TECHNICAL DATA SHEET

Carbosperse™ K-732 and K-752 Series
Solvent Polymerized Polyacrylates

GENERAL

Carbosperse K-732 and K-752 series solvent polymerized polyacrylates are a family of low molecular weight water soluble acrylic acid polymers. These polymers are high performance general purpose dispersants and scale inhibitors when used in many different applications separately or as part of formulations that may include corrosion inhibitors, microbiocides, and other additives.

PRODUCTS

The Carbosperse K-732 and K-752 series solvent polymerized polyacrylates include K-732, K-739, K-752, and K-759.

FEATURES AND BENEFITS

	Features	Benefits
•	Excellent threshold inhibition	Prevent the formation of scalant crystals which if formed may cause scale/deposit problems
•	Superior crystal distortion	Reduce adherence of scale-forming minerals therefore keeping heat transfer surfaces clean and maximizing system efficiency
•	Exceptional dispersant	Minimize blow down requirements thereby increasing equipment operating efficiency and reducing downtime
•	Very good calcium ion tolerance	Resist the formation of insoluble calcium salts and are not as prone to loss of activity if overdosing occurs and/or if used in systems operating at high cycles of concentration
•	Effective at low dosages	Facilitate cost-effective products for formulators and end users
•	Consistent product quality	Ensure predictable performance
•	Compatible with most water treatment chemicals	Provide formulating latitude and prolonged shelf life
•	Compatible with chlorine	Suitable for use in cooling water formulations where chlorine is used to control microbiological fouling
•	Narrow molecular weight distribution	Maximum performance tailored to the desired function and application
•	Hydrolytically stable	Provide formulating latitude and excellent shelf life as supplied and as formulation component

CBSK700-SPPAAs-TDS (Oct-08)

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.carbosperse.com

	Features (continued)	Benefits (continued)
•	Thermally stable	Retain activity in high pressure / temperature applications
•	High total solids and active polymer contents	Lower transportation and handling costs
•	Relatively nontoxic	No unusual handling or environmental concerns

APPLICATIONS

Carbosperse K-732 and K-752 series solvent polymerized polyacrylates are high performance general purpose dispersants and scale inhibitors used in many different applications alone or as components of formulations and/or treatment programs that may include corrosion inhibitors, microbiocides, and other additives.

TYPICAL PROPERTIES AND CHARACTERISTICS

Carbosperse K-732 and K-752 polyacrylates are supplied as clear to hazy, colorless to amber colored water solutions. The powders sodium salt forms of these products are Carbosperse K-739 and K-759, respectively and are supplied as white, free-flowing powders. The typical properties and characteristics of these products include:

Parameter	K-732	K-739	K-752	K-759
Nominal molecular weight [a]	6,000	6,000	2,000	2,000
Total solids (%) [b]	50	89	63	89
Moisture content (%)	n/a	11	n/a	11
Active solids (%) [c]	49.5	70.1	62.2	71.5
Neutralization (%) [d]	<5	>85	<5	>85
Heat of neutralization to pH 7.0, BTU/lb	169	n/a	205	n/a
pH	2.6	7.5 [e]	2.6	7.5 [e]
Viscosity (cP at 25°C)	350	n/a	950	n/a
Specific gravity	1.2	n/a	1.2	n/a
Apparent gravity (gm/cc)	n/a	0.55	n/a	0.55
Crystallization point / solidification point (°C)	-5 / -8	n/a	-6 / -10	n/a

[a] M_W = Weight-average molecular weight expressed as polyacrylic acid as determined by an aqueous GPC method.
[b] Determined via Lubrizol's automated computerized microwave oven procedure.
[c] Active solids = total solids - counter ions (sodium) from post polymerization neutralization with sodium hydroxide
[d] Percent neutralization of available carboxylic acid.
[e] pH of a 1% solution.

For more information, contact Lubrizol or go to the web site noted on the preceding page.