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## **GC Analysis of Methanol with Off - Odors**

### Summary:

Industry research has indicated that unusual odors in methanol are a common problem and stem from low - level mercaptans and / or amines found in the natural gas raw materials used in production. Odors from these types of compounds can be noticeable at low part per million (ppm) levels and have not been shown to have any negative impact on product performance at these concentrations. In addition, the analytical work below finds no correlation between off – odors and relative product purity as assessed by gas chromatography.

### Objective:

In response to concerns regarding unusual odor in methanol product, GC - FID was used to investigate three samples - one of which had no detectable odor.

### Samples:

- 1) Methanol: 10471JC “Good”
- 2) Methanol: 01034KD “Odor”
- 3) Methanol: 01143JD “Odor”

### Observations:

As displayed in Figure 1, no major impurities were observed with either of the analyses and all of the samples presented with > 99.9% purity – the specification for this grade of material. No significant peaks were observed in either analysis that were specific to both “Odor” lots and not found in the 10471JC “Good” material.

**Figure 1 – GC / FID Analysis of Methanol Samples**

