

## Zemea Propanediol

A natural carrier / diluent and bio-based chemical intermediate building block for cosmetic ingredients.

Ingredient	Use
Preservatives	Boosts efficacy of preservatives and may improve product handling
Cosmetic & Personal Care Actives	Helps deliver actives to the skin; boosts efficacy of zinc pyrithione (ZPT). Zemea° propanediol is now USP-NF, making it suitable as a carrier for benzoyl peroxide, antiperspirant salts, or other drug actives.
Solid Surfactants	Enables lower viscosity, high-active surfactant products and blends as alternatives to powder or low activity aqueous solutions
Dyes & Pigments	Lower viscosity than glycerin, more consumer-friendly than propylene glycol
Polymers	Pre-wetted polymer option for acrylates, polyacrylamides, urethanes, polyquats and cationic guar
Cationic Conditioners	Alternative carrier for solid fatty quats or other solid materials that cannot easily be sprayed or flaked
Botanical Extracts	Natural carrier and alternative extraction solvent replacing ethanol, hexane or propylene glycol
Novel Emollients	Develop polar esters that enhance spreading on skin, moisturization, skin elasticity potential or pigment wetting
Novel Cosmetic Solvents	Develop effective polar solvents with unique Hansen Solubility Parameters:  • Propanediol dibenzoate vs. propylene glycol dibenzoate  • Ethoxydipropanediol vs. ethoxydiglycol  • Dimethyl propanediol vs. dimethyl isosorbide  • Propanediol carbonate vs. propylene carbonate
Naturally-derived Polymer Thickeners	Petroleum-free modifier for cellulosics, guars, starches and others
Surfactants	Alternative reaction solvent to propylene glycol for production of surfactants or other polar materials.
Antimicrobial Stabilizers	Development of natural alternatives to preservatives

## For additional information or samples:

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