

INTER-OFFICE MEMO

TENNECO CHEMICALS, INC.

4/19  
HC  
IOM 194

M. Friefeld

Flemington

April 9, 1973

TO

AT

DATE

FROM T. Noone

AT Carlstadt

F. Leotta  
COPY TO E. Peretz

SUBJECT

We are sending you four samples of plasticiser. Two of them are from Stoney-Mueller and we would like to have some check on these materials as they are from a new supplier. If you could do a G.C. on them and also a refractive index on these and send us the results we would appreciate it. What I want is to have some data which we can refer back to if we do get any problems.

The other two samples are from Union Carbide which could possibly be used as a standard.

Don Noone

TN/ero

M.F. APR 12 1973

CCHL

C 4/12 Xx H. Can - pls handle, m 7

## II. SPECIAL TESTING

### A. Resin Plant

#### 1. Raw Material

##### a. Antifoam Evaluation

Witco submitted an antifoam (BR58-28) which was found to be equal or better to TBP in both the foam retarding and defoaming characteristics. In addition, a Betz defoamer was tested using one of their homemade antifoam test apparatus. The Betz defoamer was found to be unsatisfactory. A test apparatus similar to the one used by Betz will be constructed in Burlington. A report will be issued when the construction of the antifoam tester has been accomplished.

##### b. Sodium Lauryl Sulfate

Witco Ultra-Sulfate-1 has been put on the approved supplier's list after satisfactory plant trials.

#### 2. In-Process

##### a. Filter Cloth Evaluation

A total of 11 filter cloth types were evaluated via leaf filtration. Types of cloths tested were multifilament as well as monofilament cloths with plain and satin weave. Amtec submitted 4 cloth types for evaluation. All yielded unsatisfactory results. From the 7 cloths tested submitted by Tobler, Ernst and Traber (TET), 2 were found to be of interest. One cloth has been ordered and will be no cost to Tenneco if the cloth will last under 6 weeks. The cloth evaluated presently on drum #1 has completed 6.25 weeks of run time at the time of writing. The productivity remained relatively constant and ranged from 900 - 1,200 lbs/hour (1,100 - 1,500 for normal cloth). It must be noted, however, that part of the productivity is lost (~10 - 20%) because of a faulty doctor blade on #1 filter (Process Engineering is investigating a new doctor blade). Excessive downtime on this filter indicates that this cloth type is far superior to our presently used cloth (long downtime causes cloth blinding). Another cloth is presently being evaluated on #3 filter. This cloth is from Goodman Company and is a multifilament satin weave. Productivity is at present from 1,500 to 1,800 lbs/hour. The cloth is about 2 weeks old.

##### b. Solids in the Batch Mix tank - "A" Plant

A sample of a solid build-up found in the "A" Plant batch mix tank was identified as polystyrene.

c. TCE in Filter Effluent

A filter effluent sample from a 150 resin run was checked for possible TCE contamination.

3. Finished Product

a. Dispersion Resin Air Release Specifications

Tentative air release specifications have been set for all dispersion resin types save 1716. Due to a wide range of 1716 and limited data available, this resin type was put on a DAR status. Once more data becomes available, a specification will be set.

b. Volatiles in BR-501 - Specification

Data on hand is not representative of new production schedules. Most of the data available are from runs through the 10M-lb dryer. The higher volatile levels, however, were experienced in the 40M-lb dryer line. More data is needed to set a realistic specification.

B. Compound Plant

1. Raw Materials

a. Lead Analyses of Stabilizers

Analysis capabilities for determination of lead in dibasic lead stearate and tribasic lead sulphate have been established. Lead assays will be performed on all incoming shipments of these raw materials.

b. Plasticizers

(1) DIOP

DIOP has been introduced to the Compound Plant as a substitute for DOP. Analysis capabilities have been established for this raw material. Infra red and gas chromatographic analyses of the two DIOP shipments showed only small amounts of impurities (less than found in DOP).

(2) DTDP from Cary-Page

A recent sample of DTDP submitted by Cary-Page was identified as DTDP with no unusual cross contamination.

C. Flemington

1. Resin Plant

a. Monomer Balance

This program was continued with the characterization of residual monomer in 200-2 resin.

b. Particle Size Control

A meeting was held in Burlington to review this Process Engineering program. The data generated in Flemington and Burlington presented a good characterization of the parameters tested. Based on this, a reduction in test frequencies was agreed upon. An interim report will be issued by Process Engineering.

A total of 21 water analyses in VCM, phenol in VCM and water analyses were performed in support of this effort.

2. R&D

a. Haze Analyses

This program was continued with the characterization of residual monomer in 200-2 resin.

D. Miscellaneous

1. DTDP and DOP from Stoney-Mueller

Samples of the above plasticizers were submitted by T. Noone, Carlstadt for evaluation. Along with the samples from Stoney-Mueller two samples of the same plasticizers from Union Carbide (UC) were submitted as a standard. It was found that the Stoney-Mueller DTDP had a cross contamination level of 0.28% of DOP (the UC DTDP showed <0.1% DOP). The Stoney-Mueller DOP contained 2.02% of DTDP while no DTDP was detected in the UC DOP.

2. Air Pollution Seminar

The writer attended an air pollution seminar from March 26th to 28th. Topics covered were testing, instrumentation and calculation of emitted pollutants.

3. Personnel

Mr. W. Stewart joined Tenneco on April 2, 1973 as a chemist in the Analytical Laboratory of Burlington Quality Control.

4. Running Account of Analyses

| <u>October</u> | <u>November</u> | <u>December</u> | <u>January</u> | <u>February</u> | <u>March</u> |
|----------------|-----------------|-----------------|----------------|-----------------|--------------|
| 365            | 264             | 340             | 419            | 418             | 428          |

*F. W. Kanzler*  
F.W. Kanzler

FWK/jst