


Evaluation of Wildland Fire Chemicals

STANDARD TEST PROCEDURES

STP 4.1-Salt Content Determination



Summary: Because the amount of chemical salt(s) in a long-term retardant formulation is directly related to the effectiveness of a product, it is important to know the level of salt(s) in a test sample of a product.

Standard fertilizer analysis methods are used to determine ammoniacal nitrogen, total phosphate, and ortho-phosphate.

A sample of the product that was submitted to the Forest Service for qualification testing is sent to an approved testing lab. Results are sent back to the Forest Service.

The Project Leader for Fire Chemicals compiles the results and prepares a letter to the supplier showing the results of the salt content determination on the submitted product.

Method:

1. All testing shall be performed in accordance with protocols of the AOAC International or other Forest Service approved methods.
2. Ammoniacal nitrogen, total phosphate, and ortho-phosphate analyses shall be determined on long-term retardant concentrates and mixed products as required.

References:

AOAC International. Nitrogen (Ammoniacal) in Fertilizers; Official Method 920.03.

AOAC International. Phosphorus (Total) in Fertilizers; Official Method 958.01.

Association of Fertilizer and Phosphate Chemists. Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphate; 11-20 Section 7, Orthophosphate.