

Storage Solubility & Compatibility Test (SSCT)

8/8/2007

SSCT

- ASTM SSCT results from combining Federal Test Method 3430.2 & 3440.1 (1986)
- The approach taken with the SSCT is the same that is used for D6922 that is used to evaluate automotive engine oils (FED-STD-791/3470.1)

SSCT Scope

- **The SSCT Surveillance Panel is responsible for the surveillance and continual improvement of the Storage Solubility and Compatibility test documented in ASTM Standard Dxxxx as update by the Information Letter System. The Surveillance Panel is to provide continual improvement of test operation and test validation through communication with the ASTM B0.03 Gear Engine Oil Classification Panel. Actions to improve the process will be recommended when appropriate based on input to the Surveillance Panel. This process will provide the best possible SSCT Test Procedure for evaluating a gear lubricants storage solubility and compatibility performance.**

SSCT Actions to Date

- The B03 Chairman has formally requested that the Federal Test Methods be brought into ASTM via Test Monitoring Board
- An ASTM facilitator has been assigned to draft an ASTM Test Method – Terry Bates
- The TMC was requested to handle oil storage and shipment
- SAE has initiated oil(RM-93) transfer from Greening (Detroit) to the TMC. Delivery of 176 six-packs occurred on 8/6/2007

Actions to Date (continued)

- MSDS sheets identify the oils in the six-pack
- The TMC on 8/6/2007 contacted each supplier and requested analytical information for quality assurance
- A revision to PD4000 has been noted by SAE

Oils

- Current oils are dated, one or more may still be commercially available
- Probably not thermally stable, i.e. have not met L60-1 requirements
- TMC will run 100 deg C Viscosity, IR and elemental analysis on each of the 6 oils

Test Method Draft

- TMC has drafted an ASTM test procedure of the two Federal Test Methods for panel review.
- Comments/revisions are requested by October 1, 2007

Test Method Draft Questions

- Percent incompatibility =
$$\frac{X - (R \& T)}{0.9 (50r + 50 t)} \times 100$$
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- Where:
- R= Weight of separated material in reference oil (g/50 ml of oil). See 8.2.2
- T= Weight of separated material in sample oil (g/50 ml of oil). See 8.2.2
- X= Weight of separated material found in compatibility test. See 8.2.15
- r = Weight percent of additive in reference oil. This information is supplied by the Test Monitoring Center.

Proposed Objectives

<u>Objective</u>	<u>Target Date</u>
1. Perform Oil Quality Assurance	Jan 2008
2. Test Method Review Meeting	June 2008