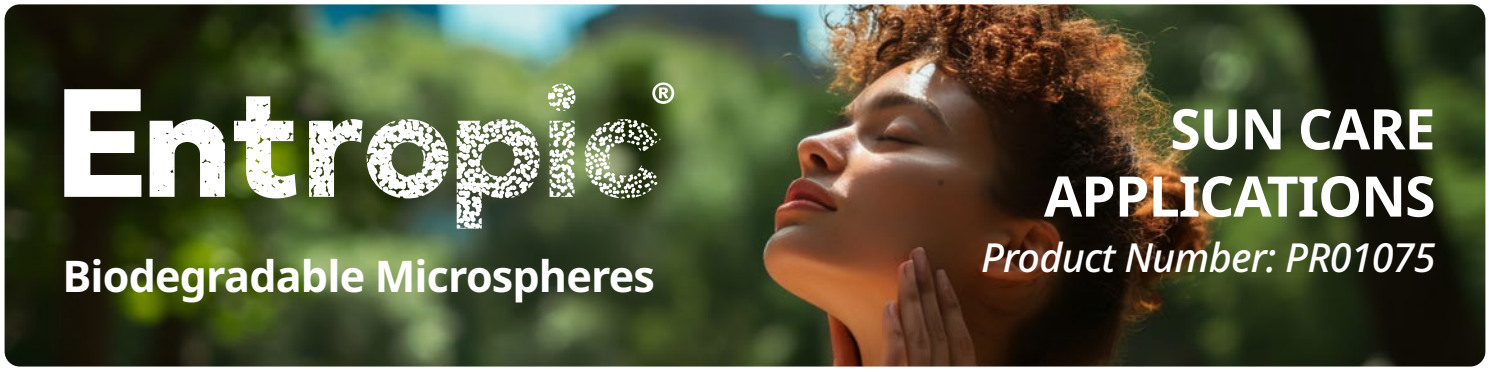
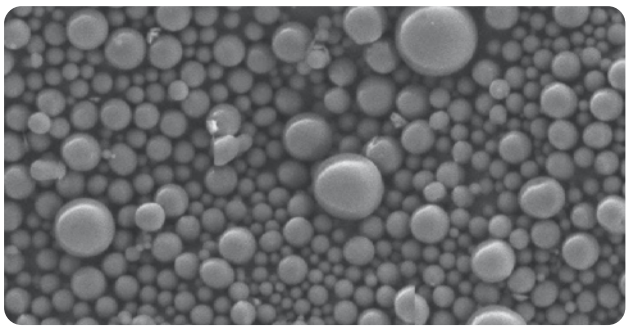


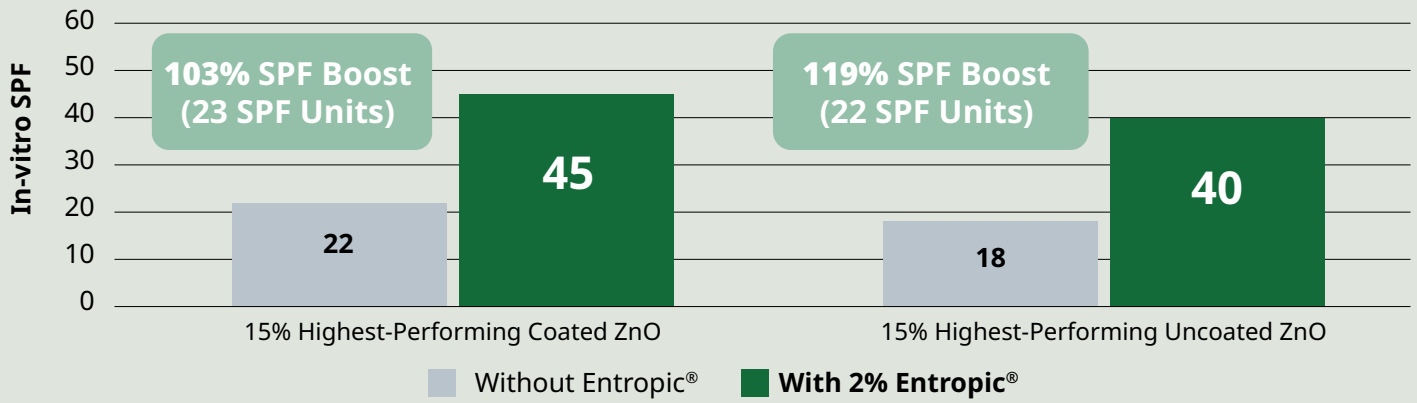
Clinically-Tested, Non-Nano, Sustainable Ingredient for Mineral & Hybrid Sun Care

