

Inter-Office Memo

TENNECO CHEMICALS, INC.

To H. B. Carr At Burlington Date July 31, 1969

From F. W. Kanzler At Burlington Copy to E. Farber
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File

Subject Round Robin Analysis of MVC
(Reference: Memo to H. B. Carr from
F. W. Kanzler, July 17, 1969)
Project No.: 70-001

As indicated in the reference memo, the Burlington Analytical Control group has participated in a round robin analysis of light end impurities in MVC. Participating laboratories were: Dow, PPG, Conoco, Tenneco Hydrocarbon, Tenneco Burlington. The purpose of the round robin was to evaluate the standardization procedures and to establish a correlation between laboratories. The following points are noted in reviewing the data in Table I attached:

1. Only Dow, Tenneco Hydrocarbon, and Burlington have identified and quantified all the impurities.
2. As pointed out previously by Burlington, the Tenneco Hydrocarbon laboratory reliance on standardization by constant factor is subject to error.
3. As a result of this round robin, Tenneco Hydrocarbon has agreed to establish a standard based on the round robin sample. Further, Tenneco Hydrocarbon will run the standard twice a day as a check of the instrument response.
4. Burlington's agreement with the outside laboratories was excellent with the exception of propylene and allene. Since only these two impurities are in disagreement, it is felt that a sampling error has been introduced. Burlington has restandardized and reanalyzed allene on different days with the following results:

Burlington standard	35 PPM	33 PPM
Round robin sample	49 PPM	50 PPM

Tenneco Hydrocarbon has been requested to reanalyze the Burlington round robin sample which will be forwarded to their laboratory.

F. W. Kanzler

F. W. Kanzler

FWK/rjl

Attachment

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TABLE I

Impurity Gases	Laboratories				
	<u>Dow</u>	<u>PPG</u>	<u>Conoco</u>	<u>T.H.C.</u>	<u>Burlington</u>
Propane	0.6	-	0.5	3	2
Propylene	1.9	-	1.8	11	11
Allene	19.7	17.6	18.6	107	49
Butane	0.8	-	-	3	1
Butene-1	0.8	-	-	3	1
Methyl Acetylene	2	-	1	8	2
Methyl Chloride	12	9	7	18	9
1,3 Butadiene	4	3	3	9	3

All values are in parts per million.