

INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

TO	D. Johnson	AT	Flemington	DATE	February 22, 1972
FROM	F.W. Kanzler	AT	Burlington	COPY TO	H.B. Carr F.E. Love J.W. McBroom M.W. Williams ✓File
SUBJECT	Premex Type 385 Resin				
	Reference: Memo F.W. Kanzler from D. Johnson dated 2/14/72				

The samples submitted by you were analyzed as requested. Table I (attached) lists the results of the polymer tested. The sample from lot 611057 showed an unusually high level of TCE which is also reflected in the high level of total volatiles. Analyses run in the past showed a residual TCE level of around 1000 ppm. Lot number 611039 and the Tenneco control lot 651003 showed a level of what is considered to be the normal level of residual TCE. The residual vinyl acetate levels of the Premex polymer are lower than the levels found in the Tenneco Copolymers. The bound acetate level for both Premex lots is low out of Tenneco specification for 315 type resin (13.7-15.7%).

The Thermolite 31 sample was first subjected to a Karl Fischer moisture analysis. A sample of Nuostab 1562 was used as a control. Relatively high moisture results give reason to believe that a chemical interference during the titration may take place. Next, an infrared scan was performed on both samples. The scans yielded identical spectra with the exception of an absorption at 1550 cm^{-1} (6.67μ) observed in the spectrum of the Nuostab 1562 sample. This activity indicates the presence of a salt in the Tenneco stabilizer which is not present in the sample of the stabilizer submitted by RCA in Mexico. This analysis was followed by a total volatile determination under vacuum. This type analysis was suggested by C.W. Johnston to see if there is a difference in the low boiling volatiles of the two (2) samples. The samples were subjected to a temperature of 70°C and a vacuum of about 27 inches for a period of one (1) hour. The Thermolite showed a total volatile level of 3.6% while the Nuostab 1562 yielded a total volatile level of 1.9%. A yellowing of the Nuostab 1562 was noted, the T-31 retained its clear appearance.

The biscuit sample was again subjected to UV light examination. The bulb used in Burlington is a long wave bulb (3660 Å). The biscuit gave no indication of degradation when inspected under the UV light.

F.W. Kanzler
F.W. Kanzler

Attachment.

FWK/jt

COLORITE 016587

TABLE I

<u>Sample Identification</u>	<u>Bound Acetate</u> %	<u>Residual VAcM</u> ppm	<u>Residual TCE</u> ppm	<u>Total Volatiles</u> %
611039	13.2	2050	1030	0.37
611057	13.1	2340	2870	0.84
651003	15.4	2910	1030	0.49

Date of Report

2/22/72