Boosts SPF up to 119%, Reduces White-Cast, and Delivers a Matte, Soft-Focus Finish*

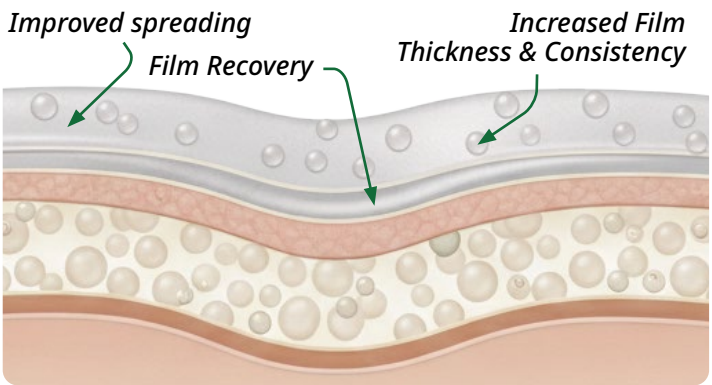


An upcycled, natural, bio-based, biodegradable sensory powder for sunscreens. Boosts SPF efficiency by up to **119%* at 2% use level**, enabling **lower mineral load** while delivering **matte**, **soft-focus** aesthetics and a smooth, velvety **after-feel**.

Entropic® In-vitro SPF Data W/O Mineral Sunscreen Systems



How It Works



Result: *More uniform UV-filter film and higher SPF efficiency.*

Key Benefits

- **119%* SPF Boost**
- **UVA Coverage Maintained**
- **Mattifying**
- **Soft-Focus**
- **Reduces White-Cast**
- **Improved Sensory Experience**

**119% SPF Boost measured for 15% highest-performing uncoated ZnO, from SPF 18 to SPF 40 (in-vitro), using 2% Entropic®.*

Interfacial, Nagase Group | N4660 1165th Street | Prescott, WI 54021 | IFLLC.com

INTERFACIAL NAGASE Group

High Performance Sun Care – With Proven Skin & Environmental Benefits

Sustainable by Design

- Upcycled, Sustainably-Sourced, and Bio-Based
- 100% Natural Origin (INO = 1 by ISO 16128)
- Biodegradable (OECD 301B)
- Renewable Origin
- Clean Label Positioning
- Low Environmental Impact
- Microplastic-Exempt
  (EU/ECHA) • EU 1223/2009 compliant

Material Attributes

Material Profile

Spherical Particles | 5–10–µm Median Size

INCI

3–Hydroxybutyrate/3–Hydroxyhexanoate Copolymer

Performance Summary

Boosts SPF Efficiency

Matte, Soft-Focus Finish

Smooth, Velvety After-Feel

Up to 119%* SPF Boost

Safety & Clinical Validation

- **Non-Nano**
  Not classified as namomaterial under EU criteria
- **Clinically Tested (RIPT)**
  No irritiation or sensilization observed
- **Dermatologist Tested**
  Suitable for sensitive-skin formulations
- **Microplastic-Exempt**
  Not classified as a microplastic under EU/ECHA

Applications

Recommended use level:
2% w/w depending on chassis and sensorial target

- Mineral & Hybrid Sunscreens
- Daily SPF Moisturizers
- Tinted Moisturizers
- BB & CC Creams
- Skin Tints & Foundations
- SPF-Boosting Cosmetic Hybrids

**119% SPF Boost measured for 15% highest-performing uncoated ZnO, from SPF 18 to SPF 40 (in-vitro), using 2% Entropic®.*

Contact Us for Samples & Collaboration

We're seeking partners to test and qualify Entropic® Biodegradable Microspheres in sun care formulations.

For formulation support, samples, and technical collaboration:

Jeremy Smith, Senior Manager

646-467-3112

jeremy.smith@nagase-nam.com

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