

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

TO H.B. Carr AT Burlington DATE January 25, 1971
 FROM F.W. Kanzler AT Burlington COPY TO K.C. Entwistle
 H.R. Horton
 SUBJECT Monthly Progress Report ✓ File

I. ROUTINE ANALYSESA. Raw Material Evaluation

IR Scan	6
MVC Light End Impurities {THC}	8
" " " " {PPG}	7
" " " " {Dow}	1
Acetylene in MVC {PPG}	10
" " " " {Dow}	1
L ₂ O ₂ (Assay, A(0))	8
2-EHP (Assay, A(0))	3
Avirol	
% FAS	1
Cloud Point	1

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B. In-Process Analyses

Trace Oxygen Analysis, Compressor	1	6
" " " "	3	8
" " " "	4	1
" " " "	5	2
" " " "	6	6
Phenol in the Copolymer Recovery System		5
Phenol in the Fume Scrubber		7
A (0) in the Twin Strainer Basket		7
Sodium Lauryl Sulfate Storage		
Brookfield Viscosity		2
% FAS		2
Cloud Point		2
DM Water (Iron, Copper, pH, DO, o-PO ₄)		
Hot Water Storage		1
Cold Water Storage		1
Boiler House		1
COD AI		14
COD FCE		14
Phenol AI		2
Phenol FCE		2
% FAS AI		2
% FAS FCE		2
Well Water (pH, Iron)		2

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C. Finished Product Analyses

Brabender Extruder Gel Determination	30	
Bound Acetate in PVC	36	
Determination of Water by the Karl		
Fischer Method	1	
% FAS (AR901)	1	68
	TOTAL	203

II. SPECIAL PROGRAMS

A. Instrumentation

1. Perkin-Elmer 810 Gas Chromatograph

This gas chromatograph was put on-stream during the report period. A column was packed and installed in the instrument to perform phenol in RMVC-VAc analyses. Initial sensitivity of the instrument was very good, however, a better gas flow control system must be installed to achieve better reproducibility.

B. Meetings

1. Alcolac Sodium Lauryl Sulfate

A meeting with a representative of the subject company was held in Burlington. Initial results were for Alcolac to evaluate the Standard Chemical sodium lauryl sulfate and submit a sample of the "improved" Sipex for evaluation. Test procedures are to be sent to Burlington. No further activity was noted as a result of the meeting.

2. In-Process pH Meter

This meeting was held with P.E. with the aim to find a more economical way for the installation of this in-process equipment. Two sample points have been established to monitor latex in Plants 4 and 8 with a considerable reduction in cost when compared with the Plant Engineering estimate.

3. Oxygen Analyses of Plastisol Reactors and Batch Mix Tank (Project No. 00-041, Sub. AC3)

The aim of this meeting with P.E. was to establish a meaningful analysis frequency. As a result, bomb samples will be taken and submitted by P.E. for analysis on a daily basis. No more than four samples per day are expected to be submitted. A total of five oxygen analyses were performed.

C. Special Plant Support

1. 1730 Task Force

A total of thirty-three photomicrographs were taken in support of this effort. Initial findings show

contamination of the latex by fibers from the Cuno filters and accumulation of fibers from the filter drums in the atomizers. Both fiber types are present in the finished product. In addition, fused and burnt resin particles were identified and with only a small percentage of particles found to be without a fiber nucleus.

2. 389 Copolymer

To help to overcome the problem encountered with this resin, gelatin storage facilities were reviewed and the present inventory of the raw material retested. In addition, MVAc shipment samples were subjected to gas chromatographic analysis. Findings which are not finalized show a possible relationship of the impurities found in the MVAc with the particle size distribution. Additional investigations will be made to confirm the initial results.

3. MVC Flemington Plant

a. Storage Tank

During difficulties with particle size distribution in PVC in Flemington, a storage tank sample was submitted for analysis of light end impurities, acetylene and iron.

b. Allied

Two tank cars of Allied MVC was received in Flemington. To help evaluate all of the competitive MVC, two trace oxygen analyses were performed.

III. ACTIVE PROJECTS

The status of active projects are noted in the project sheets (attached).

F.W. Kanzler

F.W. Kanzler

Attachments (6).

FWK/jt

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MAN-HOURS:

To establish raw materials testing of sulfuric acid, lime and aqua ammonia with specifications and internal control procedures.

