

## CARBOPOL®\* 934P NF POLYMER

Carbopol® 934P NF polymer meets the limits cited in the current edition of the following monograph:

- Japanese Pharmaceutical Excipients (JPE) Monograph for Carboxyvinyl Polymer†

### General Product Characteristics

Appearance: White, fluffy powder  
 Odor: Odorless or faint characteristic odor  
 Solubility: Practically insoluble in diethyl ether; Swells in polar solvents

Test	Specification	Lot Test Frequency <sup>1</sup>	Test Procedure <sup>2</sup>
<b>Identification</b>			
Gel formation test	Pass	1:200	Lubrizol SA-098
Calcium chloride precipitate test	Pass	1:200	Lubrizol SA-098
Magnesium sulphate precipitate test	Pass	1:200	Lubrizol SA-098
Infrared spectrum	Pass	--- <sup>3</sup>	Lubrizol SA-102
<b>Carboxylic Acid Content Assay, %</b>	58.0 - 63.0	1:1	Lubrizol 1318-A
<b>Viscosity, cP, 20°C</b> Brookfield RVT, 20 rpm, neutralized to pH 7.0 - 7.5			
0.2 wt% mucilage, spindle #4 (< 10,000 cP) or spindle #6 (≥ 10,000 cP)	1,500 - 50,000	1:1	Lubrizol SA-036
<b>Viscosity, cP, 25°C</b> Brookfield RVT, 20 rpm, neutralized to pH 7.3 - 7.8			
0.2 wt% mucilage, spindle #4	2,050 - 5,450	1:1	Lubrizol 430-I
0.5 wt% mucilage, spindle #6	29,400 - 39,400	1:1	Lubrizol 430-I
<b>Loss on Drying, %</b>	7.0 max	1:1	JPE
<b>Purity</b>			
Heavy metals, ppm	10 max	1:200	JPE
Arsenic, ppm	2 max	1:200	JPE
Acrylic acid, ppm	10,000 max	1:1	Lubrizol SA-005
<b>Sulphated Ash, % (Residue on Ignition)</b>	2.5 max	1:200	USP
<b>pH, 0.2% Dispersion</b>	2.5 - 4.0	1:200	Lubrizol SA-087

<sup>1</sup> Where lot test frequency is less than 1:1, Lubrizol Advanced Materials, Inc. certifies that each batch/lot meets requirements for the characteristics based on historical process and product data. Because these characteristics are tested on a skip-lot test frequency, results are not reported on the Certificate of Analysis.

<sup>2</sup> Lubrizol test procedures have been cross-validated to specified compendial procedure(s) or validated if they are included in the monograph.

<sup>3</sup> Infrared reference spectra available upon request.

†Lubrizol tests and certifies select lots of product against the JPE requirements.

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