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**Committee D02 on Petroleum Products and Lubricants
Subcommittee D02.03 on Elemental Analysis**

Research Report D02-1611

**Interlaboratory Study to Establish Precision Statements for ASTM
D7328-07, Standard Test Method for Determination of Total and
Potential Inorganic Sulfate and Total Inorganic Chloride in Fuel
Ethanol by Ion Chromatography Using Aqueous Sample Injection**

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1. Introduction:

Interlaboratory Study 97 was conducted to establish a precision statement for D7328, Standard Test Method for Determination of Total and Potential Inorganic Sulfate and Total Inorganic Chloride in Fuel Ethanol by Ion Chromatography Using Aqueous Sample Injection.

2. Test Method:

The Test Method used for this ILS is D7328. To obtain a copy of D7328-07, go to ASTM's website, www.astm.org, or contact ASTM Customer Service by phone at **610-832-9585** (8:30 a.m. - 4:30 p.m. Eastern U.S. Standard Time, Monday through Friday) or by email at service@astm.org.

3. Participating Laboratories:

The following laboratories participated in this interlaboratory study and provided statistically acceptable data:

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4. Description of Samples:

For total and Potential Sulfate determination, the denatured ethanol for all samples was supplied by Broin, Inc. Samples 1-7 were spiked with known amounts of tetrabutyl ammonium bisulfite to produce sulfate at the indicated levels by ConocoPhillips. Samples 8-10 contained naturally-occurring sulfate added semi-quantitatively by Broin.

<u>Sample Number</u>	<u>Estimated Sulfate Concentration, mg/kg</u>
1	0.0
2	0.1
3	0.5
4	1.5
5	4.0
6	5.0
7	20.0
8	0.5
9	1.0
10	4.1

The blank denatured ethanol was purchased from Fisher Scientific, Corp. and was denatured with a ketone. All other samples were denatured with 1-4.5% natural gasoline.