



Jarchem Innovative Ingredients

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Xicare™ 1305 Advanced Aqueous Dispersion of Iron, Metal, and Zinc Oxides

PRODUCT/SERVICE BACKGROUND INFORMATION

Liquid color cosmetics are currently based on water-in-silicone and water-in-oil based formulations. In the 1980's, volatile silicones and water-in-silicone provided superior application properties, but at the expense of aesthetic variation. Since then, customers have become increasingly concerned with the use of silicones pushing the industry to develop silicone alternatives. Xicare™ 1305, developed in 2020, allows for the aqueous dispersion of untreated Iron, titanium, and zinc oxide pigments in water. By introducing these pigments in water, which is more volatile than volatile silicone and the formulation has a light weight.

WHAT IS THE COMPANY INTRODUCING TO THE MARKET/INDUSTRY?

Xicare™ 1305 works by anchoring to the metal oxide surface via the phenyl, hydrogen, carboxylates and amide. When combining with action with the neutralized water soluble negatively charged carboxylates, a steric barrier is formed around the pigment particles creating electrosteric dispersion. This advanced aqueous dispersion provides long-term stability against agglomeration and flocculation. Xicare™ effortlessly is introduced in the water phase followed by suspending and wetting agents. Following that, the pigments are added to the water with a dispersion blade for 30 minutes (cold or hot process) making the manufacturing process easier and faster.

HOW WILL THIS NEW PRODUCT/SERVICE IMPACT THE INDUSTRY (BENEFITS)?

Xicare™ 1305 allows for the optimal dispersion of various untreated metal (Iron, Titanium, and Zinc) oxide pigments in water, which make aqueous color cosmetics and sun care possible. The creation of oil in water emulsions eliminates the need for silicones or hydrocarbons while not compromising performance in aesthetics. In sun care applications, Zinc Oxide can be dispersed in both the water and oil phase increasing SPF values, improving skin-feel, and allows for more creative and versatile end products. This easy-to-use dispersant has a low use level of 1% for every 10% of metal oxide.