

SANIFILTER

THE SANIFILTER ANTIMICROBIAL TREATMENT

A revolutionary product that leads this new nanotechnology era, the SANIFILTER Treatment was created by a group of scientists to meet the growing needs for better healthiness and elimination of pathogenic micro-organisms right from the source.

The SANIFILTER makes it possible to inhibit and eliminate:

BACTERIA

VIRUSES

FUNGOUS: yeast and mould

MICRO PARASITES

NANOTECHNOLOGY

Since the Middle Ages, Silver has been known for its antimicrobial properties

A nano is 1.000.000 times smaller than a millimetre.

The SANIFILTER Treatment made of silver crystals which have an average size of 20-50 nm, makes it possible to have an immediate and effective action!

The smaller the silver crystal, the better its ionic availability is. Thus, as it is released, the silver ion binds to the deceiving micro-organism's DNA or RNA to inhibit its growth and eliminate it.

Another factor which determines its effectiveness is that the nanocrystals cover a greater surface than regular silver crystals.

WHY USE A FILTER TREATED WITH THE SANIFILTER TREATMENT?

The filters are the perfect place for micro-organisms to reproduce. Their ideal colonization environment being dark and hot.

Vacuum cleaner waste and the dust retained by the filters which is made up of dead skin, hair, food and soil, are an ideal source for nutrients.

Bacteria reproduce at a phenomenal rate and are thrown back into the air as the vacuum cleaner is activated.

The SANIFILTER Treatment has proved to be effective in inhibiting and eliminating the following micro-organisms:

- ◆ Staphylococcus aureus
- ◆ Salmonella
- ◆ Shigella
- ◆ Aspergillus Niger
- ◆ Dust mites
- ◆ Escherichia Coli
- ◆ Listeria Monocytogenes
- ◆ Bacillus cereus
- ◆ Candida albicans
- ◆ Avian influenza
- ◆ Klebsiella pneumonia
- ◆ Pseudomonas aeruginosa
- ◆ Clostridium difficile
- ◆ and many more

DID YOU KNOW THAT.....

After 10 hours, a bacterium can reproduce more than one million times!

EFFICIENCY LEVEL

Standardized analyses are carried out in order to determine the microbiological activity through time.

| AATCC100 Method Staphylococcus aureus MRSA | | Colony Count of bacteria | |
|---|-----|--------------------------|----------------------|
| Time scale | | Control | SANIFILTER Treatment |
| time "0" (1 min) | UFC | 4100 | <100 |
| 30 min | UFC | 3200 | <100 |
| 1 H | UFC | 4300 | <100 |
| 6 H | UFC | 73 000 | <100 |
| 24 H | UFC | >560 000 | <100 |
| Reduction percentage | % | 0 | >99.99 |

THE SANIFILTER TREATMENT PROVIDES INCOMPARABLE SPEED OF ACTION!

HOW TO COMPARE ANTI-MICROBIAL AGENTS...

Is the suggested product bactericide or bacteriostatic?

One eliminates the micro-organism, the other prevents it from growing therefore it remains present. **The SANIFILTER Treatment has both effects.**

Is it effective enough to eliminate all the micro-organisms?

Antibiotic-type products are made suitable for certain bacteria. Certain antimicrobial agents of chemical origin are effective only on one micro-organism group (ex: bacteria) and not on others (ex: fungus). **The SANIFILTER Treatment works thoroughly and is effective on all micro-organisms.**

Does the product have a long lasting effect?

Certain products evaporate allowing only temporary protection against micro-organisms. **The SANIFILTER Treatment is effective for the whole life of the filter.**

When are the micro-organisms eliminated?

The **SANIFILTER Treatment** has shown us that it eliminates bacteria on "contact". No other tested technology has allowed us to obtain such results.

What is the toxicity hazard of an antimicrobial agent?

Here are the verifications to be carried out: exposure risk during application, volatile residue after application (irritating agent), environmental disposal. **The SANIFILTER Treatment does not contain any formaldehyde or chlorophenol.** It's a water based mixture!

How do I apply it?

This technology is really flexible and easy to apply to all fibers and appliances. It is adaptable to many manufacture processes.

Cost management...

The **SANIFILTER Treatment** demonstrates a higher efficiency than other silver technologies. The turnkey service assures a constant rate without surprises!

AFTER EVALUATING ALL TECHNOLOGIES, SANIFILTER SELECTED THE UP TO DATE ANTIMICROBIAL AUXILIARY.

CHART COMPARING VARIOUS ANTIMICROBIAL

| | The SANIFILTER Treatment | Product A chlorophenol | Product B Silver zeolite | Product C Silver fibre laminate |
|-----------------|---|--|--|--|
| Effectiveness | Very fast Complete inhibition in 1 hour | Very fast Variable results depending on product. | Slow Results show inhibition in 4 hours. | Slow Results show inhibition in 4 hours. |
| Micro-organisms | Only one solution inhibits bacteria, virus, fungous and micro parasites. | The products are adapted as a species, therefore the chemical inventory increases. | Only one solution inhibits bacteria, virus, fungous. No results known on micro parasites. | Inhibits bacteria, viruses, fungous. No results known on micro parasites. |
| Toxicity Data | Non toxic. Water-based, approved by Health Canada, Class II in wound care. | Acute toxicity | Variable depending on the chemical base used. | N/A Solid product. |
| Application | Easy On all textiles and papers. Adapted to the majority of equipments. | Easy On all textiles and papers. | Easy Verified compatibility with other products. | Ask for product reengineering. |
| Inventory | A product for all. | A product for each micro-organism concerned. Inventory increase. | A product for all. | Inventory split. |