

## Carbospense™ K-700 Water Treatment Polymer Types and Functions

Carbospense K-700 water treatment polymers are deposit control agents sold to water treatment service companies for use as formulation components for water treatment (e.g., cooling, boiler) programs. The Carbospense K-700 polymers are multi-functional anionic polyelectrolytes that disperse particulates (e.g., silt, clay, iron oxide, pigments), and inhibit scale formation (e.g., calcium carbonate, calcium sulfate, calcium oxalate, barium sulfate, calcium phosphate, calcium phosphonate) over a broad pH range, and sequester di- and trivalent cations (e.g., calcium, magnesium, iron, copper, chromium, zinc). Used around the world, Carbospense K-700 polymers have earned a reputation for high quality, consistency, stability, formulating flexibility, high total and active solids, and narrow molecular weight distributions. The Carbospense K-700 polymers include solvent and water polymerized polyacrylates, polymethacrylates, acrylate copolymers, and acrylate terpolymers and their function(s) as deposit control agents are shown in the table below.

<b>Carbospense K-700 Polymer</b>	<b>Chemical Type</b>	<b>Function(s) as Deposit Control Agents</b>
K-732, K-739, K-752, K-759	Solvent polymerized polyacrylates	High performance general purpose dispersants and scale inhibitors
K-702, K-7600N, K-7058, K-7058N, K-7058D, K-7028	Water polymerized polyacrylates	General purpose dispersants and scale inhibitors
K-765 and K-766	Sodium polymethacrylates	General purpose dispersants
K-775	Acrylate copolymer	Control phosphorus-based salts, stabilize metal ions, disperse particulate matter
K-776	Acrylate copolymer	FDA & USDA approved boiler water treatment iron oxide dispersant
K-781, K-797, K-797D, K-798	Acrylate terpolymers	Control phosphorus-based salts, stabilize metal ions, disperse particulate matter
K-XP212	Acrylate copolymer	Inhibits silica polymerization and disperses particulates

For more information, contact Lubrizol or go to the web site noted below.

CBSK700-WTP-Type-Function (Jun-07)  
™ Trademark of The Lubrizol Corporation

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability of any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. **THE SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.** Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.

© 2007 The Lubrizol Corporation

**Lubrizol Advanced Materials, Inc.**  
9911 Brecksville Road  
Cleveland, OH 44141-3247  
216-447-5000 Phone  
800-380-5397 USA Toll-Free  
216-447-5238 Fax  
[www.carbospense.com](http://www.carbospense.com)