Do you have a bacteria, yeast and mold problem in your hospital, clinic, office, factory and home?

We have the solution! **SM Nano 1152 TiO**₂

Even though our medical facilities are among the safest in the world, surfaces are repeatedly contaminated by a variety of factors. Our SM1152 Nano TiO₂ coating solution was formulated to continuously prevent growth of bacteria, yeast and molds on exposed surfaces.





Bacteria in The Office

CNN News Report Feb 2004

Arizona Univ. & Clorox Co.



Formaldehyde from hardwood, wall paneling and furniture....

→ Eve, nose and throat irritation; wheezing and coughing; fatigue, skin rash and severe allergic reaction.





OCICAL DOLLUTANTS (fungi, bacteria, virus) from household pets, kitchen, wet or moist walls, ceilings, carpets Respiratory irritations, allergy irritation







Germs

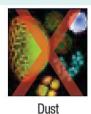


Pot: 49 CFU/in²





Formaldehyde



Biological pollutants

from decomposition of food, odor ->>

Nausea, damage to nervous system

(Malodor)



Bacteria

Mites

Mold

Pollen

Yeast



Frequently Asked Question

1. Is TiO₂ coating harmless to humans? Is it harmless to pets?

Nano TiO $_2$ liquid is completely harmless to human bodies and is actually used widely as a food additive.

2. After application, does it produce any odor? No, it does not have any odor.

No, it does not have any odor.

3. Does this Nano TiO₂ liquid have a shelf life?

There is no shelf life. This solution should be stored in a dark, cool environment.

4. How is this Nano TiO₂ liquid applied?

It can be brushed or sprayed onto surfaces. When applied to fabrics via spray, a brush should be used to work the solution into the fabric.

5. After it is applied, how long does it last?

 $\mathrm{TiO_2}\,\mathrm{PCO}$ Solution has a service life of 1-2 years depending on actual site conditions.

6. Does Nano ${\rm TiO}_2$ liquid remove odors from the air? How about from fabrics?

When exposed to light, Nano TiO_2 liquid will create -OH (hydroxyl radical) and O- (super oxide ions) which will decompose substances that creates the odor.

7. How does Nano ${\rm TiO_2}$ liquid prevent and remove contamination from surfaces?

They become oxidized by the photo-catalytic oxidation and float away as harmless substances.

8. Why does Nano TiO₂ liquid have a sterilizing and anti-microbial effect?

Most microbes die quickly when any part of them comes in contact with a coated surface. In addition, Nano TiO, liquid decomposes toxins that are discharged when microbes die (Verotoxins, Enterotoxins), rendering them into harmless vapors.

9. Exactly what type of odors will Nano TiO₂ liquid eliminate?

It will remove virtually all and any type of odor from surfaces as treated surfaces become resistant to microorganisms, mold, bacteria, viruses, smoke, odors, etc.



Researched and Tested by



Researched and Tested by Institute for Medical Research (IMR), Ministry of Health Malaysia against Dust Mites & ALS Technichem against bacteria, yeast & mold.



10. Does it work in cold environments such as freezers?

Yes. Microbes that come in contact with a treated surface will cease to exist.

11. Does Nano ${\rm TiO_2}$ liquid get rid of cigarette odors from tar and nicotine that have penetrated surfaces?

Yes. If a second hand smoke contaminated surface (second hand smoke is known to have over 400 known cancer causing chemicals) is treated with TiO_2 solution, the odor will soon disappear.

12. How does the intensity of light affect the ability of this Nano TiO_2 liquid to create friendly oxidizers which purify the air?

As a characteristic of titanium dioxide, it starts to produce friendly oxidizer en mass when exposed to ultraviolet rays of 400nm range or lower. It is more affected by the intensity of the ultraviolet rays rather than the intensity of light itself per se. However, any air pollution, VOC, or odor that comes in contact with a surface treated with Nano TiO₂ liquid will become oxidized.

13. What are some of the more popular applications for Nano $\mathrm{TiO}_{\mathrm{2}}$ liquid?

Bathrooms, floor tiles, sinks, showers, car interiors, to remove and prevent tobacco odors, kitchen counters, furniture and carpets (especially if you have pets), curtains, mini-blinds, windows exposed to light, ceiling fans, car rims, white outdoor furniture, house gutters (keep them mold free), concrete or brick that you want to keep mold free, the list goes on and on.

14. Can Nano TiO₂ be applied to carpets?

Yes, and with great results! Carpets treated with Nano ${\rm TiO}_2$ will resist not only odors and grime but also pests such as fleas. Carpets will last much longer as well.

[Physicochemical Data Sheet]	
Product Series	Nano TiO ₂ Sol Coating Agent (SM1152)
Appearance	Transparent liquid
Dispersive type	Solution
Odor	None
PH	7-8.5
Boiling Point	100°C/212°F
Volatility	None
Freezing Point	0°C/32°F
Flash Point	Non flammable
Average primary particle size - Acc. to GB/T 19591-2004	< 4nm
Crystal structure - Acc. to GB/T 19591-2004	Anatase
Specific surface area (BET) - Acc. to ISO 9277:1995	160± 30m²/g
Coagulation index - Acc. to GB/T 19591-2004	2-4
Material academic duration	Permanent
Coating duration - Acc. to outdoor simulation environment	1 year
Primary drying time	30 minutes
Final setting time	2 weeks
Saturated stream pressure	2333Pa acc. to H ₂ O 1 PN 20°C
Opposite stream density	< 1.0 acc. to H_2O
Solubility	Dissolve in water, miscible in oil
True specific gravity	1.0075 – 1.01
Viscosity, dynamic	1.0050 mPa.s
Vaporize velocity	< 1.00 acc. to H ₂ O

For more information please contact:

www.somamedical.net / www.somamedicalglobal.com