SANOSIL

DISINFECTANTS FOR LIFE

MADE IN SWITZERLAND

Sanosil Super 25

Disinfectant concentrate for use
in livestock farms

www.**sanosil**.com

Sanosil Super 25

Disinfectant concentrate for water and surface disinfection

...with depot effect.
Ideal for surfaces, water systems and appliances

- Highly effective against bacteria, viruses, yeasts, fungi and endospores*
- No risk of microbial resistance forming
- With catalytically enhanced hydrogen peroxide (decomposes into water and oxygen)
- Multifunctional use for water and surfaces
- Outstanding effect against biofilms and water germs in pipelines / drench systems
- Material and environmentally friendly
- Contains no cresols, QAC, PAA or adehydes
- Does not cause any unpleasant odours or change the taste of the water
- Shelf life of over 2 years
- High-quality product made in Switzerland

*depending on the concentration

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SANOSIL AG • CH-8634 Hombrechtikon • Switzerland
E-mail: service@sanosil.com
www.sanosil.com

Product description

Sanosil Super 25 is a **disinfectant concentrate** for use on livestock and fattening farms with **multifunctional application capabilities.** It can be used to disinfect water and drinking systems, surfaces in stables and equipment.

The active ingredient is boosted hydrogen peroxide, which decomposes into water and oxygen. This makes Sanosil Super 25 considerably more environmentally friendly than many other products used for such purposes.

As no active substances remain behind during **surface disinfection**, Super 25 can also be used in feeding instalations. This also avoids long waiting times until treated surfaces can be used again.

Good stability, outstanding effectiveness against biofilms and water germs along with high yields (effective even at low dosages) are key advantages for disinfecting **water and water systems.**

Sanosil Super 25: How it works

Hydrogen peroxide is used as the active ingredient. It is also stabilised and its disinfecting effect is catalytically enhanced several times over by adding a minimal amount of silver ions. **This process can increase the disinfection effect by up to 800%.**

After application, hydrogen peroxide completely decomposes into water and oxygen. The small amounts of silver remaining on the **surface** after the peroxide has broken down inhibit germ multiplication for up to 72 hours.

Bacterial deposits and biofilms are thus effectively removed from **water systems.** It also effectively prevents new ones from forming.

Sanosil Super 25

Overview

PRODUCT TYPE
Concentrated (hazardous substance)

SUITABILITY:
Surface disinfection
- Wiping
- Targeted spraying with a suitable device
- Hot and cold fogging application

Water disinfection
- Line and tank disinfection
- Drinking water disinfection *

SHELF LIFE
2 years

CONTAINS
50g/100g hydrogen peroxide, 0.05g/100g silver

* Where permitted by law

How it works

1. The oxygen ($^1O_2$/$^{\cdot}O_2$) released by the hydrogen peroxide attacks the cell walls of the microorganisms. Oxidation (cold combustion) destroys them quickly.

2. The effect is supported by silver ions, which enhance the effect of the peroxide in a catalytic process. They also block the metabolism (where applicable) and the ability of the germs to multiply.

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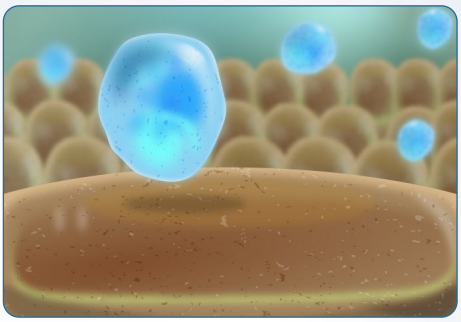
Water disinfection with Sanosil Super 25: Effective against biofilms

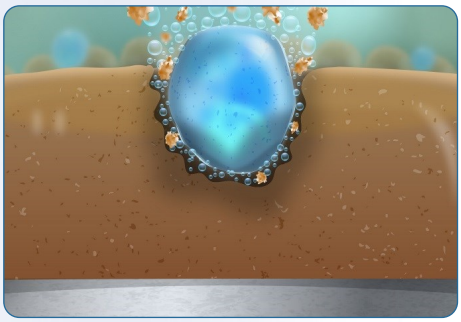
Biofilms have a relatively dense surface. As a result, a number of conventionally used products only have an effect on the surfaces of the biofilm. A large part of their potential "dissipates" with virtually no effect.

