

# People before mosquitoes

What is the Freezanz method?

Our mission is to produce safe and effective anti-mosquito misting systems able to control and limit the number of pests in the required area.

Thanks to its micro-misting technology, Freezanz automatic systems use 100 times less product than the traditional disinfestation methods.

Our systems release just a few milliliters of product each day, during the night or when required by the customer. For this reason, our plants are ideal for public and crowded places.

Atmospheric agents affect the effectiveness of traditional disinfestation methods; these kinds of problems are considerably reduced with the Freezanz system because the automatic and daily management of the misting cycles prevents the efficacy of the product from being compromised by rain or irrigation systems.

A Freezanz plant is an investment that allows you and your beloved ones to enjoy your garden

# Industry leader for over 25 years

over twenty-five years of experience in protection against pests. Numerous laboratory tests carried out in collaboration with specialized companies have allowed us to realize a 100% Made in Italy patented technology.

30.000

Satisfied customers all over Italy

162

Installers in Italy

418

Stores in Italy alone

Countries in which we operate

1997

Industry leaders ever since

Over **30.000 customers in Italy**, ranging from the small backyard to the 5-star resort. Our systems are installed in the largest and most prestigious accommodation facilities in Italy, a hallmark of the quality of our products.



# **Excellence** recognizes Excellence

The satisfaction of our clients is the result of the continuous effort to do better and better

"I have a Freezanz System installed since this June in my vacation house in Forte dei Marmi, and it has been effective until now. We passed wonderful evenings in our garden without the nightmare of mosquitoes".

Famiglia Pandini











a pars hote

Oriental hoter













Marm isb





"We spent years trying all possible solutions to eliminate the problem of mosquitoes from the garden...

Then Freezanz arrived and, in half a day after installation, it definitively solved the problem! Now it's a whole new life!"

Villa Franceschi Mira, Venice







"Freezanz changed my life. I am once again the owner of my garden and I can live in the outdoor space together with family and friends without worrying about mosquitoes, while before I was invaded by swarms of tiger mosquitoes. I would say that the Freezanz staff really deserves special praise. I really want to thank you for your competence, professionalism and courtesy".

Gaetano Esposito



Qosha ristorante - Bar,

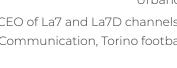
Watch the video references of our customers:

# "Freezanz changed my life!"

Urbano Cairo CEO of La7 and La7D channels, Cairo Communication, Torino football club











"it's amazing that there's not even a mosquito in the garden" Piercarlo









"the Freezanz system works very well" Daiwa - Hotel Principe

"finally free from mosquitoes with Freezanz! Nino Mosca, il Bottaccio







Soutique hote/ &

palace

Joan Milan

Beschi Mira - Venico

and del barone

"It's extraordinary! Since this year, no customer has complained about mosquitoes, while in the past it was a real problem. We can't believe it, but Freezanz really saved us"

# In the world there are around three thousand species of mosquito

The **Culex** is a sedentary type of mosquito; in fact, they do not move too much from the place where they were born and lay eggs. This is the common type of mosquito in Italy (Culex pipiens). Their sting is painful, and they are more active during dusk.

The Anopheles mosquito, sadly known for its capacity to spread malaria, is a sedentary type of mosquito; they prefer open spaces where they can easily find their natural habitat made of puddles and water stagnations. They are mainly active during the nighttime, from dusk until dawn.

*In Italy there are around* 60 species, mainly represented by 3 major families: Culex, Anopheles and Aedes.

> The Aedes mosquito is the most fearsome type. Are included in this species the infamous tiger mosquito (Aedes albopictus) and the newest Korean mosquito (Aedes koreicus). They are particularly aggressive and active throughout the day, with greater intensification during dusk and dawn. Furthermore, they can travel long distances and their sting is really painful.



of mosquito has undergone an incredible worldwide expansion due to human activities like the transport of goods, in particular the trade of tires with the East. For this reason, the tiger mosquito is

included in the first 100 most invasive species of the world.



