Step 4 - 21-0-9 (50% UFLEXX) and 50% "Organic"

This fertilizer is used at certain elementary playing fields in town. It contains 50 percent of material described as "organic", 50 percent of UFLEXX®, a synthetic form of stabilized nitrogen, and a potassium supplement.

The "organic" component of this product consists of feather meal, corn gluten meal, soybean meal, wheat shorts, and wheat chop. Sources of these components are discussed below:

- Feather meal is made by partially hydrolyzing clean, undecomposed feathers from slaughtered poultry under elevated heat and pressure, then ground and dried.
- Corn gluten meal is a product of the corn wet milling process that separates germ, starch, fiber, and gluten. Corn gluten meal contains about 9 percent nitrogen and 60 percent protein, and also has some herbicidal activity by inhibiting weed root formation during germination. Most corn grown in the US is genetically modified for insect or herbicide resistance, so most corn gluten meal is likely to be genetically modified and, by definition, not organic.
- Soybean meal is ground soybean cake, ground soybean chips, or ground soybean flakes, which are byproducts after oil extraction from whole soybeans by pressure or solvents. The majority of soybeans grown in the US are genetically modified, so most soybean meal is likely to be genetically modified and, by definition, not organic.
- Wheat shorts are a byproduct of manufactured flour consisting of inner layers of the seed coat containing coarse flour or meal, with some bran and germ. It is typically use for animal feed.
- A specific definition of "wheat chop" could not be located.

UFLEXX® is a stabilized urea (nitrogen) fertilizer formulated with a nitrification inhibitor and a urease inhibitor to help retain nitrogen in the soil and minimize its loss to the atmosphere. An unknown (proprietary) percentage of n-(n-butyl)-thiophosphoric triamide is added as a urease inhibitor to restrict the conversion of urea to ammonium (NH_4^+). Similarly, an unknown amount of dicyandiamide is added as a nitrification inhibitor to restrict the microbial conversion of ammonium (NH_4^+) to nitrate (NO_3). Nitrate is easily leached from soil and can convert to gaseous form as nitrogen (N_2) or nitrous oxide (N_2O), which can volatilize from soil.

An unknown amount of muriate of potash (potassium chloride) is added so that a 9 percent potassium concentration is achieved in the final product.