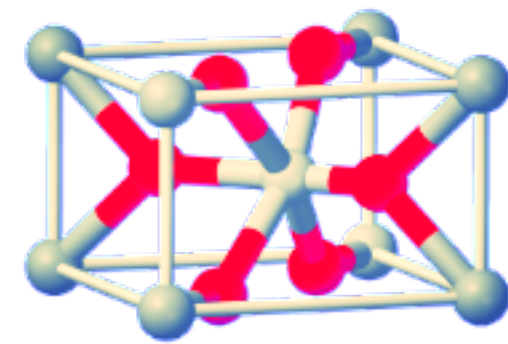


LightCleanse™
nanosize matters





TiO² Surgical Face Mask - Type III

Light**Cleanse** develops advanced photo-catalytic surface coatings to help combat against deadly disease transmission and initiation.

Using biochemistry at the molecular level, our proprietary coating technology eliminates pathogens and organic substances before they harm us.

After years of continuous research and experiment,

we present **TiO²** Surgical Face Mask -Type III



How effective is a typical Surgical Mask?

Two common terms used to describe the percentage and size of the particles filtered through a mask are "bacterial filtration efficiency" (BFE) and "particle filtration efficiency" (PFE).

BFE gauges how effective a mask is at filtering bacteria ranging from 1 micron to 5 microns while PFE refers to the percentage of particles that are filtered out at a pore size of 0.1 to 1 micron.

A typical surgical mask protects wearers from being splashed in the mouth with body fluids, and helps to prevent transmission of body fluids from one person to another. Also as the wearer breathes in, they are "sucking" bacteria and virus from the air surrounding them. These organisms stay on the surface of the mask in large volumes thus contaminating it.

A typical mask does not protect the wearer against cross contamination. Wearers may accidentally touch their mouth or nose while wearing the mask, which could transfer viruses and bacteria after removing the mask. The used mask if not disposed off properly could be hazardous to the environment.

TiO² Surgical Face Mask -Type III LightCleanse

How is the Light**Cleanse** TiO² Surgical Face Mask -Type III different?

Besides just BFE and PFE filtration, Light**Cleanse** TiO² Mask technology actually eliminates micro-organisms, odours and VOCs by oxidizing them upon contact. Wearers have less worry about cross contamination from the micro-organisms from the mask when they touch their faces.

Light**Cleanse** TiO² Mask photo-catalytic technology makes use of light energy and air to oxidize away micro-organisms instantly. As a catalyst, it works continuously for up to 28 hours.

Through the surface oxidization process, only a very negligible amount of carbon dioxide and moisture is produced and expelled back into the air.

No special attention is required when disposing of the used mask as the bacteria and virus on the surface were already deactivated.



What is Photo-Catalytic Oxidization?

When light is irradiated on the LightCleanse TiO_2 coated surface, electrons are released.

