


 UNION
CARBIDE

INTERNAL CORRESPONDENCE

CHEMICALS AND PLASTICS

 J. S. W.
P. O. BOX 471, TEXAS CITY, TEXA 77590

 TO (NAME) Mr. R. N. Wheeler
 COMPANY SOUTH CHARLESTON PLANT
 LOCATION

DATE December 5, 1967

 COPY TO Mr. J. H. Barrett
 Mr. G. P. Bigelow - 501
 Mr. C. E. Bowman
 Mr. W. D. Bush/Mr. F. L. Johnson
 Mr. O. T. Carlisle/
 Mr. D. E. Richardson
 Mr. A. J. Costantin - 501
 Mr. J. H. Field
 Mr. N. A. Gimber/
 Mr. J. F. Erdmann
 Dr. W. R. Manning - 511 -
 Mr. L. G. Peyton
SUBJECT Residual Vinyl Chloride Content
of Suspension Vinyl Resin

During the October 11-12, 1967, Business Team meeting, the residual vinyl chloride content of our finished suspension vinyl resins received appreciable discussion. It was reported at that time that only QYSA and QYTQ-7 production is monitored for free vinyl chloride monomer on a continuing basis in compliance with a Special Customer Requirement of Armstrong Cork Company, Lancaster, Pennsylvania. As business team members expressed significant concern regarding the safe use of our suspension resins in captive and customer process equipment, a complete review of residual vinyl chloride monomer levels in all resin types was requested. The attached data represent current free monomer levels in spot samples taken from the dryer systems.

While residual free vinyl chloride monomer levels have decreased significantly across the board since installation of vacuum stripping equipment (May, 1966), the limited data indicate that frequent undesirably high (above 0.05%) monomer levels still exist past the dryers. QYSA and Process-10 resins appear to be the worst offenders; significant variation in free monomer content of Process-7 resins is also apparent.

It is proposed that spot dryer samples continue to be taken until significant data for all resin types have been accumulated. Additionally, van box samples will also be taken, as time permits, to more nearly reflect free monomer levels that an end-user of the resin might experience.


 J. S. Hockersmith

 JLH/aab
 Attachment

 UCC
 038791

Resin Type
Date of Sample
Total Volatile, Wt %
Free Vinyl Chloride, Wt %

QYSA ⁽¹⁾			
<u>10-31-67</u>	<u>11-2-67</u>	<u>11-6-67</u>	<u>11-8-67</u>
0.8	2.0	1.7	0.8
0.20	0.17	0.12	0.13

Resin Type
Date of Sample
Total Volatile, Wt %
Free Vinyl Chloride, Wt %

QSAH-7		QYSM	
<u>11-12-67</u>		<u>11-30-67</u>	<u>12-1-67</u>
1.3		0.8	0.3
0.21		0.03	0.05

Resin Type
Date of Sample
Total Volatile, Wt %
Free Vinyl Chloride, Wt %

QYTQ-7 ⁽¹⁾			
<u>11-22-67</u>	<u>11-27-67</u>	<u>11-29-67</u>	<u>11-30-67</u>
0.6	0.2	0.2	1.6
0.03	0.08	0.03	0.16

Resin Type
Date of Sample
Total Volatile, Wt %
Free Vinyl Chloride, Wt %

QYSL-7		QSAN-7 ⁽²⁾						
<u>11-22-67</u>	<u>10-16-67</u>	<u>10-31-67</u>	<u>11-2-67</u>	<u>11-3-67</u>	<u>11-6-67</u>	<u>11-29-67</u>	<u>12-1-67</u>	
0.4	0.1	0.3	0.1	0.2	0.2	0.2	0.2	
0.05	0.01	0.15	0.03	0.08	0.10	0.03	0.01	

Resin Type
Date of Sample
Total Volatile, Wt %
Free Vinyl Chloride, Wt %

VSJD-10						
<u>10-16-67</u>	<u>11-2-67</u>	<u>11-3-67</u>	<u>11-6-67</u>	<u>11-8-67</u>	<u>11-29-67</u>	
1.8	1.3	2.3	1.4	1.4	1.6	
0.17	0.01	0.17	0.15	0.13	0.12	

(1) Dryer samples prior to air purge of bins.

(2) Double-washed.