



# Preliminary Technical Datasheet

# SteriLynx™

## Crosslinking Antimicrobial Photosensitizer

**SteriLynx™** is a revolutionary new crosslinking agent that covalently bonds to polymer materials to impart long-lasting antimicrobial properties. When exposed to light, this photosensitizing zinc-porphyrin releases singlet oxygen that instantly kills bacteria, viruses, and fungi. And because it is chemically bonded, SteriLynx won't wash off!

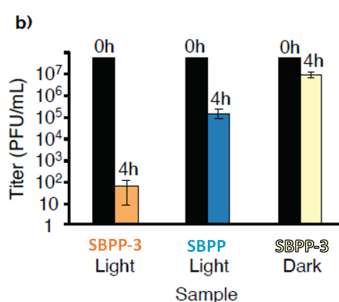
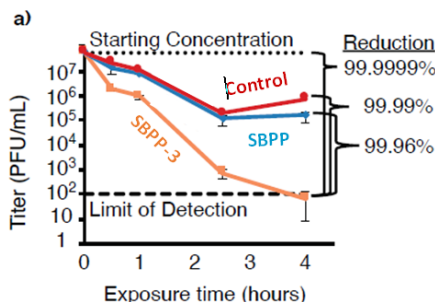
### Features and Benefits

- Easy to bond permanently to polymer fabrics or surfaces\* with moderate heating or near-UV light.
- Kills bacteria, viruses, fungi on contact ( $\mu$ s to ms). Unlikely to induce mutation.
- Preserves bulk properties of the fabric. Treated at very low concentrations (< 1wt%).
- Designed for medical PPE and other healthcare applications.
- Continuous pathogen sterilization during use. Remains active when exposed to light.
- Suitable for multiple uses or long term use. Does not wash off treated fabrics or surfaces.
- Safe and environmentally friendly. Does not leach into the environment.

Specifications	
Reactivity	Crosslinks with any aliphatic polymer through C-H insertion
Activation/Crosslinking	Long-wave UV irradiation (350nm) or heating (110°C to 140°C)
Mode of sterilization	Light induced release of oxidizing $^1O_2$ /ROS** at material surface for continuous pathogen inactivation **Singlet oxygen/Reactive Oxygen Species
*Polymer Substrates	Melt blown/spun bond polypropylene (PP); Polyethylene (HDPE/LDPE/UHMWPE); polyurethanes; etc.
Mode of application	Fabric infusion or spray coating

Representative antiviral performance study:

*Inactivation of influenza A virus (IFV)\*\*\* using a visible light stimulus*



- Reduction in active virus [plaque forming units (PFU/ml)] over time (hr) when exposed to visible light [empty well control, SBPP<sup>•</sup>, and SBPP-3<sup>••</sup>].
- Active virus concentrations at 0 hours and 4 hours for SBPP<sup>•</sup> exposed to light and SBPP-3<sup>••</sup> exposed to light and unexposed (dark).

<sup>•</sup>SBPP = untreated spun bond polypropylene  
<sup>••</sup>SBPP-3 = SBPP infused with SteriLynx  
<sup>\*\*\*</sup>IFV's enveloped structure and RNA genome are similar to those of SARS-CoV-2