ACULYN™ Excel Rheology Modifier

**Description**
A thickener and suspension aid for cleansing formulations.

INCI: Acrylates Copolymer

**Features and Benefits**
- Efficient at suspending both beads and bubbles at low pH values
- Offers a smooth flow
- Compatible and efficient with a variety of surfactants including mild surfactants
- Compatible with typical ingredients used in cleansing formulations
- Exhibits clear formulations
- Efficient at thickening and suspending in sulfate-free surfactant systems
- Effective over a broad pH range from 3 to 11

**Applications**
- Body washes and exfoliating body washes
- Facial washes and exfoliating facial cleansers
- Liquid hand soaps
- Shampoos and conditioning shampoos
- Sulfate-free cleansing formulations
- Mild cleansing formulations

**Physical Properties**
The following are typical properties of ACULYN™ Excel Rheology Modifier; they are not to be considered product specifications.

Typical use levels: .......................................... 4% up to 8% as is
Solids content: ............................................................ 30%-32%
Ionic nature: ............................................................... Anionic
Appearance: .................................................... White low viscosity emulsion
Solubilized viscosity at 1% (12 rpm, 25°C): .......... 2500-5000 cPs
pH: .............................................................................. 3.0-4.0

For product specifications, please contact Customer Information Group (CIG) of Dow.
ACULYN™ Excel Rheology Modifier is a HASE Rheology Modifier exhibiting very good suspending capabilities over a broad range of pH, including the more challenging low pH values, while delivering transparent systems.

The rheological (Viscosity/Shear rate) profiles of ACULYN Excel described in Figure 1 correspond to a specific surfactant system: 12.5% SLES - 2.5% CAPB and a single polymer concentration: 2.2% solids ACULYN (i.e., 7.1% as supplied) and have been characterized at various pH values from pH 4.5 to neutral conditions. Although this behavior will vary with the surfactant system and the polymer concentration, those graphs clearly demonstrate that the suspending properties of ACULYN Excel, as illustrated by the low-shear viscosity values, are not much affected by the pH, which is a huge advantage for the formulator as it offers additional flexibility for the formulation design.

ACULYN Excel is a versatile ingredient delivering suspension and clarity in a variety of surfactant matrices including mild surfactant systems such as systems containing sulfate-free or polyglucoside surfactants.

Figure 1.
Handling Precautions

Before using this product, consult the Material Safety Data Sheet (MSDS)/Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage.

**CAUTION!** Keep combustible and/or flammable products and their vapors away from heat, sparks, flames and other sources of ignition including static discharge. Processing or operating at temperatures near or above product flashpoint may pose a fire hazard. Use appropriate grounding and bonding techniques to manage static discharge hazards.

**CAUTION!** Failure to maintain proper volume level when using immersion heaters can expose tank and solution to excessive heat resulting in a possible combustion hazard, particularly when plastic tanks are used.

Storage

Store products in tightly closed original containers at temperatures recommended on the product label.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user’s responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including Safety Data Sheets (SDS), should be consulted prior to use of Dow products. Current Safety Data Sheets are available from Dow.

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