

TO H.B. Carr

AT Burlington

DATE October 23, 1972

FROM F.W. Kanzler

AT Burlington

COPY TO R.J. Eckman
P. Cawason
H.R. Horton
FileSUBJECT MONTHLY PROGRESS REPORT
September & October, 1972I. ROUTINE ANALYSISA. Raw Material Evaluation

IR Scan	39
223M - Assay, A(0)	27
Avirol POL-1-N	
Cloud Point	5
% FAS	5
Bottle Polymerization	6
(2 runs @ 6 bottles each)	
(4 runs @ 4 bottles each)	
RVCM Storage	
Phenol in Copolymer Storage	8
VCM Tank Cars	
Light End Impurities	15
Styrene	
Polymer Content	20
MVAc	
Impurities	10
L ₂ O ₂ - Assay, A(0)	19

B. In-Process Analyses

Trace Oxygen, Compressor 1	24
" " , " 2	19
" " , " 3	23
" " , " 4	23
" " , " 5	24
" " , " 6	17
COD AI	40
COD FCE	40
Phenol	
AI	2
FCE	2
% FAS	
AI	5
FCE	5
DM Water (Copper, Iron, o-PO ₄ , DO, pH)	
Hot	2
Cold	2
Boiler House	2
Strainer Basket - A(0)	1

C. Finished Product

Bound Acetate	75	
Gel Count - Brabender Extruder	66	
PHR in Plastisol Paste	3	
Total from Section II	146	
	TOTAL	666

II. SPECIAL TESTING

A. Resin Plant

1. Raw Material

a. Nalco 40-B-03 Antifoam

In search for an effective FDA approved antifoam, this Nalco antifoam was tested and found to be unsatisfactory for the use in place of TBP.

b. DHW-80

Bottle date and reaction times in the plant were compared again for the various DHW-80 shipments received during the summer months. It was found that while the bottle data is somewhat noisy, reaction kinetics can be predicted from this data. A way of reducing the analysis return time must be found, however, in support of production to predict kinetic behavior of a new DHW-80 shipment.

c. Tributyl Phosphate (TBP)

A sample of TBP from Commercial Solvents was submitted for alternate raw material supplier evaluation. All properties tested were found to be well within the specification range. In addition, an antifoam evaluation test was run, the results of which compared favorably with TBP test results presently used in the plant.

d. Tridecanol

The high volatile levels found in 1738 and 1742 type resins during recent production was suspected to be due to changed quality of tridecanol. Gas chromatographic, infrared and Karl Fischer analyses showed no great differences in the impurity levels found in the tridecanol samples analyzed. Further investigation led to the conclusion that irregularities in the tridecanol additions during the bagging process is the reason for the high volatile levels.

e. Lupersol 223M

One lot of the most recent shipment from Lucidol (MMCK052, 10/19/72) was found to be low out of the specification (39.5%

spec 40.0%). Purchasing was contacted and a Corrective Action Request issued.

2. In-Process

a. Haze and Gloss

To further gather data for establishment of a specification range of the optical properties for all Plastisol resins, forty-two haze and gloss evaluations were performed.

b. Slop in 0565 (Process Engineering Support)

A residual vinyl acetate analysis was performed on a freshly stripped sample of latex to help to define the reason for slop encountered during 0565 runs. While no background data of this nature is available, future 0565 runs will be monitored for its residual monomer content when requested by Process Engineering.

B. Compound Plant

1. Raw Materials

a. Plasticizer Shipments

A total of seventeen plasticizer samples were analyzed via gas chromatograph and pH meter.

b. Bisphenol A in Plasticizers

Analysis capabilities have been established for the determination of bisphenol A levels in plasticizers (TIOTM). Incoming TIOTM shipments will be monitored using this method. A method for bisphenol A analysis from Piscataway was received and will be evaluated.

c. Tribasic Lead Sulfate (Tribase)

This raw material was evaluated as the possible source of the plate-out problem encountered in the 3805-D compound for All Disc. Initial infrared analysis showed no differences in any of the tribase lots tested. A tribase dispersion test was developed which indicates the degree of the dispersion of the tribase in a pressed out 3805-D dry blend formulation with an excess of tribase added. A memo covering the work done in Burlington will issue this month.

d. Identification of Unknown Compound Plant Inventory

A total of twenty drum samples were submitted by Compound Quality Control for inventory identification. With the exception of one, all samples submitted were identified.

2. In-Process

a. Color Matching

Starting with this report, color matches will be reported by

Compound Plant Quality Control only. The XL 10 Color Difference Meter was received on 9/20/72.

C. Flemington Support

1. Haze and Light Transmission Measurements on Impact Modified Plaques

Eleven samples of rigid plaques compounded, using experimental impact modifiers from Piscataway, were evaluated for haze and light transmission values. The experimental modifiers showed better haze and light transmission values when compared with commercial controls.

D. Miscellaneous

1. Running Account of Analyses

<u>May</u>	<u>June</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
332	330	424	333	301	365

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FWK/jt