



Air Products and Chemicals
INC.

ESCAMBIA PLANT

INTEROFFICE MEMORANDUM

Copy J. Barr

To: Mr. A. K. McMillan ✓

Date: 19 February 1974

From: R. R. Spiegelhalter

Copies: R. E. Jones
R. W. Wolfe
Dr. W. J. Zubyk
M. H. Sterman

Re: VCM Impurities
Conoco VPC Analysis

The plant chemist, Paul Fetzer, at the Conoco Lake Charles, La. VCM plant, was contacted concerning specific impurities in their monomer, levels of the impurities, and the frequency of analysis for impurities.

1. Each check tank and storage sphere prior to transferring VCM are analyzed by VPC. A statistical study showed that tank cars did not have to be analyzed.
2. The following impurities are determined by Conoco's method:

Method 1

Methane
Ethane
Ethylene
Propane
Propylene
iso-Butane
n-Butane
Acetylene
Methyl Acetylene
trans-Butene - 2
Butene - 1
1, 3 - Butadiene
cis - Butene - 2
Methyl Chloride
Vinyl Chloride
Ethyl Chloride

Method 2

Methane
Ethane
Ethylene
Acetylene
1, 3 - Butadiene
Vinyl Chloride
Ethyl Chloride
Vinylidene Chloride
Chloroform
Carbon Tetrachloride
1, 1 - Dichloroethane
Ethylene Dichloride

3. The only impurities detected and reported are 1, 3 - butadiene and methyl chloride. Other impurities can be detected at levels of 0.5 ppm or less.

4.0 ppm

5.15 ppm

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Mr. A. K. McMillan

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*Asked Spike to
find out who we
talk to in Conoco
to get this
study done
Rami*

4. Conoco made a study of monomer quality last year using VPC and mass spectrometer techniques. The results have not been made available to Mr. Fetzer.

Based on our work, 1,3 - butadiene and methyl chloride are the only impurities normally seen in Conoco monomer. Some evidence of propylene in a few samples was obtained⁽¹⁾. Conoco confirmed traces of propylene infrequently.

The quality study of VCM within APCI will be continued to confirm the Conoco quality reports. The reagents for the Conoco columns are on order and method will be evaluated as soon as possible.

(RS)

R. R. Spiegelhalter

RRS:bp

⁽¹⁾R. W. Wolfe to Distribution, "Status of VPC Method for Vinyl Chloride Monomer," Feb. 18, 1974.

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