# the first indications of the presence of mosquitoes on Earth date back to the Jurassic

in all this time, they have surely honed their skills in the search for "food" with a particularity...

Mosquitoes identify their "target" (a.k.a. humans) in different ways: **visually**, by observing movements in the surrounding area; by **detecting infrared radiations** emanated by warm bodies; **through chemical signals** - Mosquitoes are particularly attracted by carbon dioxide and lactic acid - that they can perceive even at a distance of more than 30 meters.

Certain species of mosquito are considered sedentary because they don't move far away from the place of spawning, while others can fly distances up to 10 km.

Only female mosquitoes sting and suck blood because blood contains those proteins that are necessary for the right growth of the eggs. Male mosquitoes, as a matter of fact, don't sting, but they feed on plant substances. We can say that "human being", compared to other animal species, surely is a "tasty morsel" for mosquitoes: our body is not completely covered in thick hair and our skin - that is thinner than the skin of other animals - is full of close to hand capillaries, or better to say "close to trunk".

**Female mosquitoes**, unlike the male ones, are equipped with an appropriate mouthpart with a "trunk" and some serrated needles useful to better enter the tissues and tear them: by doing so, more blood flows in that zone. Female mosquitoes insert their stinger in the skin like the needle of a syringe in search of a capillary to drain.

a mosquito only needs a few milligrams of blood to have a sufficient quantity of nutrients necessary to lay eggs. Usually they can get this amount of blood by stinging just once; if annoyed or driven away, they can try multiple times until they achieve the desired quantity. Nearly always they succeed in storing the blood with just one sting.

After having stung and stored a sufficient quantity of blood, the mosquito will be "full" until the next fecundation, which usually happens after 4-5 days.



Therefore, given that the average lifetime of a female mosquito is approximately 6-8 weeks, she will have the necessity to "draw" our blood only from 8-9 to 12-14 times, and not all during the same night.

For this reason, the continuous buzzing and pricking that we feel during the night are due to the presence of multiple individuals; these will move away once their hunger appeases, and they will start pending the eggs development while looking for a suitable place for spawning.

Mosquitoes are much more than a simple summer annoyance.

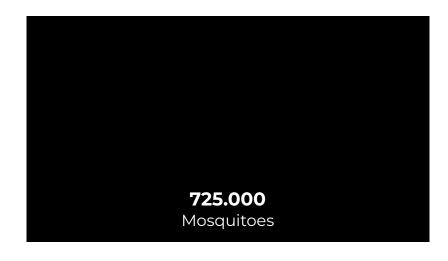
Indeed, they are carriers of some of the deadliest illnesses for human beings, and they are the number one danger in the fight against infectious diseases.

Diseases **transmitted from mosquitoes to humans** are the cause of hundreds of thousands of deaths worldwide; for this reason, mosquitoes are considered the deadliest animal in the world.

There are around 3000 species of mosquito in the world, but only 3 of them are responsible for the diffusion of diseases that affect human beings: the **Anopheles mosquito** A is the only specie responsible for the transmission of malaria; **Culex mosquitoes** can transmit **encephalitis**, **filariasis** and **Nile virus**. **Aedes mosquitoes**, the family of tiger mosquitoes, can transmit **yellow fever**, **dengue**, **chikungunya** and **encefalite**.

Even though in Italy and in Europe the risk of contracting these diseases that can also have lethal consequences **is really limited**, however; **not lower our guard** and, when it's possible, we should implement all necessary **measures to prevent the spread and proliferation of mosquitoes**.

