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29 August 1997

**Committee D02 on Petroleum Products and Lubricants
Subcommittee D02.04 on Hydrocarbon Analysis**

Research Report D02-1413

**Interlaboratory Study to Establish Precision Statements for ASTM
D6160, Standard Test Method for Determination of Polychlorinated
Biphenyls (PCBs) in Waste Materials by Gas Chromatography**

ASTM International
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D6160
D02-1413

COMMITTEE D02 ON PETROLEUM PRODUCTS
SUBCOMMITTEE D02.4 - HYDROCARBON ANALYSIS

Research Report:D-2: _____

METHOD ROUNDROBIN TO SUPPORT STANDARD TEST
METHOD FOR THE DETERMINATION OF
POLYCHLORINATED BIPHENYLS (PCBs) IN WASTE
MATERIALS BY GAS CHROMATOGRAPHY
ASTM DXXXX-XX

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1. Introduction

A series of round robins were run in support of the development of a rugged method for the determination of PCBs in liquid and solid wastes, such as oils, sludge, aqueous solutions, and other waste matrices. The test method under development was entitled "Standard Test Method for the Determination of Polychlorinated Biphenyls (PCBs) in Waste Materials by Gas Chromatography," which originated out of a Task Force within Section D02.04.L on Gas Chromatographic Methods.

The Task Force was formed in response to a request from Subcommittee D02.P on Recycled Petroleum Products. They asked for a rugged method that would include extensive clean-up procedures for interfering species that often make PCB analysis of waste streams such as used oil very difficult. An existing method in use for several years by Safety-Kleen Corp. served as the starting point, with features also taken from several related ASTM and EPA methods¹

2. Test Method

A complete copy of the method as used in the last roundrobin with only editorial changes is provided as Attachment 1.

3. Round Robin Participants

The following laboratories participated in the December 1995 Round Robin which ultimately yielded the data used to generate the Precision and Bias statistics. For the most part, these same people supported this effort by participating in previous round robins. As can be seen, most of the laboratories are at Safety-Kleen Corp. facilities. Despite many appeals, few other laboratories volunteered to participate. This method has been in use at the Safety-Kleen labs for several years, so these analysts should be considered experienced.

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