Sanosil disinfectants include a special stabilising feature. This delays the breakdown of the hydrogen peroxide, while allowing the active ingredient to penetrate deep into the mucus structures. The bubbles of active oxygen which subsequently form inside the biofilm not only efficiently control the germs they contain, but also increase the volume inside the mucus structures.

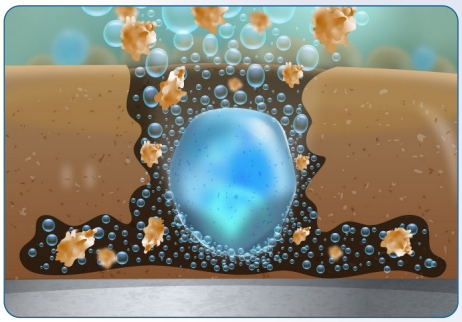
This causes the biofilm layers to burst open and subsequently peel off, which ensures sustainable results.



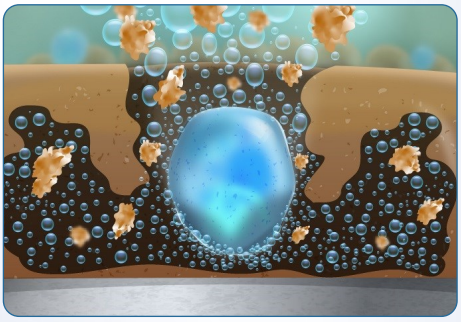
1. Biofilm surface: slime structure protects microorganisms against environmental influences.



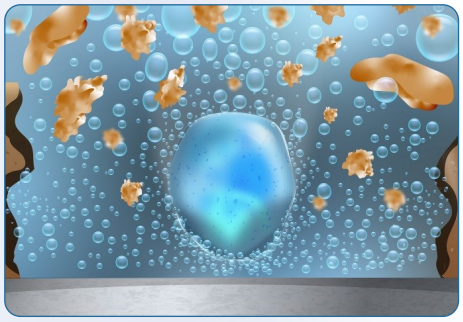
2. Sanosil penetrates the biofilm matrix. Stabilisation prevents premature breakdown.



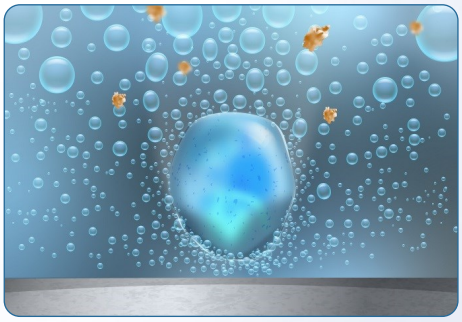
3. The hydrogen peroxide, which is catalytically enhanced by silver ions, produces large amounts of oxidising oxygen (ROS).



4. The oxygen bubbles formed increase the volume.



5. The mucus structures break apart and peel off.



6. Germs that were previously protected now float without any protection in the water and are eliminated through oxidation.

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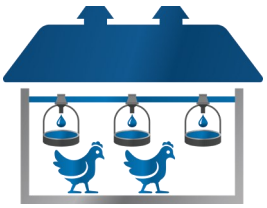
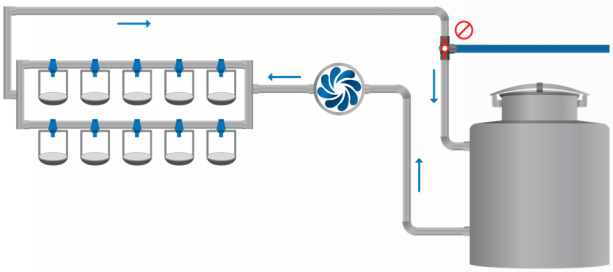
Water system & drinking system tank disinfection 1



Regular cleaning and disinfection of the water system and drinking tank installations removes and prevents the formation of biofilms and the growth of wet germs. A general distinction is made between:

- System cleaning: removal of deposits due to liquid food residues and limescale
- Shock disinfection: removal of biofilms and sources of bacteria
- Maintenance disinfection: prevention of germ re-colonisation and germ growth
- Water treatment: killing germs in contaminated water sources

1. CIP cleaning (as required)



Water and watering systems can form hard or resinous coatings due to lime or oily vitamin solutions added to the water. These encrustations promote bacterial growth. They can be easily removed by applying acid or lye.