_ 10 Shark	<b>World's</b>	
_ 10 Wolf	<b>Deadliest</b>	
100 Lion	Animals	
100 Elephant	Number of people killed by animals per year	
500 Hippopo	tamus	
10	00 Crocodile	
	2000 Tenia	
	10.000 Freshwater snall	
	10.000 Assasin bug	
	10.000 Tsetse fly	
	25.000 Dogs	
	50.000 Snake	
<b>475.000</b> Humans		



# why do they make us scratch?

Mosquito bites are so irritating and itchy that could definetely ruin a nice outdoor evening with friends or a deserved moment of relaxation in your garden.

As previously mentioned, when a mosquito settles on your skin looking for blood, it inserts its serrated stinger and a little trunk in the epidermis in search of capillaries.

At the same time, unfortunately, mosquitoes inject their saliva, which contains enzymes that have a double function: they **anesthetize** the zone (in other words, to not make us feel the pain) and keep our blood fluid, because the coagulation would prevent the mosquito from sucking it.

the quantity
of released
histamine can
vary from subject
to subject; for
this reason, there
are people more
and others less
sensitive to
mosquito
stings.

In general, the release of instamine has as consequence that the area around the mosquito sting increases in volume (swelling), turns red (reddening) and starts itching.

The affected part of the skin starts itching, reddening and swelling and this is due to these enzymes.

Obviously, these enzymes are "stranger" elements that represent a threat to our organism. Consequently, mast cells release histamine, a natural substance that thickens around the area affected by the sting and cause a dilatation of blood vessels.





# one trivial mosquito sting can trigger an allergic reaction? the answer is yes!

# The Skeeter syndrome

This syndrome mostly affects children, but even adult persons, who can develop severe allergic reactions to mosquito stings. This reaction is caused by some types of allergenic polypeptides contained in the saliva of mosquitoes. After a few hours, the affected people develop an inflammation around the mosquito sting and an increase in body temperature.

**Some people can develop hypersensitivity to mosquito** stings that can cause even quite serious consequences. Once inserted the trunk in the skin, the mosquito injects a certain quantity of saliva that contains substances that have a double function: **anesthetizing** function, to not make us feel the pain, and **anticoagulant** function, to keep the blood fluid and suck it more easily.

These substances are responsible for the wheals and the irritating itching that triggers immediately after in the zone. Normally, the consequences of mosquito stings are limited to this kind of ailment. However, in the case of many stings, certain people can have different reactions, even an allergic reaction to these substances and they can have even much worse symptoms than the simple wheal and itch

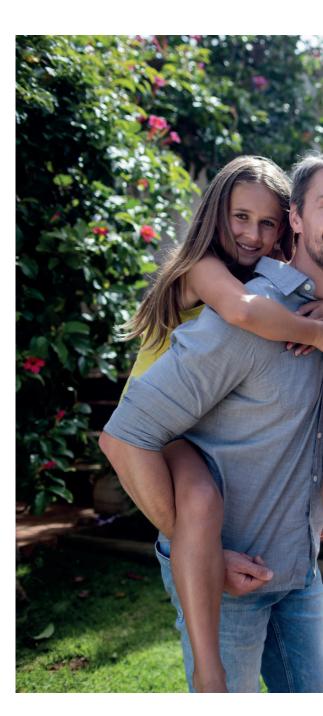
# **Advantages** for the customer

# Tailor made installations made by qualified technicians

We care about our customers. We pay particular attention to our customer's needs, from the first contact until the inspection of the technician who evaluates the peculiarities of the area and suggests the ideal plant to install and the products to use.

- **Quick and persistent effectiveness over time** with just a few minutes of misting per day.
- Use of micro doses of product 100% based on essential oils with low environmental impact.
- Waterproof: the effect of the product does not vanish with rain or irrigation.
- Scheduled assistance and maintenance by our qualified technicians to guarantee the maximum efficiency and protection.
- · Customizable solutions: from the small garden to the large park.
- **Possibility of using a third product** for aromatherapy or repel another type of unwelcome animal.
- **Dedicated WebApp** for systems with *Connect technology*.
- Tablet with user-friendly interface for machine set-up and monitoring of work phases\*.
- #MyFreezanz online management server to have a technician from remote always available.
- Hose break alarm function to prevent accidental spillage of product into the environment.





