

Trace Oxygenated Hydrocarbon Streams by Gas Chromatography

UOP 960

Configuration of an Agilent Technologies 7890N Gas Chromatograph with a flame ionization detector (FID) to determine trace levels of individual oxygenated hydrocarbons, with boiling points up to

138 °C, in light isomerate and naphtha. Mono-oxygenated hydrocarbons determined include C1 through C5 alcohols, and C2 through C4 carbonyls and ethers. Di-oxygenated hydrocarbons determined include C2 through C4 methyl esters and 1,4-dioxane. The analysis is configured to UOP method 960.

Repeatability Table UOP 960 RSD = Relative Standard Deviation

64.89 ppm 2-butanone in cyclohexane

FID A

Runs	2-butanone Retention Time	Area	Rsp.Factor	Amount	Reference on UOP Repeatability Difference with Average Value
1	13.05	742.45	0.093	68.88	0.95
2	13.05	735.40	0.093	68.23	0.30
3	13.04	735.55	0.093	68.24	0.31
4	13.04	729.98	0.093	67.73	-0.21
5	13.04	726.74	0.093	67.43	-0.51
6	13.03	726.86	0.093	67.44	-0.50
7	13.03	728.49	0.093	67.59	-0.34
Average	13.03928571	732.21		67.94	0.00
St. Dev.	0.01	5.39		0.50	
% RSD	0.05%	0.74%		0.74%	