

**Title** Polymer Coated SOP micro size

**No.** PD-18

**Issued** May 16, 2006 **Supersedes** March 9, 1998

**Product Names:** Micro POLYON<sup>®</sup> Coated SOP; micro PCSOP;  
Polymer Coated SOP (PCSOP); micro RLC-SOP

Note: Reactive Layers Coating (RLC<sup>™</sup>) Process (RLC-SOP); PCF is Association of American Plant Food Control Officials (AAPFCO) Definition (T-32), Official Pub. No. 58, 2005

**Label Guaranteed Analysis:** 0-0-50

Soluble potash (K<sub>2</sub>O)\* .....50%

**Source of Nutrient:** Polymer coated potassium sulfate

\*50% slowly available potassium sulfate from polymer coated potassium sulfate as manufactured, per AOAC 970.04 (Katz) method. See reverse for AOAC test method description.

**Controlled Release Profile (CRP):** The CRP is the cumulative percentage of potassium (as K<sub>2</sub>O) released from the polymer coated SOP by diffusion through the polymer membrane coating measured at intervals over a period of time. There is good correlation of release between laboratory static water immersion CRP tests of POLYON coated potassium sulfate and turfgrass field tests when tested at the similar temperatures.

Turf Response Time\*  
@ Soil Temps.© Weeks  
Cool/Warm    Warm/Hot

12-8                      8-6

\*Higher rates of potassium should be applied for feeding 8 weeks than for feeding 4 weeks. For example, low turf response would be expected if micro POLYON PCSOP were applied in "cool" turf at only 0.2 lb(K<sub>2</sub>O) per 1000 ft<sup>2</sup>, since this generally is an insufficient amount of potassium to feed turfgrass over an 8-week period.

(over)

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**Abrasion/Impact Resistance:** The POLYON polymer coating is tough and durable; and, therefore, its release control quality remains unaltered even when subjected to harsh conveying, blending, or application operations. This means label guarantees for controlled release potassium can be met consistently when tested by the state fertilizer control chemists.

**Official Test for Coated Slow Release Label Guarantee:** The label guarantee for coated slow release potassium, CSRP, is as manufactured and shipped, per the Association of Official Analytical Chemists, AOAC 970.04 test method, commonly referred to as the Katz test, the method approved by the Association of American Plant Food Control Officials, AAPFCO. The percentage of unreleased potassium (as  $K_2O$ ) is determined after a 2-hour water leaching (dynamic flow) test conducted at 70°F to 75°F. This official test method for the label guarantee does not determine the actual release, e.g. the CRP, of the potassium which remains unreleased after the 2-hour test period.

**Moisture Resistance:** During storage mini POLYON PCSOP remains dry and free flowing even in hot, humid conditions. The critical relative humidity (CRH) at 86°F is above 95% (RH). Uncoated urea and SCU by comparison have a CRH from 70% to 75%. A micro blend containing both uncoated fertilizers and POLYON coated SOP, however, assumes the CRH of the uncoated fertilizer.

**Screen Analysis (Typical) and Size Guide Number (SGN):**

<u>U.S. Std.</u> <u>Sieve</u>	<u>% Retained</u> <u>Cumulative</u>	<u>% Retained</u> <u>on Each</u>	<u>SGN</u>
12	0	0	
14	9	9	97
20	69	60	
35	99	39	

**Bulk Density:** 90-95 lbs per cu. ft.