A professional Freezanz misting system almost has no unaesthetic visual impact, thanks to the intervention of qualified and specialized personnel, that will develop the system on the perimeter of the area to be protected, using hedges, fences and railings as supports, without affecting the garden, the flooring or pre-existing buildings.

zero unaesthetic visual impact



Protect your investment with our assistance and e maintenance service

With our assistance and maintenance service, you will always benefit from having at your disposal a specialized technician that will assist you and your plant. He will gauarantee accuracy in the search for the right product to never remain without protection, accurate periodical controls of the system, substitution of wear components, cleaning and set aside of the plant in winter period.

# RESEARCH / DEVELOPMENT & INNOVATION

# **Smart engineering**

The technological innovation of our systems is the result of constant research for new techniques and applications from our team of engineers, all this guarantees the customer the most innovative and performing solutions.

# **Dynamic and versatile programming**

Freezanz systems are dynamic and versatile because you can schedule the misting cycles according to every single need of the customer and the garden.

# A wide range of products

We have created a wide range of products and solutions that can protect against any type of insect like mosquitoes, wasps, flies, bugs and many others. We have also created solutions to remove annoying animals such as rats, pigeons, reptiles and much more...

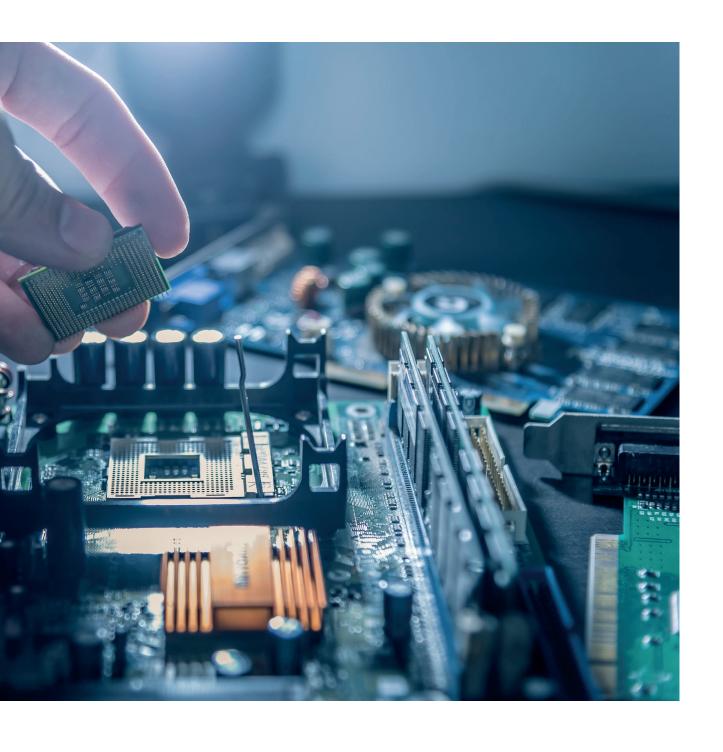
### **Know How**

We invested and keep investing time and resources in technical and commercial preparation of our staff, creating a winning combination of professionals and business "know-how".

# **Territorial coverage**

We have a widespread network of employees all over Italy able to meet the needs of customers from North to South. Covering the whole territory, we can respond promptly to any request from all over Italy.





# How do we protect your garden?

# customized solutions for every need of your garden!

A system of pipes and nozzles surrounding the area is the most effective and focused solution to create a perimeter barrier that prevents mosquitoes from entering the area and that alienates those already present. In this way, you can definitely solve your problem with mosquitoes and other pests.