6/24/70	No activity.
7/24/70	Raw Material spec for H_2SO_4 issued, method for assay in stage of writing.
8/24/70	Method written and issued for H_2SO_4 assay.
9/24/70	No activity.
10/24/70	Methods to be written during the coming report period. (New estimated completion date - 11/15/70.)
11/24	Method for determination of aqua ammonia was written and will be issued as TAM. High priority programs prevented the writing of a method for lime analyses. (New estimated completion date - 12/31/70.)
12/24/70	No activity.
1/24/71	No activity. (New estimated completion date: 2/28/71.)

COLORITE 013782

TENNECO PLASTICS DIVISION
QUALITY CONTROL

<u>PROJECT NUMBER:</u> 10-037	<u>ISSUED BY:</u> HBC	<u>DATE STARTED:</u> 12/1/68
<u>SU. NUMBER:</u> AC2	<u>TO:</u> FWK	<u>EST. COMP. DATE:</u> 12/1/70
<u>TITLE:</u> Bottle Polymerizer	<u>APPROVED:</u>	<u>DATE COMP.:</u>
	<u>NOTEBOOK REF:</u>	<u>EST. MAN-HOURS:</u> 50
		<u>MAN-HOURS:</u>

OBJECTIVE:

To set up bottle polymerizer in the present Homopolymer Laboratory once Maintenance completes the rearrangement and to coordinate procedures, testing and testing frequency with E. Farber and P.E..

STATUS AS OF:

6/24/70	No activity.
7/24/70	No activity.
8/24/70	No activity.
9/24/70	No activity.
10/24/70	No activity.
11/24/70	Plans are drawn by Plant Engineering for the installation of an exhaust hood. (New estimated completion date - 1/31/71.)
12/24/70	Plant Engineering has secured quotes for three different hoods and will issue a memo for approval of one of the systems.
1/24/71	No activity.

NOTES:

TENNECO PLASTICS DIVISION
QUALITY CONTROL

<u>PROJECT NUMBER:</u> 00-041	<u>ISSUED BY:</u> HBC	<u>DATE STARTED:</u> 5/25/70
<u>SU NUMBER:</u> AC3	<u>TO:</u> FWK	<u>EST. COMP. DATE:</u> 8/1/70
<u>TITLE:</u> Oxygen Analyzer	<u>APPROVED:</u>	<u>DATE COMP.:</u>
	<u>NOTEBOOK REF:</u>	<u>EST. MAN-HOURS:</u> 38
		<u>MAN-HOURS:</u>

OBJECTIVE:

To establish procedures and reporting of data coordinating with P.E., Production and Plant Engineering in reactor evacuation efficiency, oxygen in Plastisol Batch Mix Tank and effects on oxygen kinetics.

STATUS AS OF:

6/24/70	Intermittent sampling and analyses were performed during the report period.
7/24/70	Again analyses were performed when requested by P.E..
8/10/70	Program set up by AVW for BMT and reactor sampling. Program given to KCE.
8/24/70	No activity.
9/24/70	No activity. Waiting for installation of sample points.
10/24/70	No activity. Waiting for installation of sample points. (New estimated completion date - 12/1/70.)
11/24/70	No activity. (New estimated completion date - 2/15/71.)
12/24/70	Initial analyses were performed. Project will be continued.
1/24/71	P.E. program started. Project closed.

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OBJECTIVE:

STATUS AS OF:

N ES:

6:

MAN-HOURS:

COLORITE 013786

TENNECO PLASTICS DIVISION
QUALITY CONTROL

<u>PROJECT NUMBER:</u>	00-056	<u>ISSUED BY:</u>	HBC	<u>DATE STARTED:</u>	8/3/70
<u>SL NUMBER:</u>	AC19	<u>TO:</u>	FWK	<u>EST. COMP. DATE:</u>	10/15/70
<u>TITLE:</u>	Determination of Nitrogen in MVC	<u>APPROVED:</u>		<u>DATE COMP.:</u>	
		<u>NOTEBOOK REF:</u>		<u>EST. MAN-HOURS:</u>	15
				<u>MAN-HOURS:</u>	

OBJECTIVE:

To develop a method for the determination of Nitrogen in MVC.

STATUS AS OF:

8/25/70	No activity.
9/25/70	No activity.
10/25/70	No activity.
11/25/70	No activity.
1/5/71	No activity.

NOTES: