

INTER-OFFICE MEMO

TENNECO CHEMICALS, INC.

TO H. B. Carr

At Burlington

DATE December 17, 1973

FROM F.W. Kanzler

AT Burlington

COPY TO H.R. Horton
W. Miringoff
~~File~~

SUBJECT Polyvinyl Alcohol (PVA),
Air Products Vinol 540

In the effort to establish alternate raw material supplies, a sample of the Air Products PVA, Vinol 540 was evaluated analytically as the first step of the process of alternate supplier certification.

The sample submitted by Air Products showed no great deviation from the established specifications and/or the typical values for shipments of PVA during 1973 (Table I). Furthermore, infrared analysis of the sample indicates the same level of hydrolysis as indicated for the Elvanol control. This is evidenced by the similar ratios found for the primary functional groups in the infrared spectrum of PVA (Table I).

Based on the above, it is suggested that Vinol 540 be evaluated by Process Engineering.

F.W. Kanzler

Attachment.

FWK/jst

TABLE I

VINOL 540 EVALUATION.

Analysis	<u>Vinol 540</u>	<u>Typical</u>	<u>Specification</u>
Brookfield	35.0	32.5-45.0, $\bar{x} = 35.4$	DAR
pH	6.5	5.4-6.8, $\bar{x} = 5.7$	6-8
Volatiles, %	2.2	2.2-3.5	5 max
Contamination	11	11-100+, $\bar{x} = 41$	DAR
Ferromagnetic Contamination	50+ very fine	14-50+, $\bar{x} = 35$	DAR
On 40 mesh, %	30	25-50	DAR

INFRARED ANALYSIS, RATIOS

	<u>Vinol 540</u>	<u>Control</u>
OH/CH	1.42	1.49
COOH/CH	1.42	1.41
COOH/OH	1.00	0.95