You only need to have a socket, a water supply network connection and internet access; for all the other specific aspects, our technical experts will assess the best solution for your garden and will provide the installation of the central unit and the external system. Freezanz uses specific pipes in different colours and an infinity of components to make the most suitable and less invasive solution.

Thanks to the small size of the pipes, we can use perimeter walls, fences, hedges, canals and already existing furrows without masonry works or excavations.





- We install the central unit in an indoor place with an electrical outlet, connection to the water network and Wi-Fi.
- 2. We place the piping and nozzles along the perimeter and fill the tanks with the required products.
- We program the machine by customizing it based on the characteristics of your garden and your needs.
   Then we put the plant into operation.
- 4. DONE! Now your garden has 24/7 protection from mosquitoes.



Freezanz professional systems use a quantity of product much lower than traditional methods, guaranteeing better results. This is possible because our technology creates the mixture of water and product immediately before dispensing it. In this way, you avoid degradation problems

that occur with traditional disinfestation methods that need to transport a considerable amount of already mixed product in the required area.



# The **technology** considered future for the others for us is already past!

You only need to have a socket, a water supply network connection and internet access; for all the other specific aspects, our technical experts will assess the best solution for your garden and will provide the installation of the central unit and the external system.

With our Connect technology, you can monitor your Freezanz System at any moment, even from miles away, and verify its operations, the quantity of residual product, the timetables of programmed cycles and start or stop a nebulization cycle. In addition, in case of malfunction, our technicians will be able to intervene immediately for better efficiency of the system, leaving you to keep enjoying your garden.





Apple iOS | Android | Windows phone



	Start	Garden	Park	Garden 3P	Park 3P	Custom
MyFreezanz Server	•	•	•	•	•	•
WiFi / Ethernet Connectivity	•	•	•	•	•	•
IntellCycle 2.0 Technology	•	•	•	•	•	•
InstantMix Technology	•	•	•	•	•	•
iPipeClean Technology (pipe washing)	•	•	•	•	•	•
2 product management	•	•	•	•	•	•
3 product management				•	•	•
4 product management						•
Independent double zone management			•		•	•
Independent triple zone management						•
Astronomical cycle	•	•	•	•	•	•
Exterior multicolour led	•	•	•	•	•	•
Electronic product level measurement	•	•	•	•	•	•
Product reserve alarm	•	•	•	•	•	•
Pipe break alarm	•	•	•	•	•	•
Inlet water shortage alarm	•	•	•	•	•	•
Manageable from Freezanz tablet 8'*	•	•	•	•	•	•
Remote control	•	•	•	•	•	•
Up to 1.500 sqm of protection	•	•	•	•	•	•
Up to 5.000 sqm of protection		•	•	•	•	•
Up to 10.000 sqm of protection			•	•	•	•
Up to 15.000 sqm of protection						•

<sup>\*</sup>not included, tablet available only as accessory





	Code
Copertura zincata	F01AC1044
Copertura simil corten	F01AC1045



The Freezanz tablet allows programming on site even if there is no wifi.

	Code
ablet 8' Freezanz	F01AC1056

Why choose Freezanz Connect systems?



