



TECHNICAL DATA SHEET

Release Date: March 2020

ESAFLOR[®] PFT

CHEMICAL DESCRIPTION

Chemical description

Cationic hydroxypropyl guar gum

INCI name

Hydroxypropyl Guar Hydroxypropyltrimonium Chloride

CAS number

71329-50-5

EINECS/EILINCS number

Not applicable (polymer)

MAIN USE

ESAFLOR[®] PFT is a cationic polymer obtained by quaternisation of guar gum, specifically designed for clear cosmetics and personal care applications.

TYPICAL VALUES

Appearance at 20 °C:	powder
pH (1% aqueous dispersion):	8.0-11.0
Viscosity (mPa.s): (1% sol, Brookfield RVT, 20 °C, 20 rpm, pH 5.5-6, after 2h)	50-1000
Moisture:	10% max
Total microbial count (CFU/g):	500 max
Transmittance: (0.5% sol., 600 nm)	90% min

PRODUCT PROPERTIES

ESAFLOR[®] PFT has been specifically developed for transparent formulations.

ESAFLOR[®] PFT is a hydroxypropylated cationic guar derivative that provides conditioning benefits. The cationic charge of ESAFLOR[®] PFT interacts with keratin providing a conditioning effect on hair and skin.

ESAFLOR[®] PFT is cationic conditioner, produced through ESAFLOR[®] ZERO-X technology, a patented and sustainable process that allows saving water, reducing CO2 emission, energy and raw material consumption at the same time.

Though cationic, ESAFLOR[®] PFT is compatible with most anionic and amphoteric surfactants. ESAFLOR[®] PFT is not sensitive to electrolytes and it does not affect the appearance and rheology of the surfactant system.

ESAFLOR[®] PFT is soluble in water at room temperature: it gives clear solutions upon pH adjustment to 5.5-6.0. It is partially soluble in aqueous methanol or ethanol solutions and insoluble in oils.

APPLICATIONS

ESAFLOR[®] PFT is suitable for clear formulations and conveys skin and hair conditioning properties.

- Hair care: used as conditioning agent in 2-in-1 formulations at 0.2-0.5 %, delivering detangling properties, moderate conditioning and enhanced hair feel.
- Skin cleansing: used in products such as shower gels, liquid soaps and body washes, it conveys a soft afterfeel to the skin, leaving it silky and soft. It enhances also foam sensorial attributes and it can help in reducing negative effects generally linked to harsh soaps and surfactants.

ESAFLOR[®] PFT shows a good dispersibility in water. Add ESAFLOR[®] PFT to well-agitated water at room temperature and mix until dispersed. Viscosity develops when pH is adjusted to ~5.5-6 or less. After pH adjustment, continue stirring for 15-20 minutes to ensure complete hydration of the polymer, then add the remaining ingredients. To avoid any possible incompatibility between cationic guar derivatives and the surfactant system, the following order of addition is recommended: add ESAFLOR[®] PFT into water; adjust pH to ~5.5; add amphoteric or non-ionic surfactants and, once homogeneous, add anionic surfactants; add the remaining ingredients of the formulation.

STORAGE AND HANDLING

ESAFLOR[®] PFT should be stored in the originally sealed containers. In order to maintain the performance of the product, store in a cool and dry place.

Shelf life: 18 months

PACKAGING

25kg net weight cardboard boxes with plastic inner bag. Alternative package sizes may be available upon request.

MATERIAL SAFETY

Product safety data and handling information can be found on the relevant Safety Data Sheet, which is available upon request. It is recommended that the Safety Data Sheets are examined before using the product.

REGULATORY INFORMATION

The Technical Data Sheet is not a official declaration of compliance nor specification. Any specific information has to be released separately and nominally to each customer upon request.