

Step 1 - 15-0-3 Fertilizer (40% XCU) with 0.13 % Dithiopyr

This product is a fertilizer containing 15 percent nitrogen and 3 percent potassium, combined with an herbicide, dithiopyr. Forty percent of the nitrogen is derived from XCU, a polymer coated, sulfur-coated urea (PCSCU).

Nitrogen in this product comes from urea. Urea is obtained by reacting carbon dioxide with anhydrous ammonia at high pressure and temperature. Urea is highly water soluble and is a “quick-release” form of nitrogen.

The XCU PCSCU portion of the urea content of the product consists of a granule of urea coated with a thin coating of elemental sulfur, both covered by a polymer wax. These coatings provide a slow release of the nitrogen (urea) that permits maximum uptake and use of the nitrogen nutrient while minimizing losses due to leaching, volatilization or excessive turf growth.

Potassium in this product is in the form of muriate of potash (potassium chloride), which comes from mined sources.

Dithiopyr is a synthetic herbicide in the pyridine chemical family. It is also known by its brand name of Dimension®. Dithiopyr is a mitotic inhibitor of normal cell division in susceptible plants, stunting growth and reproduction. It is used for the pre-emergent and early post-emergent control of crabgrass, other susceptible grasses, and broadleaf weeds. Dithiopyr is strongly bound to soil; the soil dissipation half-life (time for half of the original concentration to decline) is between 17 and 61 days. In testing conducted prior to its registration in 1991, dithiopyr was determined to be highly toxic to freshwater fish and aquatic invertebrates (insects), but of low acute toxicity in mammals, non-mutagenic, and not a developmental toxin. It is listed as being “practically non-toxic” to birds on an acute basis. Dithiopyr scheduled for a re-registration evaluation in 2014.