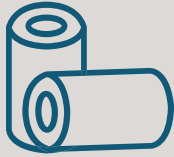
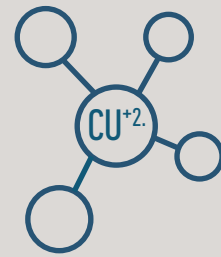


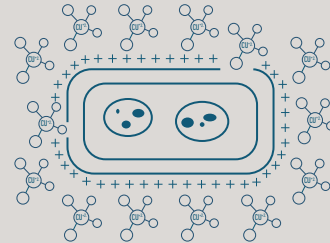
1. Our patented technology (5 in1) is based on a copper microparticle ( $\text{Cu}^{+2}$ ) that delivers high biocidal efficacy.



2. The microparticle is integrated into a Masterbatch that can be incorporated into the extrusion process of a variety of plastic polymers (PE, PP and PET).

For applications on **Non-woven fabrics, flexible plastics and rigid plastics.**

3. Our technology releases ions that pierce through microorganism's membrane and destroy its genetic material<sup>1</sup>



4. Eliminating microorganisms safely both for human health and for the environment<sup>2</sup>

It is for these qualities that copper is the only metal recognized and approved by the EPA as a biocidal agent.

5. ( $\text{Cu}^{+2}$ ) technology has a continuous and prolonged biocidal action<sup>3</sup>, eliminating viruses such as Coronavirus<sup>4</sup> and Influenza<sup>5</sup>, reducing its transmission.



6. A It also eliminates a wide spectrum of bacteria such as Listeria<sup>6</sup> and E coli<sup>7</sup>, preventing cross contamination.

7. The biocidal action is permanent since the genetic material, when destroyed, prevents viruses and bacteria from generating resistance<sup>8</sup> ~ as is the case with antibiotics ~



Enhance the **biological security** to your operations and clients with **Copperprotek®**

# Bibliografía:

1. Antibacterial properties of copper and its alloys. Konieczny, J. (2012)
2. Copper Reduction and Contact Killing of Bacteria by Iron Surfaces. Mathews S (2015)
3. Sustained Reduction of Microbial Burden on Common Hospital Surfaces through Introduction of Copper. Schmidt, M. (n.d.)
4. Human Coronavirus 229E Remains Infectious on Common Touch Surface Materials. Warnes, S. (2015)
5. Novel antiviral characteristics of nanosized copper(I) iodide particles showing inactivation activity against 2009 pandemic H1N1 influenza virus. Fujimori, Y. (n.d.)
6. Copper Alloy Surfaces Kill Bacteria and Reduce Hospital-Acquired Infections. Michels, H. (2015)
7. Copper biocidal surfaces are effective for Gram-positive and Gram-negative bacteria. Warnes, S. (2012)
8. Metallic Copper as an Antimicrobial Surface. G. Grass (2011)