#### 2.4 GHz WiFi Connectivity

Connection capacity in all conditions



#### **MyFreezanz Server**

A remote technician always by your side



#### **Versatile and dynamic programming**

The planning of our plants can be carried out according to every need



#### **InstantMix**

Miscinstant and perfect mixing



#### **Astronomical cycle**

**Patented technology** able to detect the exact sunset time in order to intervene against swarms phenomena



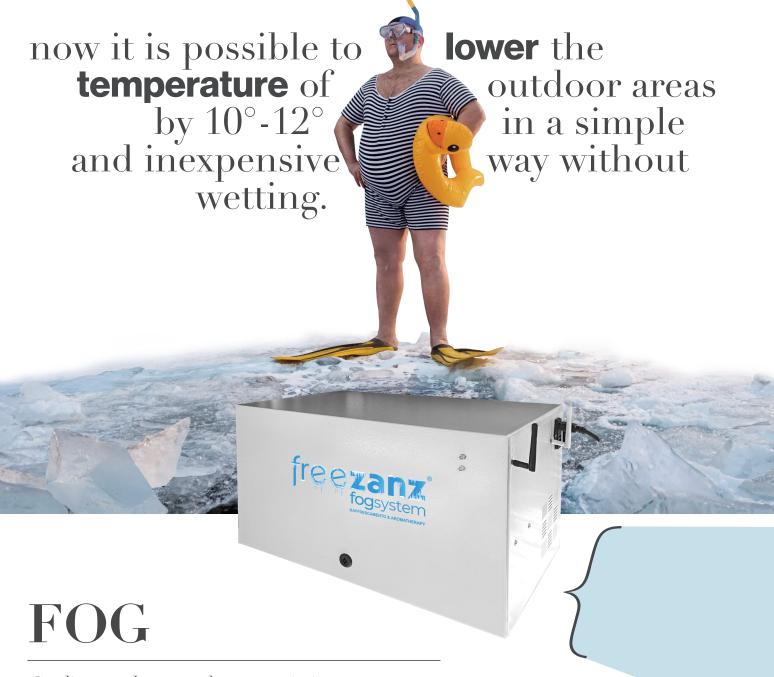
#### **Multi-zone management**

In order to protect different areas with schedules and ad hoc setup



#### Multi-product management

In order to repel other unwanted guests besides mosquitoes



Cooling and aromatherapy misting system

Freezanz Fog is a cooling misting system that, in a simple and inexpensive way, will lower the temperature of outdoor areas up to 10° degrees.

This device generates an ultra-thin mist of millions of droplets with an average size of less than 10 microns by pressurizing the water with a high-pressure pump and releasing the nebulization through the nozzles.

This type of cooling system finds its main application in all those outdoor and indoor environments where it is needed to lower the temperature and offer optimal comfort to the people who stay there.

The outdoor environment of cafes, restaurants, pizzerias, swimming pools and many other public places can benefit from this technology, as well as hotels, farmhouses, campsites and every type of accommodation facility that can offer their guests a garden with pleasant temperatures.

# Industrial uses of evaporative cooling

# WINE CELLARS

Misting systems give enormous advantages to maintain the right level of humidity and temperature inside wine cellars.

# DUST SUPPRESSION

The misting systems represent an extremely effective solution in the suppression and abatement of suspended dust and in air filtration.

# ODOR CONTROL

The misting systems are ideal instruments for the treatment and control of odours in large environments, especially in the industrial and commercial sector.



Animals, just like humans, are more productive in a comfortable environment: the misting reduces heat stress and increases productivity.

Why choose the Freezanz Fog system?



#### Instant cooling

The water evaporation process creates a cool and comfortable microclimate.



#### **Aromatherapy**

Spray charming fragrances and take full advantage of olfactory marketing.



## WiFi/Ethernet connectivity

Cafés and restaurant outdoor spaces.



#### **Multizone Management**

It will let you cover more zones



#### Easy to use

Simple and intuitive usage.

#### **Attention to waste**

Our system limits water consumption to the minimum necessary.



# Product line based on natural essential oils







Result of scientific research that combines plant extracts and innovation.

reezanz Natural Line products are the result of scientific research and careful observation of nature. The formula of the products comes from the synergies of plants and their ability to combine together.

The researcher selects plants based on the complicity between them and carries out scientific tests to increase naturally laboratory performances and create a product to use in a specific environment depending on the insect and animal to repel.

The natural formula has no negative influence on the ecosystem and the environment in which we normally live.

Freezanz Naturiz line products are used with balanced diffusion systems because they need to be used in extremely low quantities in continuous cycles that create an oasis of relaxation in the environment without damaging the habitat.







