



Advanced Air Freshening System
Latest in Nanotech Photocatalysts
Simple, Safe Spray Application to Walls and Curtains
Deodorizes for 12 months

Want round-the-clock cleaning help? Put ZefirFresh™ to work on your walls, ceilings, curtains and furniture to turn your home into an advanced air freshening system that deodorizes and breaks down organic sources of unpleasant smells every day for the next twelve months.

ZefirFresh™ is a long-term strategy for deodorizing home and reducing bacteria and mildew – effectively preventing “sick house syndrome” from infecting your home. ZefirFresh™ is effective not just in the well-lit areas of your home, but also in the dark corners such as under the roof, under the floor, in closets, drawers, and storage areas, in shower rooms and kitchens, and around toilet facilities.

First, the combination of phytoncides in the solution instantly eliminates odors by breaking them down at their source. Then a combination of a titanium phosphate compound that reacts with oxygen and water (as a strong anti-odor, antibacterial, and anti-mildew agent) and titanium oxide, which reacts with light provides excellent long-term performance in eliminating odors, microbes and mildew

ZefirFresh™ can aid in fighting “sick house syndrome”, preventing food poisoning and reducing nosocomial infections (i.e., infections spread within hospitals).

Consider all the rooms in your house where you encounter unpleasant odors.

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|---------------------------|--|
| Bedrooms | Elimination of household odors, tobacco odors, and a variety of germs. |
| Entryway and halls | Reduction of household odors and various microbes. |



- Kitchen** Reduction of dangerous microbes such as colon bacillus.
- Bathrooms** Reduction of ammonia odors and bacteria.
- Shower and Sink areas** Prevention of mold, mildew, and bacteria from the moisture, and reduction of mildew odors and odors from bacteria.
- Closets and drawers** Prevention of mildew and bacteria on clothing, and odor elimination.
- Living and Dining rooms** Elimination of household odors and tobacco odors.

Details of Ingredients

Name of Ingredient	Effect	Durability	Benefits of the Ingredient
Titanium Dioxide	Very Good	Deodorant	Uses fluorescent light or solar light to break down harmful materials into water and carbon dioxide gas. When this material is struck by ultraviolet light, its photocatalytic functions occur slowly, over extended periods of time. A single application produces a long-term deodorant and antibacterial effect as well as a long-term breaking down of household contaminants.
	Good	Antibacterial	
	Good	Sick house syndrome	
Titanium Phosphate Compound	Very Good	Deodorant	Reacts with the oxygen and water in air to generate the same function of breaking down organic material as titanium oxide, even in the absence of light. The effects can be seen within 48 hours of application. The deodorant, antibacterial, and anti-mildew effects are long-term as is the breaking down household contaminants.
	Very Good	Antibacterial	
	Very Good	Anti-mildew	
Phytoncide Solution (F118)	Very Good	Deodorant	Type 118 Phytoncide: A natural botanical extract. Breaks down odors within seconds in virtually instantaneous odor elimination. Generates many negative ions, producing both an antibacterial effect and a relaxation effect.
	Good	Antibacterial	
	Good	Sick house syndrome	

Explanation of the Deodorant, Antibacterial, and Anti-mildew Effects of the Titanium Phosphate Compound

1. Once the titanium phosphate compound is sprayed onto a surface and allowed to dry completely (48 hours), the surface will react with oxygen and water in the atmosphere to produce trivalent ozone and bivalent oxygen. This oxygen unstable and so iteratively undergoes oxidation/reduction reactions between a trivalent and a bivalent state, where the O₂ that is produced through the reduction of the oxygen forms peroxides, and, through these peroxides are converted into hydroxide radicals (-OH), which have stronger oxidizing power. As a result, organic materials such as grease, bacteria, and other compounds, that adhere to and soil the surface of the coated material are broken down by these strong forces. The coating, thus, exhibits antibacterial, anti-mildew, and deodorant effects over extended periods of time. A patent application was filed jointly with the Osaka Municipal Technical Research Institute in 1998.
2. Differences from titanium oxide:
 1. Using water and oxygen as catalysts, the titanium phosphate compound exhibits strong oxidizing power, which is ideal for long-term deodorant, antibacterial, and anti-mildew effectiveness within buildings, and is ideally suited for tunnels and underground shopping areas as well.
 2. Because the titanium phosphate compound is colorless and transparent, it does not affect the color or texture of the material on which it is coated, making it suitable for use by anyone, and is safe for use without worry about damaging the material to which it is applied.
 3. The titanium phosphate compound has excellent adhesion, and can provide continuous deodorant, antibacterial, and anti-mildew effects over extended periods of time lasting five to ten years. Please note that Delphi Labs only claims that its products last 12 months.
 4. The titanium phosphate compound produces negative ions, and so is excellent for the hygiene of indoor air, and promotes relaxation and good health.
 5. Because the titanium phosphate compound uses water and air as catalysts, it provides antibacterial, anti-mildew and deodorant effects in places where mildew is most likely to appear, under the eaves, under the floor, in drawers, in closets, and the like.

F118: Tests By the Japan Food Research Laboratories

1. Skin primary stimulus tests using rabbits: No stimulus
2. Acute oral toxicity test, using mice: No problem
3. Formaldehyde, heavy metals: Not detected
4. Odor removal effectiveness test

Ammonia:	80% reduction after 30 minutes
	95% reduction after 60 minutes
Trimethylamine:	70% reduction after 30 minutes
	98% reduction after 180 minutes
5. Colon bacillus, staphylococcus aureus bacteria, blackpatch mildew: Not detected

After 12 years of work on a phytoncide mixture of 118 different types of natural vegetable extracts, this instantaneous deodorizing agent, which breaks down all types of odors, has been in use for 13 years in all types of industries, and since it was first sold, it has continued to be the most effective.

This “118 phytoncide mixture” breaks down the causes of odors, eliminating the causes for sick house syndrome, where the titania phosphate compound and the titanium oxide function continue to function with full effectiveness over extended periods of time.

History of Use of F118

Ajinomoto, Itochu, S.T. Chemical Co., Oki Electric, Odakyu, Isetan, Keikyu, Seibu, Seiyu, Daimaru, Takashimaya, Tokyu, Tokyu Hands, Tobu, Mitsukoshi, Hankyu, Westy Hotel, Tokyu Hotel, Hakone Shotsuen, Gajoen, Kisato University Hospital, Tachikawa Central Hospital, Tokyo Women’s Medical University, Kirin Beer, Sapporo Beer, Suntory, Daiichi Kosho (Karaoke), Nippon Paint, TDK, Toyo Suisan, Japan Defense Agency, HOYA, Maruha, Mitsui & Company, meat packing plants, Sharp, coal power plants, municipal health centers, chicken farms, pork farms, Tokyo Dome, pet shops, nursing homes, and many others.