

TO **Distribution**

FIELD POINT OR DEPT. & BLDG. NO.

DATE YOUR LETTER

FROM

FIELD POINT OR DEPT. & BLDG. NO.

DATE THIS LETTER

SUBJECT **Scott Perry****D/5055****2 July 1990****EXTRACTION TESTS ON VPK FILM**

Attached is a copy of the Goodyear report on the determination of UV absorbers and permanganate oxidizables for our VPK film.

Scott Perry

Distribution:**Sally Kline****Joe Vyvoda****Keith Gardner****D'Lane Wisner****Wally Bachtel****21640001**

DW Coulson, Chem Technician III

1 90060581

ROUTINE WORK REPORT

Chemical Analysis Section D415B

Request#: 90 1217
Charge#: 40121
Submitted by: JA Kay
(last name first)

Submission Date: 06/29/90
 Needed by: 062990
 Completion Date:

Phone#: 7-6474
Dept#: 202e

Location: 3
 Userid: t202e06
 Supervisor Userid: t202e06
 TEQ: (For Polyester)

Sample Type: oth
Number of Samples submitted: 6

TEST RESULTS

SUBJECT: FDA Approval of Semi Rigid Packaging Film.

SAMPLE DESCRIPTION: Pure water, heptane, sample extracts in water and heptane, and blank extracts of each solvent.

SUMMARY:

The extracts and solvents were tested as prescribed in the Code of Federal Regulations, Title 21, Section 177.1010. The packaging film was extracted in distilled water and heptane. Oxidizable extractables were determined by addition of potassium permanganate. UV absorbing species in these extracts were determined with spectrophotometric scans. Results were calculated as prescribed in the Code of Federal Regulations.

RESULTS AND DISCUSSION:

A Varian DMS 100 UV/VIX spectrophotometer was used for the UV scans. All the scans performed used a slit width of 0.5 nm and a 5 cm path. For both, the permanganate test and the UV absorbers test, separate blank corrections to be subtracted from the samples' absorbances were prepared for each solvent and scanned. Also, a separate correction factor for each test had to be developed for each solvent.

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The following results were obtained from test according to Title 21, Section 177.1010:

A. Acceptability of solvents for use in UV absorption testing:

	Maximum Absorbance Allowed	Absorbance Maximum Obtained
Water	0.03	0.005
Heptane:		
280 to 310 nm	0.02	0.040
270 nm	0.04	0.048
260 nm	0.09	0.058
245 nm	0.15	0.083

B. Blank correction for the UV absorption test:

	Average Absorbance
Water	0.004
Heptane	0.006

C. Acceptability of solvents used in permanganate test:

	Specs		Absorbances Obtained	
	min.	max.	min.	max.
Water	1.05	1.25	1.002	1.215

D. Blank correction for the permanganate test:

	Average Absorbance
Water	0.001

E. Correction factors for permanganate test:

	Specs		Absorbance Obtained			Correction Factor
	Min. A	Max. A	Min. A	Max. A	Av. A	
Water	0.12	0.36	0.157	0.186	0.172	1.40

F. Potassium permanganate oxidizable extractables test:

	Max. A Allowed	Max. A in scan	After Correction
Water	0.15	0.001	0.000

G. Correction factor for the UV absorption test:

Absorbance max ca. 287 nm.			
Specs at A Max.		Abs. Obtained at A Max.	Correction Factor
Min. A	Max. A		
0.08	0.14	0.108	2.24

H. UV absorption test:

	Max A Allowed	Abs. at ca. 287 nm	After Correction
Water	0.30	0.050	0.103
Heptane	0.10	0.012	0.016

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SUBJECT
Scott Perry

D/5055

2 July 1990

EXTRACTION TESTS ON VPK FILM

Attached is a copy of my report on the determination of nonvolatile extractives for our VPK film.

Also attached is a copy of a letter send to John Kay informing him of the test results and recomending a follow-up report of the final results by Goodyear.

Scott Perry
Scott Perry

Distribution:

Sally Kline

Joe Vyvoda

Keith Gardner

D'Lane Wisner

Wally Bachtel

21641001

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