Sequence VB Ford Engine Test: Statistical assistance was continued on studies of VB engine test variables. Relationships were determined between formulation and gelling tendency of used lube oils. Long term trends in varnish rating were identified and are being compared with formulation and condition changes. New equations were developed for sludge and varnish ratings.

PLASTICIZERS

Aroclor 5460: A GC method has been developed for determining the chlorinated biphenyl content of Aroclor 5460 chlorinated terphenyls needed for FDA approval of feeding studies done on this hot melt adhesive. The method uses a 2 meter column of 10% SE-52 silicone

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Aroclor 5460: (Continued)

gum rubber on Diatoport S programmed from 150° to 350°C with diphenyl sulfide as internal standard. The limit of sensitivity for chlorinated biphenyls is 0.1%. Since o-terphenyl elutes in the region of the higher chlorinated biphenyls, several components could not be positively identified by GC alone as chlorinated biphenyls or lower chlorinated terphenyls. Each of these peaks has been identified by GC/MS as chlorinated biphenyls, with up to 9 chlorine atoms per molecule. Terphenyl and mono-chlorinated terphenyl were present under some of the biphenyl peaks, but the total terphenyl level was less than 5% of this region for two Aroclors containing a relatively high level (0.9 and 1.6%) of chlorinated biphenyls. CALC IN SUP = 0.6% & 1.2

Polyvinyl Chloride Resins (PVC): A fluidized bed PVC coated transformer cover was exposed to weathering in Florida. Surface scrapings from three exposed areas and a control portion were examined by IR. Two of the exposed areas showed enhanced carbonyl and c-o-structures. The other exposed area showed a unique absorption that may be due to an oxidized sulfur compound.

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