

Sulfur hyper-branched polyesters (NT011)

The present invention concerns sulfur-based hyper-branched polyesters derived from natural fatty acids based on vegetable oils (colza, sunflower, castor oils...).

Keywords: Hyper-branched polyesters, Hydroxylated fatty esters, Thiolene coupling, Vegetable oils

Intellectual property: FR-15-60389

> Presentation of the technology

- Rheology modifiers (viscosifier, thickener, fluidizing agents...)
- Encapsulation or vectorisation of actives
- "One-pot" synthesis of hyper-branched polyesters easier and cheaper than synthesis of dendrimers
- High functionality level allowing to reach a wide product line
- Modular chemical and physical properties (solubility, hydrophilic-lipophilic balance, rheology...)

> Competitive advantages

- High-performance additives
- Wide range of products
- Industrializable « One pot » synthesis
- Oleochemistry

> Applications

- Paints
- Adhesives
- Lubricants
- Coating
- Cosmetic industry
- Building materials...

> Development stage

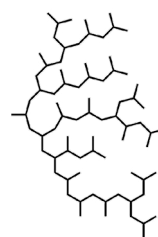
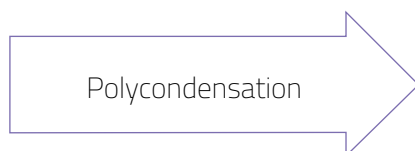
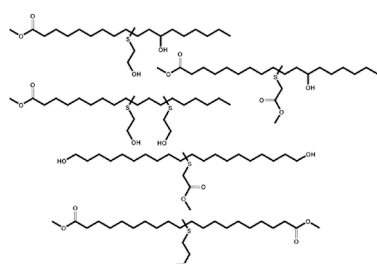
- Technology validation in laboratory environment
- Samples available for application trials

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> Development opportunities

- Scaling-up development
- Extension of product line
- Validation of product performances
- Partnerships for product development

> Technical specifications



Molar mass :

Mn = 3 000 - 13 000 g.mol⁻¹

Glass transition :

Tg = (-56) - (-35) °C

Thermal stability :

Tf = (-29) - (-20) °C

Melting point :

Td = 266 - 313 °C