

# Center for Applied Nanotechnology

## can<sup>®</sup>-T 167

### Liquid Thickening and Suspending Polymer for HI&I Applications

#### Introduction

can<sup>®</sup>-T 167 is an easy-to-use liquid rheology modifying polymer developed to thicken, suspend and stabilize products. It improve flow properties in a broad range of product types for HI&I applications.

#### Product Properties

can<sup>®</sup>-T 167 is a cross-linked acrylic polymer dispersion with the following typical properties. These characteristics are for guidance only and not to be taken as product specification.

Appearance	Milky white liquid
Odor	mild
Active polymer	30%
Viscosity as supplied	1-20 mPas
pH	2.0 - 3.0

#### Key Benefits and Features

- Easy-to-use liquid form
- Excellent clarity
- Outstanding suspension and stabilization
- Efficient thickening
- Shear-thinning Rheology
- Smooth flow in surfactant systems
- Flexible pH range
- Excellent compatibility with surfactants
- Synergistic thickening with salt
- Stabilize emulsions

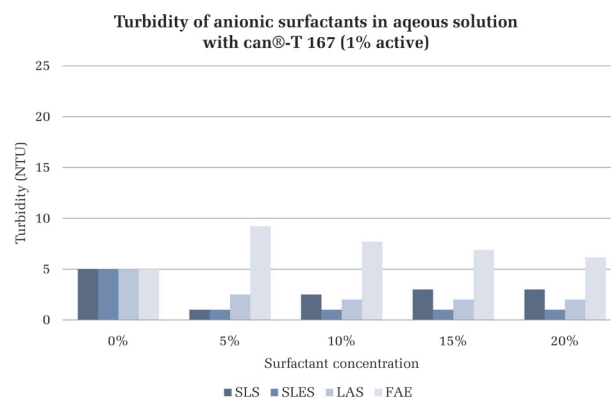
#### Applications

- Car Wash
- Manual Dishwashing Liquids
- Hard Surface Cleaner
- Laundry Detergent
- High Surfactant Products
- Emulsions
- Polishes

#### Clarity

can<sup>®</sup>-T 167 provides outstanding clarity with different types of surfactants in low and high surfactant systems.

The turbidity of low and high surfactant systems with 1% active polymer is remarkable low.



#### Thickening

can<sup>®</sup>-T 167 is a efficient thickener. The viscosity for mucilages containing different amounts of polymer is increased with polymer concentration.

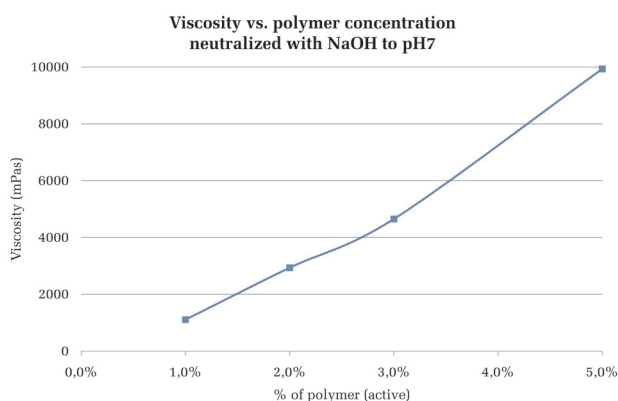
CAN GmbH offers companies and research institutions contract research and development services in the area of nanotechnology and participates in national and international research programs. The focus of activities is on the utilization of new findings made in chemical nanotechnology and analysis, particularly in the areas of consumables, special polymers and health care. The main areas of expertise include the production of numerous nanoparticulate materials, the encapsulation of active substances, the development of toxicity assays as well as the development of nanoparticle-based biological and medical markers.

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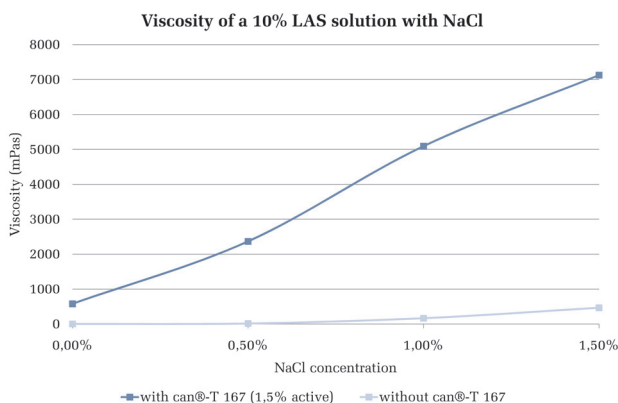
## can<sup>®</sup>-T 167



### Salt thickening

The viscosity of surfactant and can<sup>®</sup>-T 167 containing products is increased by the addition of salt.

The thickening for 1.5% active polymer in a formulation with 10% active linear sodium dodecylbenzene sulphonate (LAS) and various amounts of sodium chloride is shown below.



### Usage

The typical use level of can<sup>®</sup>-T 167 is 1.5-2.5% active polymer dependent of desired

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product characteristics and formulation ingredients.

We recommend the following order of addition to your formulation.

- Add can<sup>®</sup>-T 167 to deionized water
- Add primary surfactants
- Neutralize to pH 6.2-6.5
- Add remaining surfactants
- Add other ingredients (dyes, fragrances, preservatives)
- Adjust pH as needed, optimal clarity is obtained above pH 6.2
- Add sodium chloride to increase viscosity if necessary

### Viscosity

The viscosity of all samples was measured with a Bohlin Gemini HR<sup>nano</sup> Rheometer with a cone/plate geometry of 1°/40mm, 25°C and a shear rate of 10/s.

### Handling and Storage

Keep container closed when not in use. Store in cool and dry area. Store at temperature of 5-30°C. Protect from frost. Shelf life: 2 years.

### Samples and More Information

Request for samples or if you would like additional information or technical assistance in preparing specific formulations, write or call CAN GmbH.

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