For sticky grease/oil deposits = 3% sodium hydroxide solution (NaOH)

For limescale deposits: = 10% amidosulphonic acid (H_3NSO_3) or citric acid ($C_6H_8O_7$)

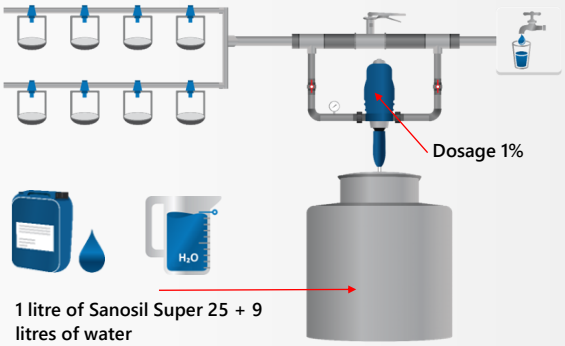
The cleaning solution is mixed and added to the watering system. Circulate the mixture using a pump, if possible. After the exposure time, thoroughly rinse out the cleaning solution.

2. Shock disinfection

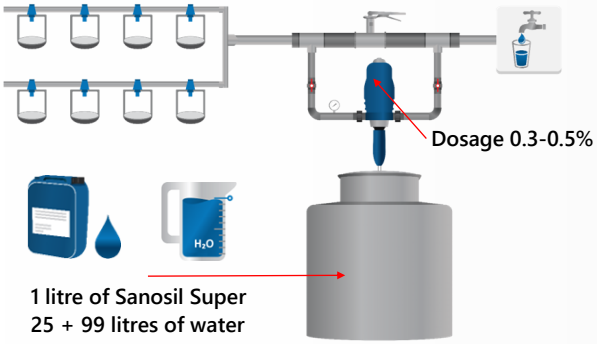
Shock disinfection dissolves and destroys biofilms/bacterial slime and eliminates protein contamination from the pipes. Ideal as a pre-treatment for continuous disinfection or acute microbiological problems.

The dosage is 1ml of Super 25 per litre of water (=1000 ppm) and is ideally added directly to the water using a dosing pump. Alternatively: mix a 1:9 solution with water and add this to the line content using a proportional dosing device (setting 1%). The water system is to be completely filled with disinfectant solution.

The ideal exposure time is <4 hours. Then flush the lines.



3. Maintenance disinfection



Continuously * adding a small dose of Sanosil Super 25 to the drinking water prevents a renewed build-up of bacteria.

The usual dosage is approximately 0.03–0.05 ml per litre of water (30–50 ppm). The final concentration as measured at the sampling point is relevant. Mix a 1:99 stock solution and set the dosing pump to 0.3–0.5 %. The stock solution must be used up within approximately 48 hours

* Treating drinking water with products containing hydrogen peroxide, such as Sanosil, requires the appropriate approvals, which are not available for all countries. Without the necessary approval, Sanosil products may only be used via discontinuous application (shock disinfection) / treating process water. Please contact the competent authority to ensure legally compliant use of the respective products.

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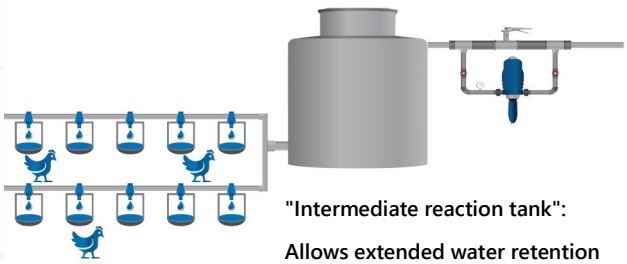
Water system & drinking water tank disinfection 2

4. Raw water treatment



"Intermediate reaction tank":

Allows extended water retention time for at least 4 hours.

If the raw water does not qualify as drinking water from a microbiological point of view, it can be sterilised* by adding Sanosil Super 25.

The procedure is identical to Pt. 3, apart from the fact that a tank is set up as a reaction container between the dosing point and the drinking tank. The dosage of Sanosil is increased to 0.1ml/l = 100 ppm depending on the raw water quality.

The final concentration at the sampling point should again be approximately

* Treating drinking water with products containing hydrogen peroxide, such as Sanosil, requires the appropriate approvals, which are not available for all countries. Without the necessary approval, Sanosil products may only be used via discontinuous application (shock disinfection) / treating process water. Please contact the competent authority to ensure legally compliant use of the respective products.

5. Water conservation

Adding Sanosil Super 25 preserves * water in tanks (e.g. in the field on mobile poultry farms) and keeps it fresh.

Dosage: 0.08ml of Sanosil Super 25 per litre of water (drinking water quality, clean tank) will keep the tank contents clean and free of germs for 7–14 days.

