Lubrizol

PRODUCT SUMMARY SHEET

CP-29
Edition: June, 2006
Previous Editions: December, 2000 / November, 2002

Carbopol® Aqua SF-1 Polymer

Carbopol® Aqua SF-1 polymer is a novel, liquid, acrylic rheology modifier designed to suspend, stabilize, thicken, and enhance the appearance of surfactant-based personal cleansing products. It provides numerous benefits in a cost-effective and easy-to-use product. For more detailed information on Carbopol Aqua SF-1 polymer, a Technical Data Sheet is available upon request.

Description

- Milky, White Polymeric Dispersion in Water
- Contains 30% Active Polymer
- Low Characteristic Odor (Mild Acrylic)
- INCI Designation: Acrylates Copolymer

Benefits

- Easy-to-Use Liquid Form
- Suspension and Stabilization
- Thickening and Flow Control
- Clear Formulations
- pH Flexibility
- Excellent Compatibility
- Synergistic Thickening with Salt
- Stunning Enhancement of Pearlization

Applications

Carbopol Aqua SF-1 polymer was specifically designed to provide efficient suspending and stabilizing, as well as thickening properties, to surfactant-based personal cleansing products including:

- Clear Shampoos and Bath Gels
- Pearlescent Shampoos
- 2-in-1 Conditioning Shampoos
- Anti-Dandruff Shampoos
- Color Shampoos with Cationic Dyes
- Conditioning Body Washes
- Clear Facial Cleansers
- Skin Scrubs
- Low pH Applications (Salicylic Acid Shampoo)

Toxicology

Carbopol Aqua SF-1 polymer has an excellent toxicity profile. It is suited for all types of personal care formulations, including those for baby care and for sensitive skin. A complete summary of toxicological effects is available upon request.

Regulatory Status

Carbopol Aqua SF-1 polymer is registered in the U.S.A. and other countries. All components are listed on EINECS, the Japanese MITI list of existing chemical substances, and on Australia's AICS.

Storage and Handling

- Packaging: 55 gallon, 480 pound (217 kilogram) net weight plastic drums
- Shelf Life: nine months
- Storage Temperature: 40-85 °F (5-30 °C)
- DO NOT FREEZE

Literature Available

- Product Summary Sheet / Quick-Start Guide
- Technical Data Sheet
- Product Specifications
- Test Procedures
- MSDS
- Toxicological Summary
- Microbial Summary
- Formulations

Lubrizol Advanced Materials, Inc. / 9911 Brecksville Road, Cleveland, Ohio 44141-3247 / TEL: 800.379.5389 or 216.447.5000

For further information, please visit: www.lubrizol.com/personalcare

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QUICK START GUIDE

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Carbopol® Aqua SF-1 Polymer

Usage

The minimum recommended use level of Carbopol® Aqua SF-1 polymer in surfactant-based products is 5.0% as supplied (1.5% active). Carbopol Aqua SF-1 polymer is most efficient when formulated with typical active levels of surfactants used in cleansing applications. For maximum efficiency, 15 - 23% active surfactants are recommended.

Order of Addition

To ensure maximum benefit and efficiency from the polymer, we recommend that you follow this order of addition:

1. Add Carbopol Aqua SF-1 polymer to the (deionized) water of the formulation.
2. Add primary surfactants. (Example: lauryl sulfates / lauryl ether sulfates.)
3. Neutralize to a minimum pH of 6.5.
4. Add remaining (specialty) surfactants. (Example: amphoterics.)
5. Add conditioning and ancillary ingredients. (Example: silicones, cationics, EDTA.)
6. If desired, add pearlizing ingredients. (Example: mica, EGDS, EGMS.)
7. Add fragrance, dyes and preservatives.
8. If desired, decrease pH. (This will increase efficiency; citric acid is suggested.)
9. If desired, add sodium chloride to further increase viscosity.

Remember

- ➔ Clear systems are easily formulated at ~ pH 6.5 - 6.8.
- ➔ Carbopol Aqua SF-1 polymer works with salt. Low levels of sodium chloride (~0.5%) *increase* viscosity when the polymer is formulated with surfactants. Salt may decrease clarity.
- ➔ Carbopol Aqua SF-1 polymer is compatible with a variety of cationic conditioning polymers in anionic / amphoteric surfactant systems.
- ➔ The thickening and stabilizing power of Carbopol Aqua SF-1 polymer can be maximized by “Back-Acid” thickening (adding citric or other acid to a neutralized system), resulting in a final product down to pH 3.8.
- ➔ Carbopol Aqua SF-1 polymer has a remarkable ability to enhance the appearance and visual stability of pearlizing ingredients, especially mica, in surfactant systems.

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