



Technical Data Sheet

ACULYN™ 38 Rheology Modifier

INCI name: Acrylates / Vinyl Neodecanoate Crosspolymer

Features & Benefits

- Stable in highly alkaline systems
- Particulate suspension
- Polar solvent compatibility
- Instant neutralization/thickening
- Short flow
- Cold-processable/liquid
- Divalent ion tolerance
- Excellent viscosity stability
- Yields clear gels
- Flat pH/viscosity response
- Lack of odor
- Excellent high shear stability
- Easy to handle
- Formulations exhibit little viscosity drift
- No predissolution necessary
- Compatible with nonionic and anionic surfactants
- Non-hygroscopic
- Permits stable formulations with particulates
- Increased manufacturing efficiency
- Formulation of spreadable lotion products that flow readily from the container
- Allows for use of continuous production processes with use of in-line static mixers
- Ability to stabilize suspensions
- Less sensitive to water hardness
- Able to formulate clear products
- Does not promote or support contamination, unlike natural thickeners
- Mild, soft, non-greasy, non-sticky
- No watery feel upon skin contact
- Flexibility in choice of preservative system
- Improved pickup properties
- Supported by comprehensive environmental, health and safety data

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
INCI name		Acrylates/vinyl neodecanoate crosspolymer
Association		None
Ionic nature		Anionic
Appearance		Milky liquid
Solvent		Water
Solids		29
pH (as supplied)		2.7
Density		1.05
Equivalent weight		239
Rheology		Short, smooth
Shear thinning		Moderate
Viscosity, (as supplied)	mPa s	< 150

Description

ACULYN™ 38 Rheology Modifier is an alkali-swellaable anionic acrylic polymer emulsion (ASE) that is lightly crosslinked to impart a short pseudoplastic flow. It is a liquid, cold-processable product that instantaneously thickens upon neutralization providing ease of handling and increased manufacturing efficiency. This thickener is offered at 28% solids and has been developed for use as a rheology modifier and suspending agent for personal care surfactant formulations. It is effective in a range of personal care surfactants and is useful at pH 3–11, depending on formulation. It is stable in the presence of sodium chloride and two common conditioning agents, Polyquaternium-7 and Polyquaternium-10 as well as, polar solvents and zinc pyrithione. The polymer has a well-established toxicological profile and is safe in normal use.

Additional Literature

Formulations

Hair Care:

- Lovable Locks Conditioning Shampoo with Anti-frizz
- Anti Dandruff Shampoo
- Pearlized Conditioning Shampoo with Silicone Emulsion
- Pearlized Conditioning Shampoo with Silicone Fluid

Skin Care:

- Shower Power Citrus Shower Gel with Gentle Micro Beads
- Low pH Suspending Body Wash
- Suspending Body Wash

**Handling
Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**Health and
Environmental
Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

**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, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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