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0.08 ml Sanosil Super 25 per litre of water

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Surface disinfection with Sanosil Super 25

Dilution instructions and precautionary measures

Sanosil Super 25

Sanosil Super 25 can be used to disinfect surfaces and rooms with a range of application devices. Since the product is highly concentrated, it must first be diluted to the required application concentration.

Please observe the following safety precautions:

Hint 1: protective equipment:

Before using Sanosil Super 25, read and follow the instructions on handling, storage and transport in the safety data sheet.

Sanosil Super 25 is a highly concentrated disinfectant and can cause skin irritation and severe eye damage in the concentrated state. **Always wear suitable skin and eye protection** (protective gloves / safety goggles).

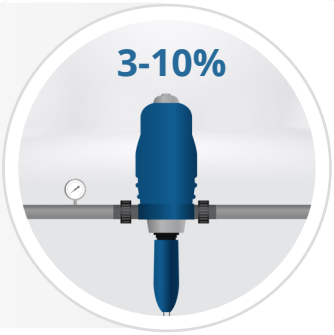
Hint 2: Use of an automatic dosing system for disinfectant solutions

Mix 1 part of **Sanosil Super 25** with **9–32 parts of water** depending on requirements.

This produces a **3–10% solution.**

Ideally, we recommend that the solution be prepared using an automatic proportional dosing system.

Use up the fresh Sanosil disinfectant solution as quickly as possible (within 24 hours).



Important instructions for safely handling Sanosil Super 25

Absorb any spilled Sanosil Super 25 using a synthetic cloth and immediately rinse the cloth thoroughly with water.
Never use paper towels or cotton cloths for wiping up, since they can catch fire. Alternatively, rinse thoroughly with water.
Do not mix with other products. Once dispensed, do not pour Sanosil Super 25 back into the container.

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Surface disinfection:

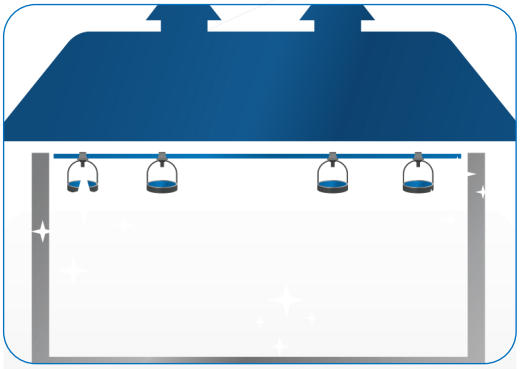
Spray method

Surfaces are most effectively disinfected using a 10% Sanosil Super 25 solution and a motorised plant sprayer. To achieve an optimum effect, all surfaces to be disinfected must first be thoroughly washed and dried. The effectiveness of a freshly prepared 10% solution of Sanosil Super 25 is as follows:

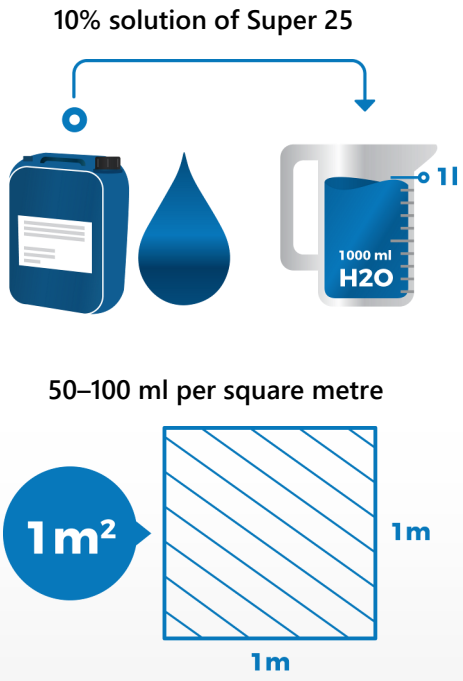
	Bacteria	Yeast	Fungi	Enveloped viruses	Non-enveloped viruses	Spores
10%	5 min	5 min	15 min	1 min	30 min	60 min

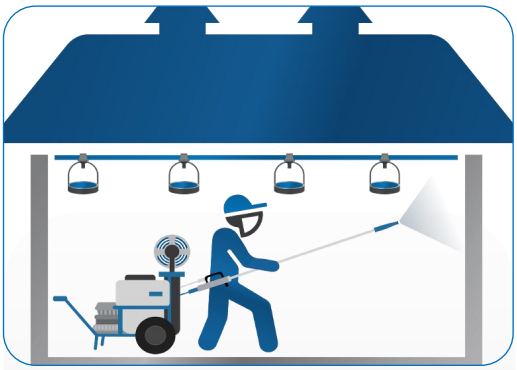
Application using a low-pressure spray pump:

