



Technical Data Sheet

ACUSOL™ 460N Dispersant Polymer **ACUSOL™ 460NK Dispersant Polymer** **ACUSOL™ 460ND Dispersant Polymer**

Features & Benefits

Effective dispersant for a wide range of pigments, proteinaceous soils and more hydrophobic soils.

- Stable across a wide pH range
- Excellent surfactant compatibility
- Effective for calcium and magnesium dispersion, particularly in surfactant systems
- Good heat stability
- Automatic dishwasher anti-spotting agent for proteinaceous soils

In addition to glassware filming problems, spotting due to proteinaceous soils can be a particularly difficult problem to solve. ACUSOL™ 460N Dispersant Polymer is very effective in reducing spotting due to milk and other types of protein based soils. Typical use levels for automatic dishwasher applications are 20–25 ppm in the wash bath.

Typical Properties

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

Property	Unit	ACUSOL™ 460N Dispersant Polymer	ACUSOL™ 460NK Dispersant Polymer	ACUSOL™ 460ND Dispersant Polymer
Appearance		Pale yellow, slightly hazy liquid	Pale yellow, slightly hazy liquid	White, free flowing powder
Average molecular weight (Mw)		10,000	10,000	
Total solids	%	25	25	
pH		10.0–10.6	9.5–10.5	10.0–10.6 (10% aqueous solution)
Viscosity (Brookfield sp 2.60 rpm)	mPa.s/cps	100	100	
Specific gravity		1.1	1.1	
Solvent		Water	Water	
Water content, % by weight, dry 10 minutes at 150°C				9.0, maximum
Bulk density-loose	g/cc			0.38–0.47

How to Use

ACUSOL™ 460N Dispersant Polymer a versatile dispersant based on a carboxylated polyelectrolyte copolymer. ACUSOL™ 460ND Dispersant Polymer is a dry powdered form. The liquid product available in Europe is ACUSOL™ 460NK Dispersant Polymer.

It can be used in a variety of systems, particularly for formulations containing surfactants, where it demonstrates an excellent compatibility. It is thus suitable for liquid fabric wash products where it contributes to maintaining whiteness and offering lime soap dispersion. The polymer is suitable for use in heavy-duty liquid detergents to maintain overall fabric whiteness and offer lime soap dispersancy in systems containing fatty acid soaps as part of a builder package.

In automatic dishwashing detergent applications, ACUSOL™ 460N Dispersant Polymer acts as a protein soil dispersant. ACUSOL™ 460N Dispersant Polymer is effective on a wide variety of nonporous substrates, preventing the nucleation of water droplets and reducing spotting on glassware and hard surfaces. The polymer enhances the sheeting action of water off of various surfaces, making it an effective additive in automatic dishwash concentrates. ACUSOL™ 460N Dispersant Polymer is water-soluble, easy to use, and is effective at low concentrations in the formulated product.

It may also be used as a hydrotrope, as it can stabilize mixes of otherwise incompatible surfactants, allowing the preparation of more concentrated formulations with greater formulation flexibility.

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.

Usable Life and Storage

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

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

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