



## Enhanced HACCP

**with**



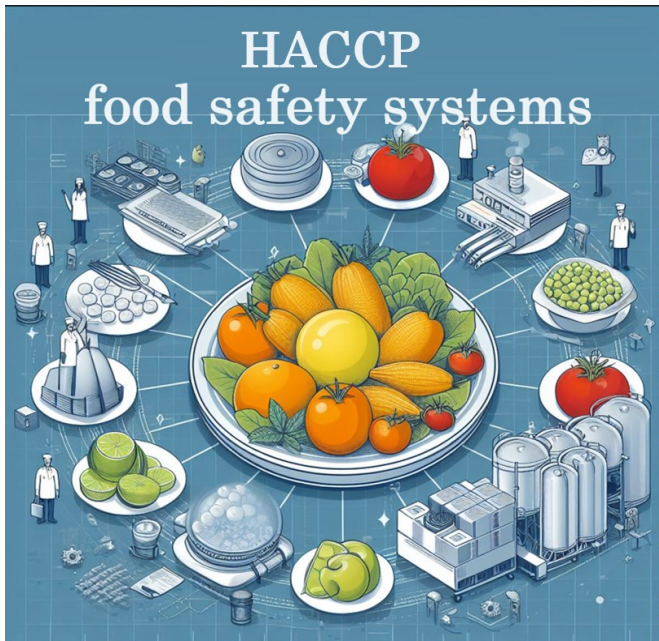
**HygieniaTouch<sup>®</sup>** is a brand name of IngeniaTouch Ltd. | Reg, 36 Fitzwilliam Square | Dublin 2, D02 HX82, Ireland  
Company Number: 562651 Ireland | Vat Number IE- 3567878RH

Member of SSPC: The Society for Protective Coatings / Member of steering committee Techies Go Green [www.techiesgogreen.com](http://www.techiesgogreen.com)

[info@hygieniatouch.eu](mailto:info@hygieniatouch.eu)

IRL: +353 879 010 419 / EUR: +31 619 760 531

[www.hygieniatouch.eu](http://www.hygieniatouch.eu)



## Can TiO<sub>2</sub> applications enhance HACCP?

**Risk Mitigation:** Both TiO<sub>2</sub> systems and HACCP aim to mitigate risks associated with harmful agents.

TiO<sub>2</sub> systems target microorganisms by neutralizing them through oxidative reactions, while HACCP identifies and controls potential hazards throughout the food production process.

**Preventive Approach:** Both systems adopt a preventive approach rather than reactive measures. TiO<sub>2</sub> systems proactively target and eliminate pathogens, whereas HACCP establishes proactive measures to prevent contamination and hazards before they occur.

**Focus on Safety:** The overarching goal of both TiO<sub>2</sub> systems and HACCP is to ensure the safety of the end product. Whether it's a surface treated with TiO<sub>2</sub> or a food product processed under HACCP guidelines, the aim is to minimize health risks and protect consumers.

**Systematic Methodology:** Both TiO<sub>2</sub> systems and HACCP rely on systematic methodologies. TiO<sub>2</sub> systems involve the application of semiconductor principles combined with light activation, while HACCP employs a structured approach to hazard analysis and control point identification.

**Continuous Improvement:** Both systems encourage continuous improvement and adaptation to evolving challenges. TiO<sub>2</sub> systems can be optimized for greater efficiency, while HACCP protocols are regularly reviewed and updated to address emerging risks and ensure effectiveness.

**Titanium dioxide (TiO<sub>2</sub>) in combination with UVA light** or visible light possesses properties that enhance hygiene by effectively eliminating harmful microorganisms. This system works by generating reactive oxygen species, such as hydroxyl radicals, which have strong oxidative capabilities capable of breaking down organic compounds, including bacteria and viruses.

On the other hand, Hazard Analysis and Critical Control Points (HACCP) is a systematic preventive approach to food safety that addresses physical, chemical, and biological hazards as a means of preventing potential foodborne illnesses. It involves identifying potential hazards in food production and implementing control measures at critical points during food processing to ensure the safety of the final product.

**While Titanium Dioxide with UVA or visible light** and HACCP operate in different domains - semiconductors and food safety, respectively - they share a common principle: the enhancement of safety systems to protect human health.



info@ingeniatouch.com  
IRL/UK: +353 879 010 419  
Europe: +31 619 760 531