# NATURALGREEN & GREEN+ NATURALBLU & BLU+

Natural products with plant extracts that releases into the air a pleasant and long-lasting fragrance.





	Code
Natural Green 1lt	8055323804011
Natural Green+ 2lt	8055323804035
Natural Green+ 5lt	8055323804059
Natural Green+ <b>25lt</b>	8055323804073
Natural Blu <b>1lt</b>	8055323804028
Natural Blu+ <b>2lt</b>	8055323804042
Natural Blu+ <b>5lt</b>	8055323804066
Natural Blu+ <b>25lt</b>	8055323804080



# **NATURIZPICCIONE**

Essential oils mix that releases an odor that results unpleasant for pigeons, making them gradually migrate without harm.

	Code
Bottle 1lt	8055323808965
Tank <b>5lt</b>	8055323809177
Tank <b>25lt</b>	8055323809030



# NATURIZRETTILE

Natural product that creates a physical film-forming barrier keeps reptiles away. Ideal for agricultural areas, farms and breeding.

	Code
Bottle 1lt	8055323808835
Tank <b>5lt</b>	8055323809092
Tank <b>25lt</b>	8055323809047



# NATURIZ**RAT..TUS**

Natural product which creates a film-forming barrier to keep mice away.

	Code
Bottle 1lt	8055323808804
Tank <b>5lt</b>	8055323809160
Tank <b>25lt</b>	8055323809009



### NATURIZCANE&GATTO

Natural product creates a physical film-forming barrier that keeps dogs and cats away from where they are not wanted.

	Code
Bottle 1lt	8055323808811
Tank <b>25lt</b>	8055323809054



# **NATURIZCINGHIALE**

Natural product that keeps boars, ungulates and wild animals away from gardens and crops.

	Code
Bottle 1lt	8055323808996



### **NATURIZTALPA**

Natural oil-gel product that creates an irritating physical barrier to moles. It does not effect any type of cultivation.

	Code
Bottle <b>1lt</b>	8055323808828



# **NATURIZFORMIKA**

Natural product that creates a physical barrier here you want to prevent the formation of anthills by releasing a pleasant scent into the environment.

	Code
Bottle <b>1lt</b>	8055323808958



# NATURIZA.CARI

Natural product that creates a physical barrier to dust mites and spiders

	Code
Bottle <b>1lt</b>	8055323808866



# NATURIZTU.BI.FREE

Bio-stabiliser cleanser that reduces the biofilm in the plumbing and in the sewerage. It eliminates bad smells and helps to reduce the presence of roaches and drain flies.

	Code
Bottle <b>1lt</b>	8055323808842



# NATURIZDEO.CLEAN

Sanitizing action detergent that neutralizes odours and leaves a persistent and pleasant lavender scent.

	Code
Bottle 1lt	8055323808859



# NATURIZBIOSTERILYZ+



Ready to use product, ideal for all surfaces. Recommended for various cleaning activities at home, workplaces and public spaces where there is the need fo deep hygienic action.

# surfaces sanitizer with **70% alcool**

	Code
Bottle 1lt	8055323808934
Tank <b>5lt</b>	8055323808941

# The magic that turns perfumes into emotions

Environmental perfumers based on plant extracts

# NATURIZSANDALWOOD&PEPE and JASMINE&DOVER





#### **Environmental perfumers**

with natural essential oils and fragrances based on sandalwood, pepper and jasmine. For a pleasant and purified environment. **Aromatherapy** is a holistic practice that acts on the physical, mental and spiritual processes of the body, through the use of fragrant essences extracted from medicinal plants, flowers, resins, barks, roots, peels, leaves and fruits.

Through the nebulization of essential oils, aromatherapy involves both the body and the emotional sphere, including the patient's sensitivity, mood and state of mind.

	Code
Sandalwood&pepe 1lt	8055323809061
Jasmine&dover 1lt	8055323809078

# this is the reason why **we are leaders** in protecting against annoying insects



















