

## **Product Specification**

## CARBOPOL® 941 NF POLYMER

Carbopol® 941 NF polymer meets the limits cited in the current edition of the following monograph:

United States Pharmacopeia/National Formulary (USP/NF) monograph for Carbomer 941

## **General Product Characteristics**

Appearance: White, fluffy powder Odor: Slightly acetic

| Test  | Specification  | Lot Test<br>Frequency <sup>1</sup> | Test Procedure <sup>2</sup> |
|---|----------------|------------------------------------|-----------------------------|
| Identification  |                |                                    |                             |
| Colorimetric test   | Pass           | 1:200                              | USP/NF                      |
| Gel formation test  | Pass           | 1:200³                             | USP/NF                      |
| Carboxylic Acid Content, Assay %  | 56.0 - 68.0    | 1:1                                | Lubrizol 1318-A             |
| Viscosity, cP, 25°C Brookfield RVT, 20 rpm, neutralized to pH 7.3 - 7.8 |                |                                    |                             |
| 0.5 wt% mucilage, spindle #5  | 4,000 - 10,000 | 1:1                                | Lubrizol 430-l              |
| Loss on Drying, %   | 2.0 max        | 1:1                                | USP/NF                      |
| Residual Solvent <sup>4</sup> ppm                                       |                |                                    |                             |
| Benzene   | 1,000 max      | 1:1                                | Lubrizol SA-095             |
| Residual Monomer, ppm   |                |                                    |                             |
| Free acrylic acid   | 2,500 max      | 1:1                                | Lubrizol SA-005             |

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.

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<sup>&</sup>lt;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>&</sup>lt;sup>3</sup> Gel formation is confirmed by the viscosity test procedure (Lubrizol 430-I) for each lot of polymer that is produced. Every 200 lots, the gel formation test is conducted according to USP requirements.

<sup>4</sup> No other residual solvents as listed in USP/NF <467> (Class 1, 2, 3, Table 4 or any other solvents) or Ph. Eur. 2.4.24 are used in the manufacturing process of this product. Since the monograph specifies a limit for benzene, the Residual Solvents test <467> limit for benzene is superseded by the monograph limit.