

Technical Data Sheet of Sensogel™ NOVUS

Product Description

Sensogel NOVUS is a novel rheology and sensory additive for the water phase of cosmetic products. It can thicken and stabilize O/W emulsions, even create O/W emulsions without the presence of an emulsifier. By increasing its dosage in the same or similar formulation, it can develop a range of textures from sprays, lotion, cream, and to butter while delivering a light, fresh, and moisturizing sensory during and after the application on skin.

It complies with all global regulations, including China. Its INCI name, without Isoparaffin, PEG & other ingredients commonly found on consumer black lists, is marketing-friendly. It is safe and free of hazardous acrylamide monomer. From the RIPT (54 subjects) test and the HET-CAM test, it exhibits no irritation to skin and eyes. This combination of sourcing, composition, and safety profile makes this ingredient suitable for clean beauty formulations.

Legislation

- INCI Hydroxyethyl Acrylate/Sodium Acryloyldimethyl taurate Copolymer (and) water (and) C15-23 Alkane (and) C13-14 Alkane (and) Decyl Glucoside (and) Glycerin
- CAS # 111286-86-3/7732-18-5/64742-46-7/64742-46-7/68515-73-156-81-5
- EINECS Exempt/NA/265-148-2/265-148-2/500-220-1/600-975-8/200-289-5

General Product Specification

<u>Item</u>	<u>Specification</u>
Appearance	Opaque Thick Gel
Odor	None to slightly aliphatic
pH, 1.2% W/W dispersion in water, 25 C	6.0 – 8.0
Bulk Viscosity of Product, 25C/10 rpm/SP # 6	40,000 – 120,000 cP
1.2% W/W dispersion in distilled water, 25C/5 rpm/SP #3	10,000 – 35,000 cP
2% W/W dispersion in distilled water, 25C/5 rpm/SP #5	45,000 – 85,000 cP

Dry residue, %	52- 59%
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Toxicological data:

- Repeated Insult Patch Test (RIPT)
 - Tested at a 5% Sensogel NOVUS aqueous solution on 54 subjects by Repeated Insult (occlusive) Patch Test over a period of 4 weeks. The lot of Sensogel NOVUS was laboratory prepared and was similar to the commercial Sensogel 200 in composition.
 - Test result: Sensogel NOVUS 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 NOVUS 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 NOVUS was determined to have The Irritation Score (IS) of zero. Its irritation potential was classified as none/slight.

Features/Benefits

- Easy Formulation/product development for personal care products
 - Fresh, soft, easy absorbing, moisturizing, and non-tacky sensory
 - Works in pH 2 -12, and cold/hot process
 - 3 -in-1 product: Emulsifier, thickener, and stabilizer in one Sensogel NOVUS
 - Thicken and compatible with a wide range of polar solvents – glycerin, ethanol, acetone, etc.
- Safe to skin for the global markets
 - No irritation to skin and eye from the Repeated Insult Patch test and Hen’s Egg Test Choriollantoic Membrane, respectively.
 - Comply with all global regulations, including China, etc.
 - Free of ingredient names commonly found on consumer black lists.

- EWG rating of 1 (one) for all Sensogel NOVUS ingredients.
- Easy Manufacturing
 - Stable product. No need to re-mix for manufacturing.
 - Steady dose response
 - Incorporate into either water phase or oil phase.

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?

- 0.5 – 3% in the O/W formulation with the emulsifiers
- 1- 4% in the O/W formulation without the emulsifiers
- Preferred process – 1) Add Sensogel into oil phase, 2) Add water phase into the oil phase while mixing to form O/W emulsion; 3) can be cold/cold or hot/hot process.
- 2nd Preferred Process – 1) Mix Sensogel into water to a water gel, 2) Mix oil phase into water phase to a O/W emulsion, 3) Hot/ Hot or Cold/Cold process.
- Add after the O/W emulsion step; make sure it is well-mixed to ensure a complete dissolution of Sensogel.

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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