1. Thoroughly wash all surfaces using a high-pressure cleaner. There must not be any visible dirt left.



2. Allow the cleaned surfaces to dry to prevent unwanted dilution of the disinfectant solution.





3. Mix a 10% Sanosil Super 25 solution and pour into the sprayer. Spray it onto the surfaces. Dosage: approximately 50–100 ml per m^2. Always wear an ABEK P3 protective mask to protect yourself against irritating aerosols.

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Surface & room disinfection:

Thermal fogging process

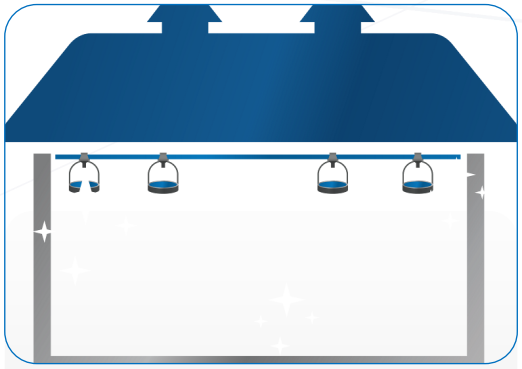
Thermal fogging disinfection offers the advantages of complete coverage of all surfaces as well as simple and convenient application. Airborne germs are also encapsulated and eliminated.

The disadvantage of thermal fogging is the low penetration depth of the disinfection fog. Pre-cleaning is therefore essential. Even a thin layer of dust can severely compromise the fog's disinfection effect and must therefore be removed completely.

Pulsfog K 30 BIO
Pulsfog, Überlingen, Germany

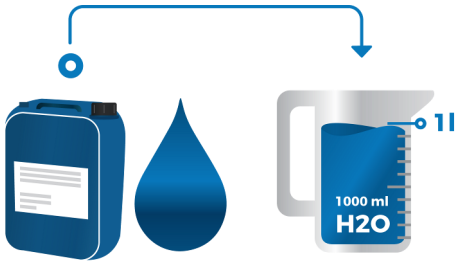
Application with thermal fogging device

1. Thoroughly wash all surfaces using a high-pressure cleaner. There must not be any visible dirt left.



2. Allow the cleaned surfaces to dry to prevent unwanted dilution of the disinfectant solution.

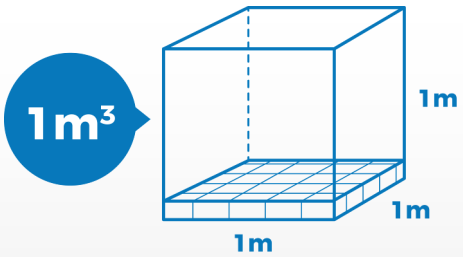
15% solution of Super 25



3. Mix a 15% Sanosil Super 25 solution and pour it into the fogger together with some fogging agent. Close all doors and windows and fill the room with fog. Dosage: approximately 10–15 ml solution per m^3.

Always wear an ABEK P3 protective mask to protect yourself against irritating aerosols. Allow the fog to take effect (do not enter the room for at least 2 hours).

10–15 ml Sanosil solution 15% (+0.5ml fogging agent) per m^3



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APPENDIX

Dosage table for Sanosil Super 25

Attention: If diluting Sanosil Super 25 with tap water, use up the prepared solution quickly.

Dosage	Quantity / m^2	Application area
1 part Sanosil Super 25, 32 parts water (corresponds to a 3% solution)	30-50 ml	Surfaces with average organic load (e.g. food processing, etc.)
1 part Sanosil Super 25 to 15 parts of water (corresponds to a 6% solution)	30-50 ml	More severely contaminated surfaces with higher organic loads
1 part Sanosil Super 25, 9 parts water (corresponds to a 10% solution)	30-50 ml	More severely contaminated surfaces with higher organic loads, combating viruses and endospores

Use biocides with caution. Always read the label and product information before use.
Our application notes, both in written and verbal form, are based on extensive testing. We provide advice to the best of our current knowledge, but without any obligation insofar as the application and storage are beyond our direct control. Product descriptions or information about the properties of the preparations do not contain any statements concerning liability for any damage.

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