Technical Data Sheet

iGEL 200

INCI Name (US):	Acrylates Copolymer
INCI Name (EU):	Acrylates Copolymer
CAS #:	250335-69-2
General Information/ Characteristics:	iGel 200 is an excellent rheology modifier, alkali-swell able anionic acrylic polymer emulsion, lightly crosslinked. It's easy to handle due to water-soluble and low-viscosity. This polymer is designed for high clarity surfactant cleansing formulation at moderately low pH (range 4.7-6.7). It has excellent salt tolerance and good compatibility with nonionic surfactant, anion surfactant. This polymer responds to this market trend by offering rheology modification that delivers high clarity and superior suspension in the 4.7 to 6.7 pH range. This allows formulators to display colorful beads, sparkling pearls, and exfoliating scrubs while also achieving claims of "paraben- free," "formaldehyde-free," "preservative-free," and even "skin neutral pH".
Benefits / Application:	**Benefits:** • Non associating rheology modifier • Excellent at suspending silicone, zinc pyrithione, powder and other insoluble ingredient in shampoo. • Provides stabilizing, thickening and co-emulsifying functions. • Applicable for transparent system. • Ideal for use with food grade preservatives such as Sodium Benzoate and Sorbic Acid. • Broad surfactant compatibility • Synergistic thickening with salt • Cold - processable, requires no heat and short mixing time • Order of addition and processing flexibility. **Application:** • Clear shampoo, body wash, facial cleanser. • Pearly shampoo, pearly body wash and other cleansers. • Conditioning products with big particle size or high molecular weight ingredients such as: conditioning shampoo, anti-dandruff shampoo, moisturizing body wash. • Foundation cream / lotion • Sunscreen cream / lotion

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Formulations Advices:

The minimum recommended use level of iGel 200 polymer in surfactant-based products is 6.0% as supplied (1.8% active). The polymer use level depends on the amount of surfactant and assumes use of salt for additional thickening. For clear formulations containing no salt and low surfactant actives, typical polymer use levels are 6-10% as supplied (1.8-3.0% active).

In most situations, iGel 200 polymer can be added to the free water of a formulation with gentle mixing at the start of the batching process. At this point, the pH will be about 3, resulting in very low viscosity. Upon addition of a base, the polymer will be neutralized at pH ≥ 6.5, resulting in immediate increase in suspending properties and viscosity. And then adjust pH at 4-6. We also can get optimal clarity, viscosity, and suspension. In traditional clear cleanser, 12 - 17 % surfactant solids were recommended. In lower surfactant clear cleanser, 8-10% surfactant solids, the typical polymer use levels are 10%-16%.

Regulatory Status:

No specific regulation

Physic-Chemical Properties:

Aspect (25ºC)	Milky emulsion
Solid content (%)	34.0 – 36.0
pH value (25ºC)	2.1 – 3.2
Viscosity (1% soln, pH =7.5~8.0, 25℃, mPa·s)	5000 - 11000
Turbidity (2.5% soln., pH＝6.6~6.7, NTU)	Max. 20
Ethyl acrylate (mg/kg)	Max. 1.0

These values indicate typical specification; they are not intended to be used as product specifications.

Shelf Life / Storage Conditions

24 months if stored. Keep in cool, Dry, Ventilated and Lightless Place.

Packaging:

200 Kg/drum

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