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GC ANALYSIS OF DENATURED ALCOHOL

(mo/yr)

Revisions		Rev:	
Letter	E.O. Number - Description	Date	

Used On	Contract#:		**Your Company Name**				
Prepared By:							
Originator:							
Your Dept:			**LABORATORY PROCEDURE**				
Your Dept:							
Your Dept:			Your Procedure #				
Your Dept:			Size:	**A**	CAGE:		Form Rev: Orig 1 of 4

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1.0 Purpose of Process

A gas chromatograph can be used to quantify the amount of isopropyl alcohol in each lot of denatured alcohol prior to its introduction into the production process.

2.0 Process Definition

To determine the amount of isopropyl alcohol in each lot of denatured alcohol, a sample of alcohol from the lot must be analyzed by gas chromatography. The general parameters for analysis of denatured alcohol by gas chromatography are found in "Reagent Chemicals", American Chemical Society Specifications, American Chemical Society, Washington, DC, 2nd Edition, 1993, page 56.

3.0 Equipment

3.1 Beakers of various sizes
3.2 Gas Chromatograph
3.3 Micro-Pipette
3.4 Sampling Apparatus
3.5 Type 1 (methyl silicone) Capillary Column

4.0 Materials

4.1 Isopropyl Alcohol

5.0 Preparations

The GC must be warmed-up and characterized prior to each use according to the procedure herein.

6.0 Document Review

6.1 "Reagent Chemicals", American Chemical Society Specifications, American Chemical Society, Washington, DC, 2nd Edition, 1993, page 56

7.0 Safety Requirements

7.1 Safety Equipment

The technician performing the analysis should wear the appropriate gloves, lab coat, and safety glasses.

7.2 Safety Precautions

If any of the glassware breaks during the procedure, the technician should dispose of the remains in the receptacle in the lab specifically for broken glass. If the technician has any trouble or questions, he/she should immediately contact an Environmental Health and Safety representative.

8.0 Technician Responsibilities

The technician should understand how to operate all measuring devices used in the procedure. The technician should understand the calculations and ask questions if the calculations seem unclear. The technician is responsible for [redacted] The technician should have knowledge of the following documents: [redacted]

9.0 Process Controls

The analysis should be performed according to the procedure described herein.
Any changes to the original document should be approved through the lab supervisor and sent through the signature process to maintain configuration control. All of the required data should [redacted]

10.0 Procedures

10.1 Obtain a 10ml sample of denatured alcohol from each lot received using clean sampling apparatus and beaker.

10.2 Record material lot traceability information.

NOTE: Traceability information is [redacted]

10.3 Start the GC according to its Operation Manual.

10.4 Prepare a 100ppm isopropyl alcohol sample according to the Procedures for Preparing Standard Reagents, Miscellaneous Solutions and Indicators.

10.5 Measure the 100ppm alcohol standard and record the results – do not correct for [redacted]

10.6 Measure the test denatured alcohol samples and record the results – do not correct for [redacted] Notify the Lab Supervisor if any isopropyl alcohol is detected.

10.7 Repeat the measurement of the 100ppm isopropyl alcohol sample and record the results – do not correct for [redacted]

10.8 Compare the 100ppm standard, test samples and 100ppm duplicate test results for [redacted] – notify the Lab Supervisor if the GC will not respond as expected after one retest.

10.10 Use the copy machine to reduce each chromatogram to letter size making sure all data is transferred. Submit the results in the form of [redacted]