Experimental procedure for porous surfaces
- Experimental procedure for HITES "High-Touch Environmental Surface"
- Experimental procedure for objects and complex surfaces

Study of viral persistence on surfaces and textiles over time

- All types of materials, surfaces, textiles and objects
- Environmental conditions (temperature, relative humidity and light)
- Organic and chemical interferences: organic dirt and biological liquids
- Porous and non-porous surface
- Quantification of infectious titers and fluorescence imaging





R&D Department / Innovation

R&D department develops innovative experimental procedures in order to propose tests of virucidal activities miming high contamination levels representative of technical environments or associated with specific issues.

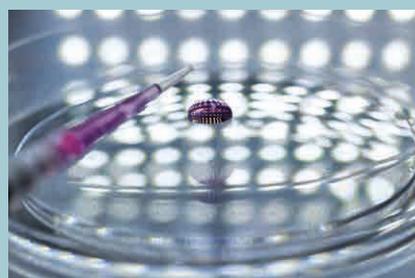
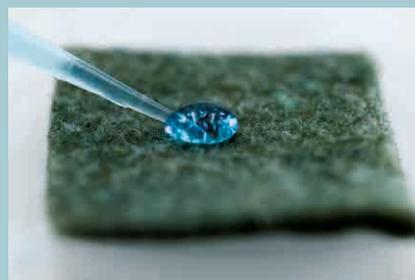
Complex interfering/soiled experimental condition for virucidal activity testing

biological fluids (saliva, respiratory secretions, blood, urine and faeces), chemical and organic pollutants, additional contamination (bacteria)...

Development of innovative procedures for the experimental contamination of surfaces, materials, and textiles

Viral transfer on surface through finger pad contact or microdroplets aerosol

Research and Development programs/collaborative projects with research laboratories lab and Research&Development centers



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