

## Technical Data Sheet of Sensogel™ 200

### Product Description

Sensogel 200 is a novel rheology additive for the water phase of cosmetic products, and is consisted of a hydrophobic modified associative polymer, oil, emulsifiers, glycerin, and water. Through the hydrophobic association, the pendant hydrophobic groups of the associative polymer enhances its thickening power, its O/W emulsion stabilization ability, its own product stability, its synergy with other thickeners, and its electrolyte resistance. At the same time, it offers a fresh, soft, non-sticky elegant sensory at pick-up, rub-in, and after-application.

### Legislation

- INCI HEA/Sodium Acryloyldimethyl taurate/Steareth-20 Methacrylate Copolymer (and) C13-C14 Isoparaffin (and) Polysorbate 80 (and) Decyl Glucoside (and) Glycerin
- CAS # 1562424-82-7/246538-79-4/9005-65-6/54549-25-6/8043-29-6
- EINECS Exempt/927-676-8 (or 920-901-0)/500-019-9/56-81-5

### General Product Specification

<u>Item</u>	<u>Specification</u>
Appearance	Translucent flowing gel
Odor	None to slightly aliphatic
pH, 1% W/W dispersion in water, 25 C	6.5 -7.5
Bulk Viscosity of Product, 25C/10 rpm/SP # 6	60,000 – 150,000 cP
2% W/W dispersion in a distilled water, 25C/5 rpm/SP #5	35,000 – 90,000 cP
Heavy Metal	< 20 ppm
Total Aerobic bacteria count (sfu/g)	< 100

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Total Mold and Yeast ( cfu/g)	< 100
Pathogen – E. Coli, P. Aeruginosa, S. Aureus	Not detectable

**Toxicological data:**

- Repeated Insult Patch Test (RIPT)
  - Tested at a 5% Sensogel 200 aqueous solution on 54 subjects by Repeated Insult (occlusive) Patch Test over a period of 4 weeks. The lot of Sensogel 200 was laboratory prepared and was similar to the commercial Sensogel 200 in composition.
  - Test result: Sensogel 200 was “Dermatologist-Tested” and was not associated with skin irritation or allergic contact dermatitis in human subjects.
- Hen’s Egg Test Chorioallantoic Membrane (HET-CAM)
  - The test method was based on that described in INVITTOX. 1992. Protocol No. 47: HET-CAM Test. This test is a non-animal test alternative to the Draize methodology. Sensogel 200 was tested as a 5% aqueous solution from a laboratory prepared lot with similar composition to the commercial lots.
  - The irritation potential of 5% Sensogel 200 was determined to have The Irritation Score (IS) of zero. Its irritation potential was classified as none/slight.

**Features/Benefits**

- Easy Manufacturing
  - Stable product, no separation and no sedimentation
  - Steady dose response
- Easy Formulation/product development
  - Fresh, soft, easy absorbing, and non-tacky sensory
  - Safe, Free of hazardous Acrylamide monomer
  - Works in pH 2 -12, and cold/hot process

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- 3 -in-1 product: Emulsifier, thickener, and stabilizer in one Sensogel 200
- Compatible with a wide range of polar solvents

### **Applications**

- Fine, rich skin and hair care lotion, cream, and cream-gel with fresh, soft, easy absorbing, and non-tacky texture
- Low pH formulations: Skin peeling, Self-Tanning, Acne treatment, Hair color/Perm, Bleaching, etc.
- Sun care and after-sun products
- Facial mask sheets
- Cleansers, make-up remover, etc.

### **How to use it?**

- 1- 4% in the O/W formulation without the emulsifiers
- 0.5 – 3% in the O/W formulation with the emulsifiers
- Can be incorporated in either the water phase or the oil phase, and can be hot or cold processed.
- Easy addition into the water phase: blend 1/1 of Sensogel 200 and any oil; add the blend into the water phase while mixing
- The processing at or above 50° C results in faster dissolution

### **Packaging**

20 kg in 5 gallon plastic pail

### **Storage**

- Store the product in its original package, sealed tightly, protect it from fire and high temperature
- After each use, seal the package immediately and tightly to prevent it from drying.

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