

Anniston, Alabama

Dr. H. L. Jenkins - St. Louis
Dr. Edgar E. Hardy
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Research File

September 18, 1953

Mr. J. B. Trotter

Yours to Hardy of 9-1-53

St. Louis

WESTINGHOUSE ELECTRIC CORPORATION
Sharon, Pennsylvania

Mr. J. G. Ford

Our data on the effectiveness of diphenyl tin diethylate as an HCl scavenger in halogenated hydrocarbon mixtures are listed below with the other compounds requested for comparison. In our tests a dielectric grade paper was exposed to a measured quantity of HCl in Inerteen, in the presence of a scavenger, and the loss in tensile strength of the paper was determined to indicate the relative effectiveness of the scavengers.

Tensile Strength Tests on Scavengers

<u>Scavenger in Inerteen</u>	<u>Tensile Strength lb./inch</u>	<u>% Loss in Tensile Strength</u>
Plain paper, untreated	46.2	0
Diphenyl tin diethylate (<0.1%)	28.0	32
Phenoxypropene oxide (0.1%)	32.2	31
Tetraphenyl tin (0.1%)	18.2	31
No scavenger	11.5	100

Diphenyl tin diethylate is not soluble in transformer Inerteen to the extent of 0.1% by weight. In our laboratory tests 0.1% was added and the excess diphenyl tin diethylate was filtered off after stirring at 75°C. for fifteen minutes.

This material is susceptible to slow hydrolysis, therefore, precaution should be taken in handling and storing the powder. Our small sample is several years old and we would prefer that Mr. Ford obtain a fresh sample from Metal and Thermit Corporation, 100 East 42nd Street, New York 17, New York. It would be better to work with a fresher and possibly more pure sample than we have.

A. M. Eisenburg

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