DIRECTIONS FOR TEST NO. 14-51-45

SUBJECT: ~~Crystallization Characteristics of Aroclor 5460~~

METHOD: ~~Examination of Test Batch of Lacquer~~

REFERENCE: Report by A. Kirkpatrick to L.A. Watt 12-14-37, method No. 10.089-40. Plant B.

Scope

The W. P. Fuller Company has reported that crystals separated from their finished lacquer containing Aroclor 5460. The crystals were attributed to the Aroclor. Subsequent shipments of 5460 have been tested by the method below which is essentially the preparation and observation of a test batch of lacquer.

Materials

From Hercules Powder Co., Wilmington, Del.
Nitro Cellulose, Type RS 1/4 sec. NC
Ethyl Cellulose, Low Viscosity 3/4 sec.
Both are highly inflammable and should not be allowed to dry out.

From Eastman Kodak Co. Chemicals Division, Rochester, N.Y.
Butyl Acetate, techn. T-710
Ethyl Acetate, pract. P-300
n-Butyl Alcohol, pract. P-50
Toluene, pract. P-325

From Resinous Products Co., Philadelphia, Pa.
Paraplex, RG-2, 100% solids
Amber Lac, B-94, 80% solids

Preparation of Naval Solvent

Make a mixture of solvents in the proportions below:

37.5 cc.	Ethyl Alcohol
37.5 cc.	Ethyl Acetate
112 cc.	n-Butyl Alcohol
186 cc.	Butyl Acetate
127 cc.	Toluene

Procedure

The lacquer is prepared in a 2 ounce bottle with Bakelite screw cap. Upon the addition of each solid in the steps below be sure to shake until complete solution is obtained before proceeding to the next step.

1. Take 5 cc. Naval Solvent, add 1.6 g. Aroclor. Dissolve.
2. Add 5 cc. Naval Solvent, then 1.6 g. Ethyl Cellulose. Dissolve.
3. Add 10 cc. Naval Solvent, then 3.2 g. Nitro Cellulose. Dissolve.
4. Add 5.4 cc. Naval Solvent, be sure dotton is dissolved.
5. Add 2.0 g. Amber lac. Dissolve.
6. Add 6.8 g. Paraplex. Dissolve.

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Now note appearance, presence of cloudiness, presence of crystals, microscopic appearance of same. Inspect again after standing overnight. The presence of any crystals or cloudiness is sufficient to reject the material for shipment to any lacquer customer. Keep the test solution for several days, inspecting and recording condition daily.

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