

**Title** TriKote PCSCU  
Regular, Mini sizes

**No.** PD-10

**Issued** Feb. 2, 2005 **Supersedes** May 20, 2003

**Product Names:** TriKote® Polymer Coated Sulfur Coated Urea; PCSCU  
Regular, Mini Sizes

<b><u>Label Guarantee:</u></b>	<b><u>Regular</u></b>	<b><u>Mini</u></b>
Total Nitrogen(N).....	42%	41%
42%(regular), 41% (mini) Urea(N)*		
Secondary Nutrients		
Sulfur(S) (free)** .....	6%	6%

Source of Nutrients: polymer coated sulfur coated urea

\*38% (Reg.), 37% (Mini), Slowly Available Urea Nitrogen from Sulfur Coated Urea as manufactured, per AOAC 970.04 test method (see reverse).

\*\* See your representative for the actual S analysis.

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

	US Std		
<u>Size</u>	<u>Sieve</u>	<u>SGN</u>	<u>UI</u>
Regular	95% -6+12	260	60
Mini	98% -10+14	150	70

**Regular**      **Mini**

**Bulk Density** - lbs/cu ft    46-48    46-48

**Angle of Repose** - degrees    30      30

**Caution:** The use of high speed bucket elevators, contact paddle blenders, drag lines, augers, or other rough or abusive handling or application equipment can break or abrade the sulfur coating, causing reduction in release control and a corresponding increase in the dissolution rate of urea. To determine the abrasion effect that unloading/blending/spreading equipment has, it is recommended that inspection samples of blended product be tested for coated slow release urea nitrogen (CSR-N) at routine intervals to support specific label claims on blended products for CSRN. **Pursell Technologies neither recommends nor endorses the use of PCSCU as an N source in container nursery stock.**

TriKote® is a registered trademark of RLC Technologies, L.L.C.    (over)

**Official AOAC\*\* Test for Slow Release Guarantee:** The immediately released nitrogen is determined by a 2-hour water leaching test (dynamic flow) conducted at 70°F to 75°F per AOAC 970.04 test method, commonly referred to as the "Katz Test", approved by the Association of American Plant Food Control Officials (AAPFCO). The label guarantee for coated slow release nitrogen, CSR-N, is the percentage of unreleased (N) which is verified by this test method.

**Dissolution Rate (DR):** An extended water immersion DR test, which is more severe than the AOAC 970.04 2-hour test (above), is a 7-day test (static soak) conducted at elevated temperature, Pursell uses 86°F (30°C). The nitrogen remaining after this test, which is based on a laboratory test method developed by the TVA, typically is about 70% to 40% (unreleased) of the total (N), and would be reported as having a 7-day DR of about 30% to 60% (released). Typically regular size will be at the low end DR range, micro at the high end of DR range and mini size will be in the middle of the DR range.

**Fertilizer Composition:** The TriKote coated fertilizer granule is comprised of a soluble fertilizer core surrounded by a moderately thin, composite coating with an average thickness of approximately 50 microns, which is about the thickness of a human hair. The primary constituent of this composite coating is a layer of elemental sulfur, which is yellow in color. Sealing and protecting the primary sulfur coating layer is another external layer, a uniform, tough, ultra-thin polymer coating layer. This polymer sealing layer provides initial control of soil moisture diffusion through the coating to the encapsulated soluble fertilizer granule core. The primary release control over time is provided by variable thicknesses of the sulfur coating layer, with thinner coated granules releasing in shorter time periods than those with thicker coatings.

Customarily, these coated urea fertilizers are referred to only as "sulfur coated ureas" (SCU), which is in accordance with the AAPFCO Definition N-27. However, since the TriKote coating is a composite coating of mineral sulfur and an organic polymer sealing layer, a more specific description which may be used is polymer coated-sulfur coated urea, PCSCU.

\*\*AOAC - Association of Official Analytical Chemists