The released electrons combine with Oxygen to form superoxide anions

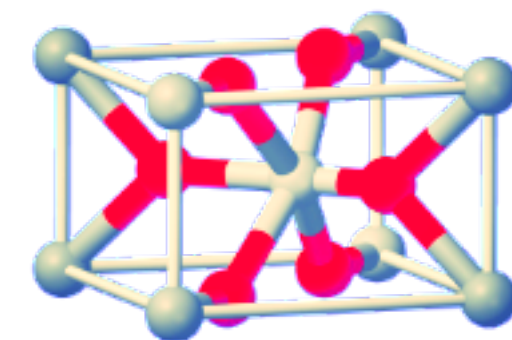
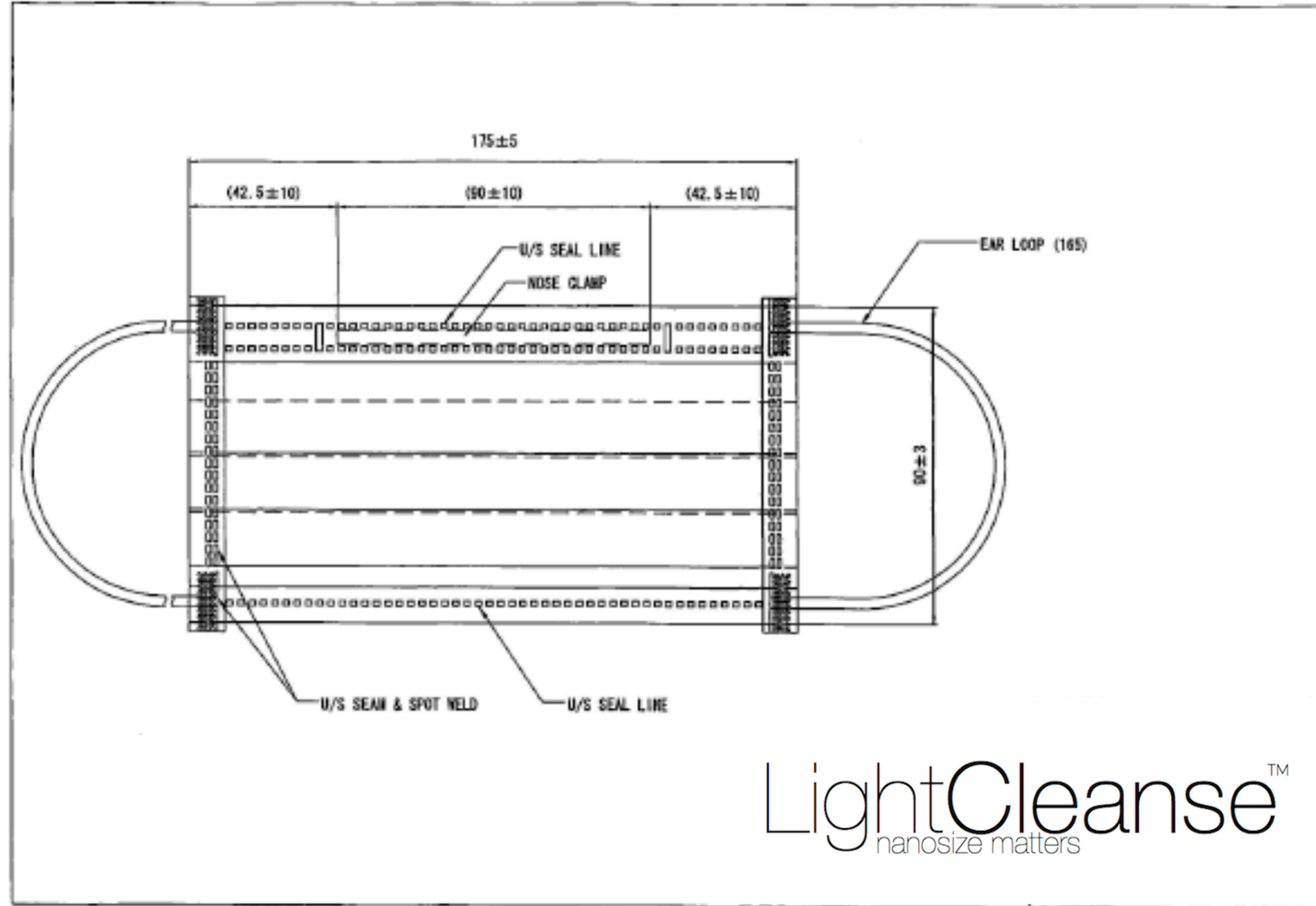
The positive charge on the surface gets electron from moisture (H_2O) on the air forming hydroxyl radical ($-\text{OH}$).

Superoxide anion and hydroxyl radical, with the power of oxidation, decompose organic pollutants such as oils, bacteria, VOCs, etc.

CO_2 and H_2O are produced and dispersed into the air.

This is why the LightCleanse TiO_2 Surgical Face Mask -Type III is different.

	LightCleanse TiO ² Surgical Face Mask -Type III	Conventional Surgical Face Mask
Bacterial Filtration Efficiency	Yes	Yes
Particulate Filtration Efficiency	Yes	Yes
Immediate Elimination of Bacteria on Contact	Yes	No
Immediate Elimination of Virus on Contact	Yes	No
Effective even when wet	Yes	No
Prevents Cross Contamination Upon Contact	Yes	No
Easy & Safe Disposal	Yes	No



LightCleanse TiO² Surgical Face Mask -Type III

3 Ply

Inner Facing - Layer Polypropylene Thermal Bonded Fabric

Outer Facing - Layer Polypropylene Thermal Bonded Fabric

Filter - Polypropylene Non-Woven

Side Tapes - Polyester Non-Woven

Ear Loop - Polyurethane & Polyester

Nose Clamp - Polyethylene Covered Steel Wire (4.3mm wide and core dia. 0.6mm)

LightCleanse TiO ² Surgical Face Mask -Type III
meets
ASTM F1201
EN14683
Standards