



Lumerium C60

Cosmetics

Description

LUMERIUM C60 is a high-purity fullerene C60 ingredient designed specifically for cosmetic and dermatological applications. Known as a powerful “radical sponge”, fullerene C60 neutralizes free radicals more effectively than vitamins C and E, making it a unique anti-aging and skin-protective active.

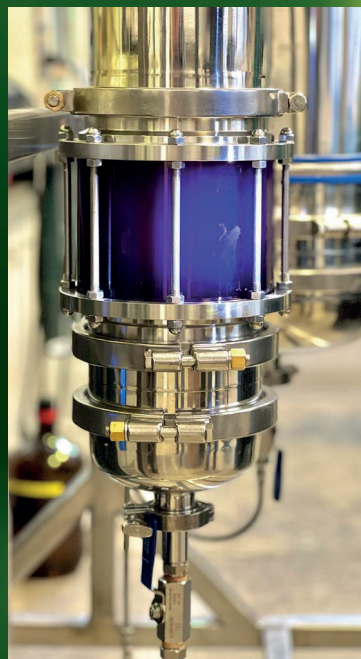
LUMERIUM C60 Premium fullerene C60 for advanced cosmetic formulations. Clinically studied as a potent antioxidant and anti-aging active, LUMERIUM C60 protects skin from oxidative stress, supports collagen, reduces wrinkles, and helps brighten the complexion. Available in ultra-high purity solvent-free and sublimed grades for reliable performance in skincare R&D.

Key Benefits for Cosmetics:

- **Potent antioxidant capacity: Protects skin from UV and pollution-induced oxidative stress.**
- **Anti-aging effects: Clinically demonstrated wrinkle reduction and anti-aging effects¹**
- **Skin elasticity: Helps preserve collagen and skin elasticity⁴**
- **Skin brightening: Contributes to skin brightening by reducing melanin production⁵**
- **Stable in formulations: Synergistic with vitamins and oils.**

References

1. “Clinical evaluation of fullerene-C60 dissolved in squalane for anti-wrinkle cosmetics”, Author(s):Shinya Kato, Hikaru Taira, Hisae Aoshima, Yasukazu Saitoh, Nobuhiko Miwa. October 2010. <https://doi.org/10.1166/jnn.2010.3053>
2. “Permeation of skin with (C60) fullerene dispersions”, Author(s): M. Martins, et al. 2017. (PMCArticle) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6999520/>
3. “Anti-Inflammatory and Antioxidant Effects of Liposoluble Fullerene in Cosmetic Application”, Author(s):M.Hui et al. - 2023. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9833127/>
4. “Influence of hyper-harmonized fullerene water complex on collagen molecules and biophysical properties of the skin”, Author(s):Miljkovic,S.et al. - 2020. <https://doi.org/10.1111/jocd.12999>
5. “Antioxidant property of fullerene is effective in skin whitening”, Author(s): (unnamed in abstract) - 2009. (Journal of the American Academy of Dermatology) “PVP-fullerene, due to its antioxidant properties, reduces UVA-induced melanogenesis ... 94% of subjects became fairer after 6 weeks”
6. “Study of the antioxidant capacity of fullerenes C60 in cosmetic formulations”, Author(s): Marilena Antunes-Ricardo, Sofia Trinidad Ortiz-Buentello, Laura Eugenia Romero Robles, Yadira Itzel Vega-Cantú. - January 2024. DOI:10.18687/LACCEI2024.1.1.324



Lumerium C60 SOL5060YL

Available from g level (for R&D, Tech centers and universities) to kg level (for industrial developments).



PRODUCT SPECIFICATIONS

Grade 99.95% (SOL5060YL)
Solvent-free* 

*Optimized for high solubility in water and aqueous buffers.

**Purity preservation: Packed under inert medical nitrogen gas to inhibit oxidation.

***Synthesized via a Solvent-Free Method (A Solaris Chem Inc proprietary solvent-free synthetic method is used, resulting in a solvent free material).

Estimated time to dissolve/disperse in:
Toluene: Few seconds to few minutes (max 3 g/L).
o-DGB: Few seconds to few minutes (max 24 g/L).
Olive oil: 3-5 days (to 0.8-1g/L, vs 2 weeks for most common C60 powder).
Estimated times provided as a guidelines only.



Green chemistry



Environmentally friendly

SUSTAINABILITY is fundamental to our operations and serves as the driving force behind our growth. At Solaris Chem, we emphasize the principles of green chemistry, minimize waste, recover and recycle solvents and materials to the greatest extent possible, and utilise renewable hydroelectric energy to support our activities.

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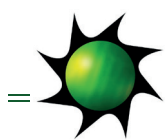
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Water soluble

by SOLARIS CHEM

Hydroxy C60

Cosmetics

Water soluble

Description

LUMERIUM HYDROXY C60 is a high-purity, water-soluble fullerene derivative (fullerenol C60(OH)_x) designed specifically for cosmetic and dermatological applications. Unlike pristine fullerene, LUMERIUM WS C60 disperses easily in aqueous systems such as serums, gels, and lotions, enabling broad formulation possibilities. Known as a potent “radical sponge”, fullerenol neutralizes multiple reactive oxygen species simultaneously, making it a unique anti-aging and skin-protective active.



LUMERIUM HYDROXY C60 delivers powerful antioxidant protection in serums, gels, and lotions — helping to reduce oxidative stress, support collagen integrity, and enhance skin vitality.

Key Benefits for Cosmetics:

- **Potent antioxidant capacity:** Quenches free radicals in aqueous environments, protecting skin from oxidative stress.
- **Clinically studied protective effects on cellular systems, reducing oxidative damage**¹
- **Supports skin vitality and elasticity:** by modulating collagen integrity³
- **Hydrophilic, formulation-friendly:** Ideal for serums, toners, and water-based emulsions.
- **Synergistic with vitamins and other hydrophilic actives.**

References

1. “Study of C60 fullerenol as a powerful antioxidant in aqueous systems”, Author(s): Andrievsky, G.V. et al. - J. Nanoscience Nanotechnol (2002).
2. “[60] Fullerene is a powerful antioxidant in vivo with no acute toxicity”, Author(s): Gharbi, N. et al. - Toxicol. Lett. (2005).
3. “Fullerenol nanoparticles: antioxidant and protective effects on skin and systemic oxidative stress”, Author(s): Injac, R. et al. - Biomaterials (2009).
4. “Influence of hyper-harmonized fullerene water complexes on collagen and skin biophysics”, Author(s): Miljkovic, S. et al. - J. Cosmet. Dermatol. (2020).
5. “Anti-Inflammatory and Antioxidant Effects of Fullerenol in topical application”, Author(s): Hui, M. et al. - (2023).
6. “Study of the antioxidant capacity of fullerenols in cosmetic formulations”, Author(s): Antunes-Ricardo, M. et al. - LACCEI (2024).

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