OIL DRIES A NEW ABSORBENT MATERIAL;

FOR COLLECTING IGNITABLE LIQUIDS IN ARSON SCENES

By: Jessica Dove

ABSTRACT

Here we investigate the potential use of solid oil dry absorbent for ignitable liquid sample collection at a fire scene. Extraction of the ignitable liquid sample from a semi-porous surface such as concrete is especially difficult. For this purpose, six different oil dry absorbents were tested. Gas Chromatography coupled with Flame Ionization Detector (GC-FID) was used for identifying the ignitable liquids. Six different oil dries were spiked with different ignitable liquids (charcoal starter, gasoline, kerosene, and diesel). Out of six different oil dries, chromatograms for ignitable liquids obtained from Instazorb and Universal Organic oil dry matched very well with the chromatograms for the respective standards (neat samples). This demonstrates that these two oil dry materials do not interfere with ignitable liquid GC analysis. Currently, analysis of an ignitable liquid sample collected from concrete with the aid of oil dry (Instazorb and Organic) is under investigation.