# Application Bulletin

UVP-AB-202

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# Sulfa On-Site Test

**Application:** Sulfa on-site test (SOS)

**Wavelengths Used:** Longwave (365nm) ultraviolet

**Field of Use:** Pork Production

**Background:** Sulfamethazine, a carcinogenic antibacterial, is sometimes used by farmers to induce weight gain and combat disease in swine. The SOS test is used by the United States Department of Agriculture, Food Safety and Inspection Service, and many private interests to monitor swine urine, blood or feed for possible violative levels of Sulfamethzine residues. Widespread use of the SOS test followed a report issued by the Ntional Center for Toxicological Research in January 1988 that documetned the carcinogenic properties of Sulfamethazine.

**Procedure:** The SOS test is an application of Thin-Layer Chromatography (TLC). Appropriate samples are collected (from urine, blood or feed) and spotted onto the TLC plate along with high and low standard soutions of known identity and concentration. The plate is then migrated, fixed, develped and read. Presence of Sulfamethazine is determined by fluorescing the TLC plate in the UVP C-10 UV cabinet and comparing known samples against known standards.

**Primary Advantages of this Method:** The SOS test is a simple, fast and economical procedure that ultimately helps to reduce the amount of carcinogenic compounds in our food supply.

**Products Recommended:** UVL-56, UVL-21 Lamps with C-10 UV Cabinet. Cabinet provides a darkroom environment for visualization of materials.